

# 2013 Forrester Study Summary

## *"Choosing the Right Procure-to-Pay Solution for the Commonwealth of Virginia"*

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**Objective:** Determine whether the Commonwealth should integrate eVA with the new PeopleSoft ERP or replace eVA with the PeopleSoft Procurement modules. (SLIDE 5)

**Recommendation:** The Commonwealth should:

- ✓ Standardize its procure-to-pay processes on an expansion of its existing eVA system (SLIDE 6)
- ✓ Continue with eVA, while making investments to provide full real-time integration between eVA and the Cardinal and all non-Cardinal ERP systems. (SLIDE 80)

**Basis for Recommendation:** (SLIDES 6, 7, 24, 80)

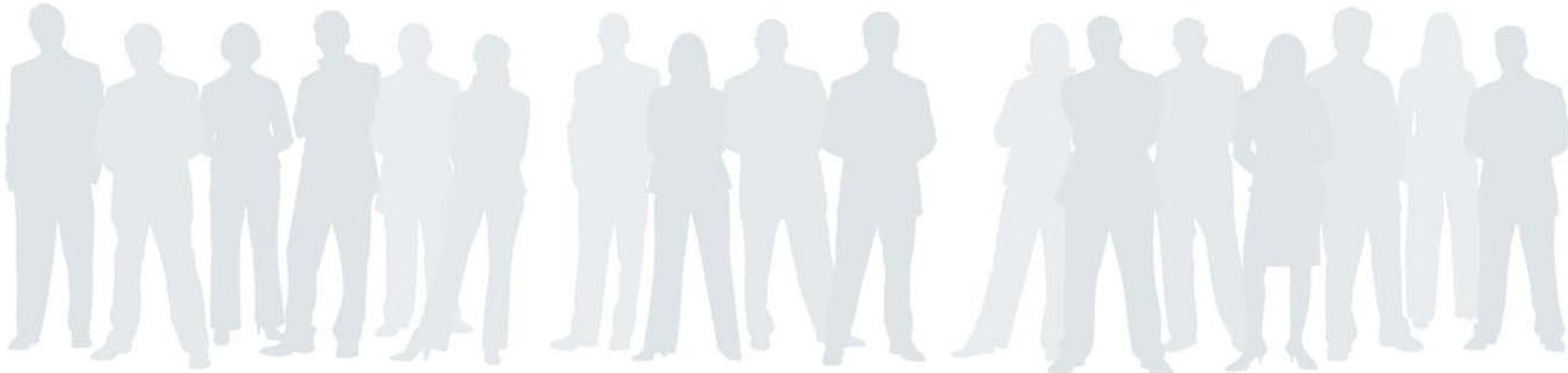
- Forrester Wave Scores:            eVA - 4.19                    Cardinal - 3.86
- Forrester TEI 5-Year NPV:       eVA - \$65.8M                Cardinal - \$76.6M
- eVA provides better functionality for procure-to-pay, and better integration with non-Cardinal ERPs and with suppliers, outweighing Cardinal procurement's better integration with other PeopleSoft ERPs.
- eVA's integration would have much lower initial investment than a Cardinal procurement roll-out, though Cardinal after full roll-out would have lower annual operating costs. On a net present value basis, eVA's total five year costs are about 10% lower than Cardinal's.
- Factoring in eVA's supplier fees and its operational savings to local governments, eVA would have significantly lower costs and lower risks.
- The transition risks and disruption of changing from the current eVA procure-to-pay system to a Cardinal-based system are significant, and may well be understated in our analysis.
- The costs of the eVA option could well be lower than has been estimated.
- The costs of the Cardinal option could well be higher than has been estimated, due to unexpected challenges and costs in rolling it out to other agencies and making adjustments and enhancements to meet their needs.
- eVA is currently delivering to the Commonwealth over \$40 million in documented annual savings due to its inclusion of spending from all CoVA agencies, universities, and many local governments. Any narrowing of the scope of coverage of those buyers through exclusion of universities or local governments would reduce the volume of spending with suppliers, and thus potentially reduce those savings by \$8-\$12 million per year.
- eVA's approach to procure-to-pay is broader and more inclusive than Cardinal's.
- eVA option provides better procure-to-pay functionalities than the PeopleSoft equivalent.
- The risks involved in switching from eVA to Cardinal are significant.

## Findings Summary:

eVA		Cardinal	
Interviews showed (SLIDE 11) <ul style="list-style-type: none"> <li>- Agencies generally satisfied with eVA except for manual process to compare PO to Invoice data</li> <li>- Local Governments very positive about eVA</li> <li>- Most agencies reported suppliers satisfied with eVA</li> </ul>		Interviews showed (SLIDE 11) <ul style="list-style-type: none"> <li>- VDOT dissatisfied with eVA, prefer PeopleSoft</li> <li>- VDOT suppliers felt they get little value from eVA</li> </ul>	
The Commonwealth has one of the most ambitious state government procurement systems. (SLIDE 12)			
eVA is used as the front-end requisition system by 202 agencies. (SLIDE 32) Over 600 Local Governments and Private Colleges use eVA. (SLIDE 12)		Cardinal procurement is used as the front-end requisition system by VDOT, with real-time integration into Cardinal ERP. (SLIDE 32)	
eVA in 2012 had over 13,000 individual users, captured almost 700,000 purchases and supported over \$6B in spending with 37,000 suppliers, delivering over \$30M in documented savings. It is believed that no other state has this level of usage. (SLIDE 12)			
eVA would need to do back-end process changes for linking to financial systems. (SLIDE 40)		Cardinal would need both front-end and back-end process changes. (SLIDE 40)	
eVA Forrester Wave score = 4.19 (SLIDE 52)		Cardinal Forrester Wave score = 3.86 (SLIDE 52)	
eVA 5 Year Deployment/Integration Costs: (SLIDE 61) Amortized = \$65.8M Unamortized = \$74.4M		Cardinal 5 Year Deployment/Integration Costs: (SLIDE 61) Amortized = \$76.6M Unamortized = \$145.9M	
<b>Pros (SLIDE 54)</b> <ul style="list-style-type: none"> <li>• Strong support for catalog purchases</li> <li>• Support for direct materials and sourcing</li> <li>• Most buyers trained and using eVA</li> <li>• Most suppliers trained and using eVA</li> <li>• Strong supplier (Ariba) network</li> <li>• Strong catalog management with punch-out to over 200 suppliers</li> <li>• Local government usage support</li> </ul>	<b>Cons</b> <ul style="list-style-type: none"> <li>• Current lack of integration with many CoVA ERP financial systems creates costs, inefficiencies, and gaps in visibility through the full procure-to-pay process</li> <li>• Manual process in most agencies for matching purchase orders from eVA with invoices to generate payment vouchers</li> <li>• Average tools for services purchases</li> <li>• Scattered complaints about usability, receipt handling, reports,</li> </ul>	<b>Pros (SLIDE 55)</b> <ul style="list-style-type: none"> <li>• Installed and running in VDOT</li> <li>• Strong support for specification-driven material purchases</li> <li>• Good tools for indirect goods procurement</li> <li>• Average tools for services procurement, but not yet purchased by CoVA</li> <li>• Average tools for e-Invoicing, but not yet purchased by CoVA</li> <li>• License and maintenance cost for core modules already committed</li> </ul>	<b>Cons</b> <ul style="list-style-type: none"> <li>• Catalog management until PeopleSoft V9.2 has been very weak – not yet purchased by CoVA, included in models</li> <li>• PeopleSoft has weak supplier network, so CoVA would need to use Ariba network</li> <li>• CoVA has not purchased or deployed PeopleSoft catalog management, services procurement or e-Settlement (e-Invoicing)</li> <li>• Sourcing and spend analysis tools are average overall</li> </ul>

<ul style="list-style-type: none"> <li>• eva.virginia.gov reporting Website</li> <li>• Good integration tools for and proven integrations into non-Cardinal ERP systems</li> </ul>	<p>and performance</p> <ul style="list-style-type: none"> <li>• A few suppliers still complain about fees</li> </ul>	<p>for full CoVA deployment</p> <ul style="list-style-type: none"> <li>• Ability to combine many procurement product support resources with existing Cardinal Finance system resources</li> <li>• Focus on out-of-box features means less third-party support needed</li> </ul>	<ul style="list-style-type: none"> <li>• Weaknesses in integration to non-PeopleSoft ERPs</li> <li>• Weak support for SWaM</li> <li>• No local government support</li> <li>• No current plans for an external portal like eva.virginia.gov, so added in cost</li> </ul>
<p><b>Risks (SLIDE 73)</b></p> <ul style="list-style-type: none"> <li>• DGS and VDOT have not communicated well in past</li> <li>• eVA Data Integration and Implementation may take longer than planned</li> <li>• VDOT will need to learn new system and be retrained, may take longer than expected</li> <li>• e-Invoicing implementation may take longer than expected</li> <li>• CGI could raise fees</li> <li>• SAP could reduce/end Ariba support</li> </ul>		<p><b>Risks (SLIDE 68)</b></p> <ul style="list-style-type: none"> <li>• All buyers &amp; suppliers must learn new system, can <ul style="list-style-type: none"> <li>- lead to resistance, frustration and rework</li> <li>- lead to greater buyer turnover</li> </ul> </li> <li>• Rollout to many agencies &amp; ERP systems could create unforeseen issues</li> <li>• Cardinal not scoped for web interface for public transparency</li> <li>• Cardinal not planning to support universities and local government (Slide 60 - may lose \$8-\$12M per year in savings)</li> <li>• Cardinal vendor support leaves electronic signatures unaddressed and does not fit multi-location vendors</li> <li>• Cardinal management by DOA but Procurement processes managed by multiple agencies can lead to added cost, confusion &amp; conflict</li> <li>• Oracle has targeted 2027 to end PeopleSoft support</li> <li>• Migration to Cardinal would require law changes</li> <li>• Cardinal will not capture PO numbers from non-Cardinal ERPs, leading to PO-to-Invoice matching issues</li> <li>• Many non-Cardinal agencies may opt out of using Cardinal Procurement reducing benefits of single system</li> </ul>	
<p><b>Flexibility Benefits (SLIDE 74)</b></p> <ul style="list-style-type: none"> <li>• Ariba provides best-of-breed catalog procurement</li> <li>• Multiple vendors allows for greater upgrade flexibility</li> <li>• More organizations can participate</li> <li>• SaaS, multi-tenant solution provides several deployment options</li> </ul>		<p><b>Flexibility Benefits (SLIDE 71)</b></p> <ul style="list-style-type: none"> <li>• Single ERP Financial and Procurement system for Cardinal using agencies</li> <li>• Application ownership (vs. SaaS) can reduce long-term risk</li> <li>• Resources can be used between financial and procurement systems (Fungible resources)</li> </ul>	

# Making Leaders Successful Every Day



# Choosing the Right Procure-to-Pay Solution For the Commonwealth of Virginia

Forrester Consulting

August 23, 2013



# Agenda

- › *Executive Summary*
- › ***Forrester project team members, and interview learnings***
- › *Defining the procure-to-pay process*
- › *The CoVA debate on process-to-pay – eVA vs. Cardinal*
- › *Key parameters for implementing a procure-to-pay system at CoVA*
- › *Evaluation of eVA vs. Cardinal/PeopleSoft procure-to-pay features, functions and integration*
- › *Evaluation of the costs, risks, and benefits of fully integrated and deployed eVA vs. Cardinal/PeopleSoft procure-to-pay systems*
- › *Recommendations*

# Updates since June 25, 2013

We have made the following changes to our analysis since our June 25, 2013 meeting with the Cabinet working group:

## **This update, dated August 23, 2013:**

- Changed the New Mexico information to note that PeopleSoft did replace CGI Advantage as the eProcurement system in the past few years. California & Delaware have been verified and remain unchanged (pp. 28)
- Corrected the statement to note that the annual eVA fee incomes have exceeded the combined CGI and eVA operating costs (pp. 41)
- Format change: highlighted the direct cost comparison numbers by increasing the font size for these items, and de-emphasized the comparisons taking account of supplier fees and local government support by reducing the font sizes and removing the bold text for these items (pp. 6, 67, 72, and 76)

## **Previous update, dated July 26, 2013**

- Updated executive summary (p. 7)
- Information on eVA's fees from suppliers and agencies, VDOT's share of these fees, and VDOT's use of eVA (pp. 41-43)
- Updated Wave comparison of Cardinal and eVA to reflect Cardinal feedback (pp. 50-51)
- Updated alternative Wave with Cardinal weights (pp. 52-53)
- Procure-to-Pay Solution Benefits, and the consequences of not including universities and local governments (pp. 59-60)
- Added comparison of TEI for hybrid of eVA-plus-Cardinal to TEIs for eVA and Cardinal only (pp. 61)
- Updated TEI for eVA with corrected supplier fees (pp. 72)
- Evaluation and discussion of a hybrid option of eVA-plus-Cardinal, and why we now do not recommend this option (pp. 75-78)
- Updated recommendations in which re-affirm our recommendation that CoVA make eVA (with real-time integration into Cardinal and other ERPS) its standard procure-to-pay solution (pp. 80-81)

## Executive Summary: Forrester project objective

- › Forrester’s objective for this engagement as defined in the statement of work:
  - “In 2007, CoVA engaged Forrester to review eVA versus other procurement systems. At that time, Forrester’s review of eVA determined it appropriate for CoVA’s purposes at that time (with some recommended changes in process and funding to better support it), and recommended a re-evaluation once CoVA had selected a commonwealth-wide enterprise resource planning (ERP) application.
  - “CoVA wishes to engage Forrester to revisit that assessment, but focus its recommendations on **whether CoVA should integrate eVA with the new PeopleSoft ERP or whether CoVA should retire eVA and replace it with the PeopleSoft Procurement module.** Forrester will also examine and evaluate the recommended eProcurement solution in context of the previously recommended order of implementation regarding ERP administrative systems (e.g., HR, PR).
  - **“CoVA is looking for a binary recommendation on this question of retiring eVA or integrating into the new system.”**

# Executive Summary

**Forrester recommends that the Commonwealth of Virginia (CoVA) should standardize its procure-to-pay processes on an expansion of its existing eVA system.**

- Our revised Forrester Wave evaluation of feature, function, and integration still shows that eVA provides better functionality for procure-to-pay, and better integration with non-Cardinal ERPs and with suppliers, outweighing Cardinal procurement's better integration with Cardinal ERPs.
- Our Forrester TEI analysis of costs, risks, and flexibility benefits shows that expanding eVA's integration would have much lower initial investment than a Cardinal procurement roll-out, though Cardinal after full roll-out would have lower annual operating costs. On a net present value basis, eVA's total five year costs are about 10% lower than Cardinal's.
- Factoring in eVA's supplier fees and its operational savings to local governments, eVA would have significantly lower costs and lower risks.

Forrester Wave Scores	eVA	Cardinal
Current Offering	4.23	3.74
Integration	4.24	4.20
Vendor strategy	3.79	3.09
<b>Combined score</b>	<b>4.19</b>	<b>3.86</b>

Forrester TEI Total 5-Year Present Value	eVA	Cardinal
Current eVA equivalence costs	\$61.6 million	\$71.8 million
<b>Full CoVA procure to pay costs</b>	<b>\$65.8 million</b>	<b>\$76.6 million</b>
Supplier fees	(\$37.2) million	--
Total CoVA procure to pay costs net of supplier fees	\$28.6 million	\$76.6 million
Total, with added costs for local government without eVA	\$28.6 million	\$100.8 million

# Executive Summary (continued)

## Additional reasons for our recommendation to standardize on eVA.

- › The transition risks and disruption of changing from the current eVA procure-to-pay system to a Cardinal-based system are significant, and may well be understated in our analysis.
- › The costs of the eVA option could well be lower than we have estimated, because the existence of paid-for CoVA licenses to a PeopleSoft procurement and sourcing system as an alternative to CGI provides leverage to negotiate lower fees with CGI, as well as a back-up system to use should CGI choose not to renew its contract
- › The costs of the Cardinal option could well be higher than we have estimated, due to unexpected challenges and costs in rolling it out to other agencies and making adjustments and enhancements to meet their needs. For example, Cardinal as deployed at VDOT is optimized for direct material and construction project spending (which is very important for VDOT but less important at other agencies), but not optimized for catalog-based and contractor spending that is much more important at most other agencies.
- › eVA is currently delivering to the Commonwealth over \$40 million in documented annual savings due to its inclusion of spending from all CoVA agencies, universities, and many local governments. Any narrowing of the scope of coverage of those buyers through exclusion of universities or local governments would reduce the volume of spending with suppliers, and thus potentially reduce those savings by \$8-\$12 million per year.
- › The hybrid option that we initially proposed has turned out on further analysis to be significantly more costly and problematic than the eVA option, and is no longer recommended.

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# Forrester Project Team Introductions

- › Forrester participants in this project

# Forrester's approach

- › Forrester conducted 20+ interview sessions with CoVA stakeholders, including Agencies (5), Vendors (4), Local Governments (2), Colleges/Universities (2), and users of both eVA and Cardinal procurement systems (2).
- › We had multiple in-depth working sessions with the Cardinal and eVA teams.
- › We interviewed representatives from the states of Connecticut, Delaware, and Georgia on their deployments of PeopleSoft ERPs and their decisions on whether and where to use PeopleSoft procurement products.
- › We created a custom Forrester Wave model to compare the product functions, integration capabilities, and underlying software vendor strategies of the eVA and Cardinal options, which we reviewed individually and jointly with both the eVA and Cardinal teams.
- › We created custom Forrester Total Economic (TEI) models to calculate the costs, risks, and flexibility benefits of the eVA and Cardinal options, which we reviewed individually and jointly with both the eVA and Cardinal teams.
- › We have summarized our findings and recommendation in this second presentation to the Cabinet Working Group.

## Key learnings from our interviews

- The CoVA agencies we interviewed were generally satisfied with eVA from a procurement perspective, but cited issues in terms of the manual process of comparing PO data with invoice data in preparing payment vouchers.
  - QuickQuote was universally popular.
  - The Corrections Department, which gave eVA a grade of D in 2007, gave it a grade of B+ this time.
- VDOT is dissatisfied with eVA, and prefers its PeopleSoft procurement system.
- The local governments we interviewed were very positive about eVA.
- Most agencies reported that suppliers were satisfied with eVA and accepted its fees, and SWaM vendors were very positive. However, material vendors and other suppliers to VDOT felt they got little value from eVA and had to pay high supplier fees.

# Key learnings from our interviews (continued)

## CoVA today has one of the most ambitious state government procurement systems

- All of CoVA's spend on goods and services flows through eVA.
- All CoVA executive agencies, state universities, and public bodies use eVA for posting bids to suppliers and receiving responses, making purchases from state contracts, and delivering purchase orders to suppliers. In other states, only the executive agencies are included.
- All but four use eVA for requisition and purchase order creation.
- Over a six hundred local governments and private universities and colleges use eVA to post their bids to suppliers and receive responses, and to make purchases for items under state contract, and smaller (240+) but growing number are using it for requisitions and purchase order creation. No other state has this level of local participation.
- eVA in 2012 had over 13,000 individual users, captured almost 700,000 purchases and supported over \$6 billion in spending with 37,000 suppliers, delivering over \$30 million in documented savings to the Commonwealth. We believe no other state has this level of usage.

# Key learnings from our interviews (continued)

## CoVA now owns or uses a variety of procure-to-pay products

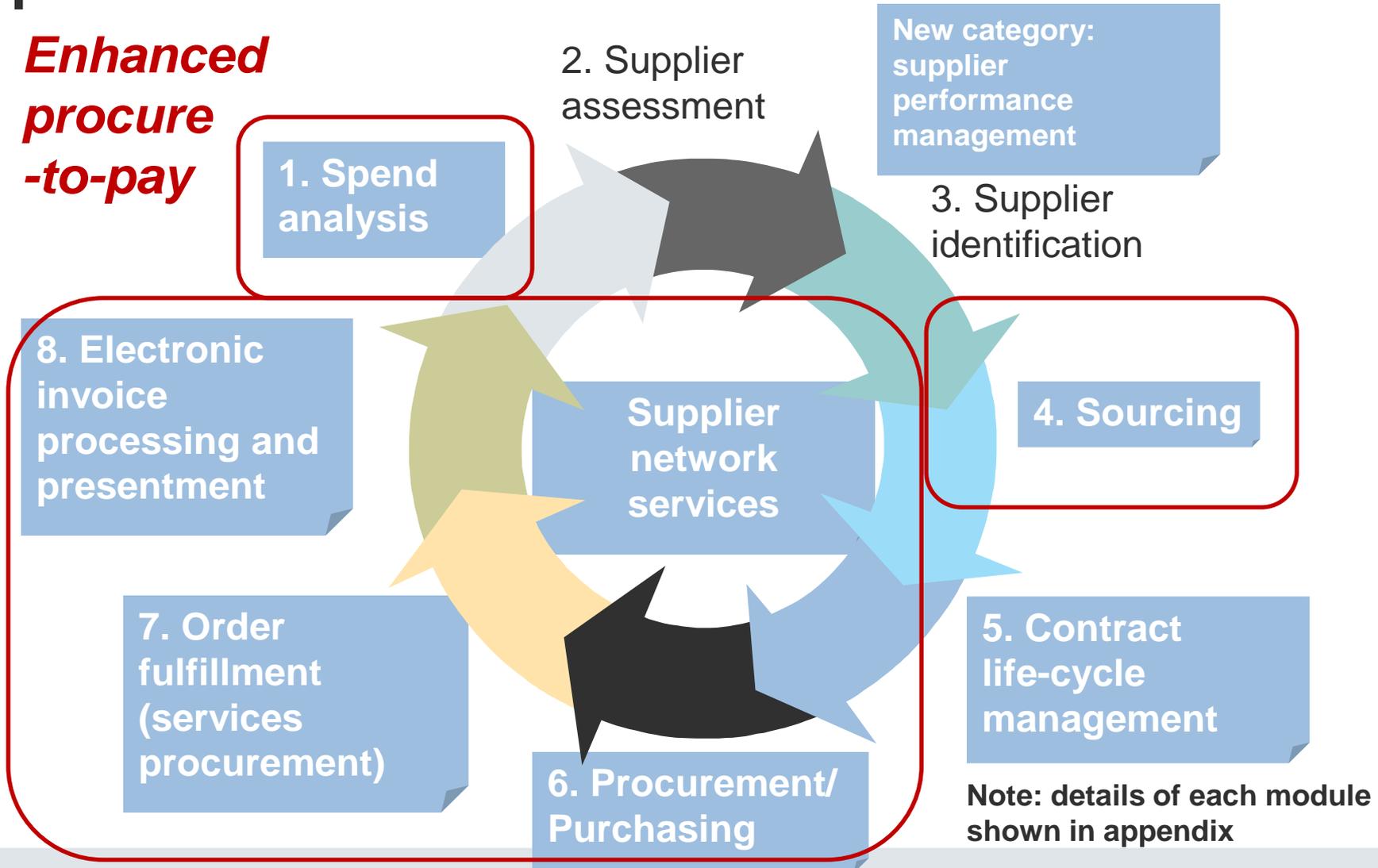
Procure-to-pay modules	PeopleSoft	eVA (Ariba & CGI)
Direct materials purchasing	YES, PeopleSoft Enterprise Purchasing	YES, CGI Advantage
Indirect goods purchasing	YES, PeopleSoft eProcurement	YES, Ariba Buyer
Services procurement	Not licensed	YES, Category management
eSourcing	YES, PeopleSoft Strategic Sourcing	YES, CGI Advantage
Spend analysis	Not licensed	YES, CGI Advantage
eInvoicing	Not licensed	YES, Ariba Invoice licensed but not yet deployed
Supplier network	PARTIAL, PeopleSoft Supplier Connectivity	YES, Ariba Network
Supplier portal	YES, Enterprise Portal	YES, Ariba Buyer

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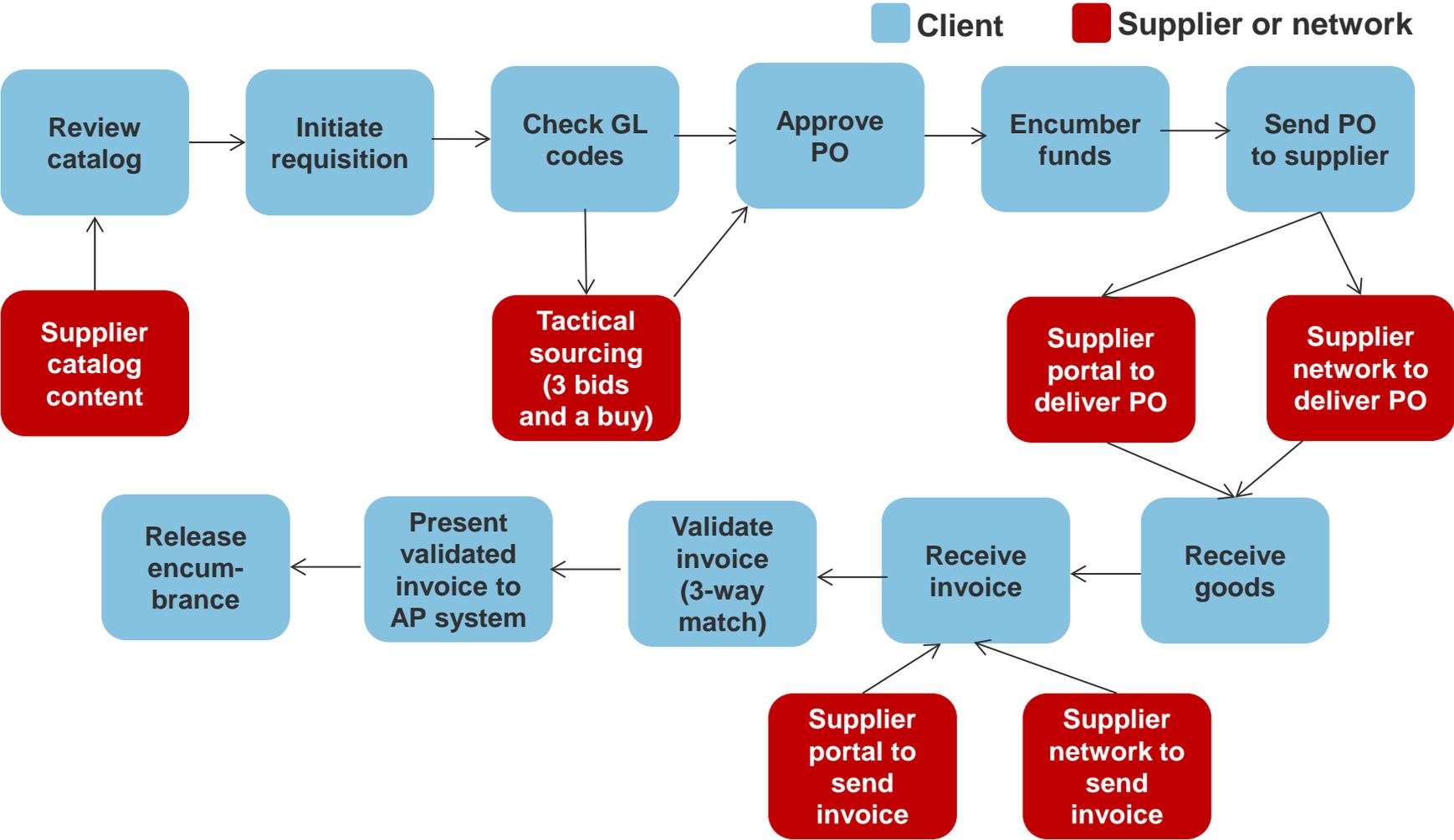
# The scope of CoVA's procure-to-pay process includes sourcing and spend analysis as well as procurement

## **Enhanced procure -to-pay**



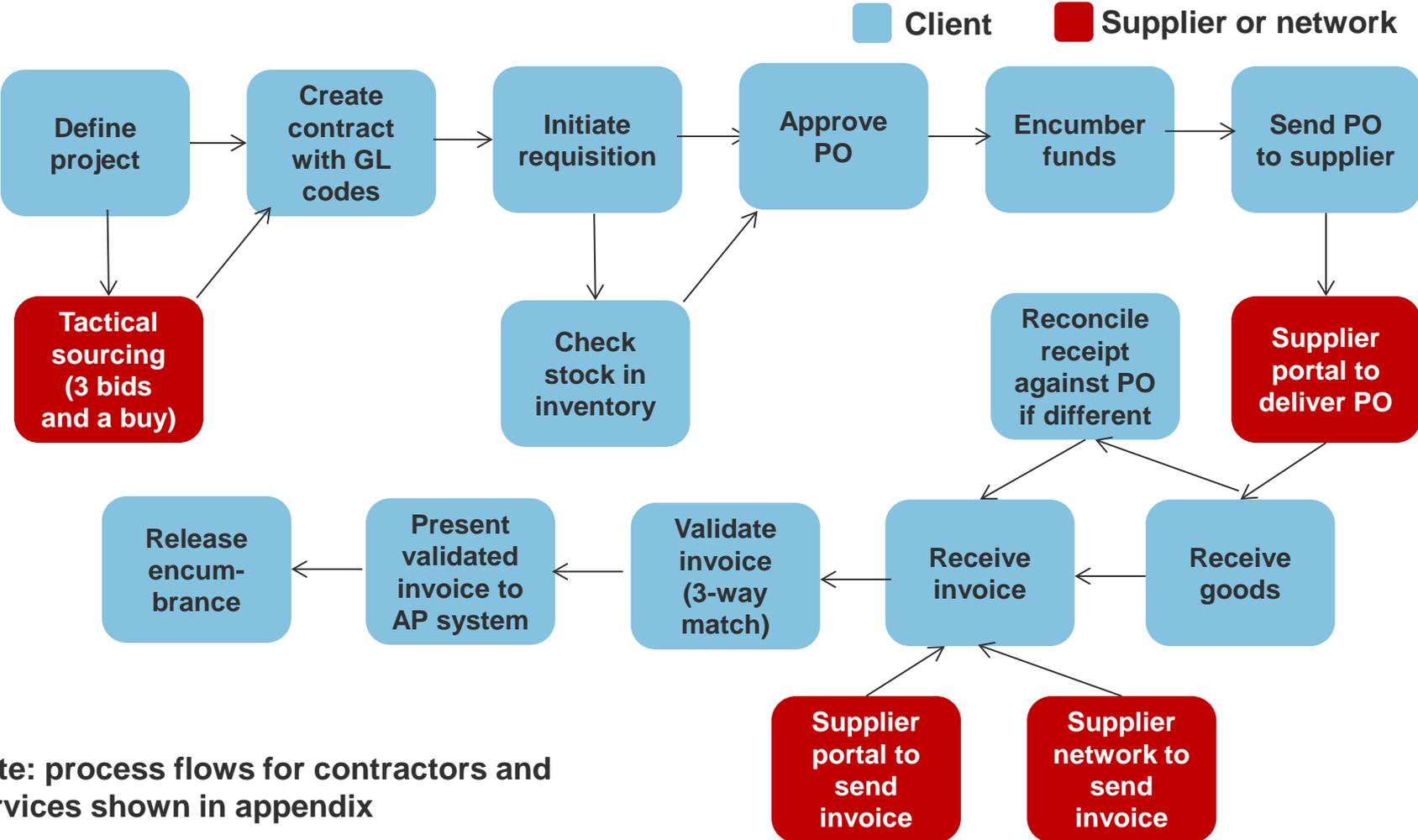
# The procure-to-pay process is complex, and differs by spend category

## Process for indirect goods



# The procure-to-pay process for direct materials is different from that for indirect goods

## Process for materials and direct goods



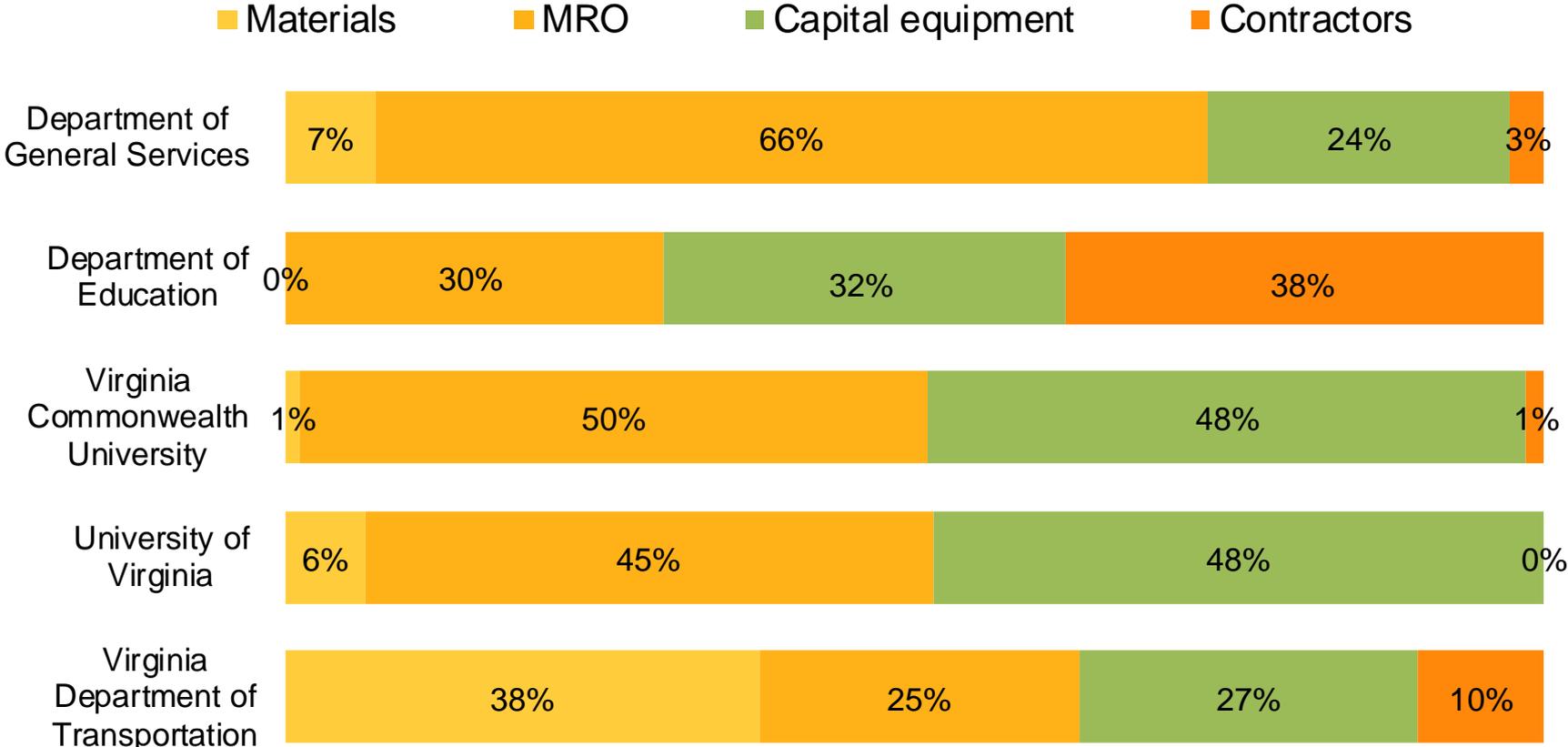
Note: process flows for contractors and services shown in appendix

# Different procure-to-pay processes create different requirements for procure-to-pay functions

Procure-to-pay requirements	MRO and indirect		Capital purchases	Contractors	Services
	Materials				
Purchased items can be catalogued	No	Yes	No	Yes	No
Suppliers generally have electronic order management systems and prefer to receive electronic POs	No	Yes	Mixed	Yes	No
Purchases are complex and involve back-and-forth between buyers and suppliers	No	No	Yes	Some	Yes
Receipt value can differ from PO value	Yes	No	Yes	Yes	Yes

# The differences in procure-to-pay processes are manifest in CoVA, where different agencies have very different spend patterns, and thus different requirements

Distribution of non-services CoVA agency spend by category, fiscal 2012



Source: eVA

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# In the Cardinal vs. eVA debate, there are “no bad guys”

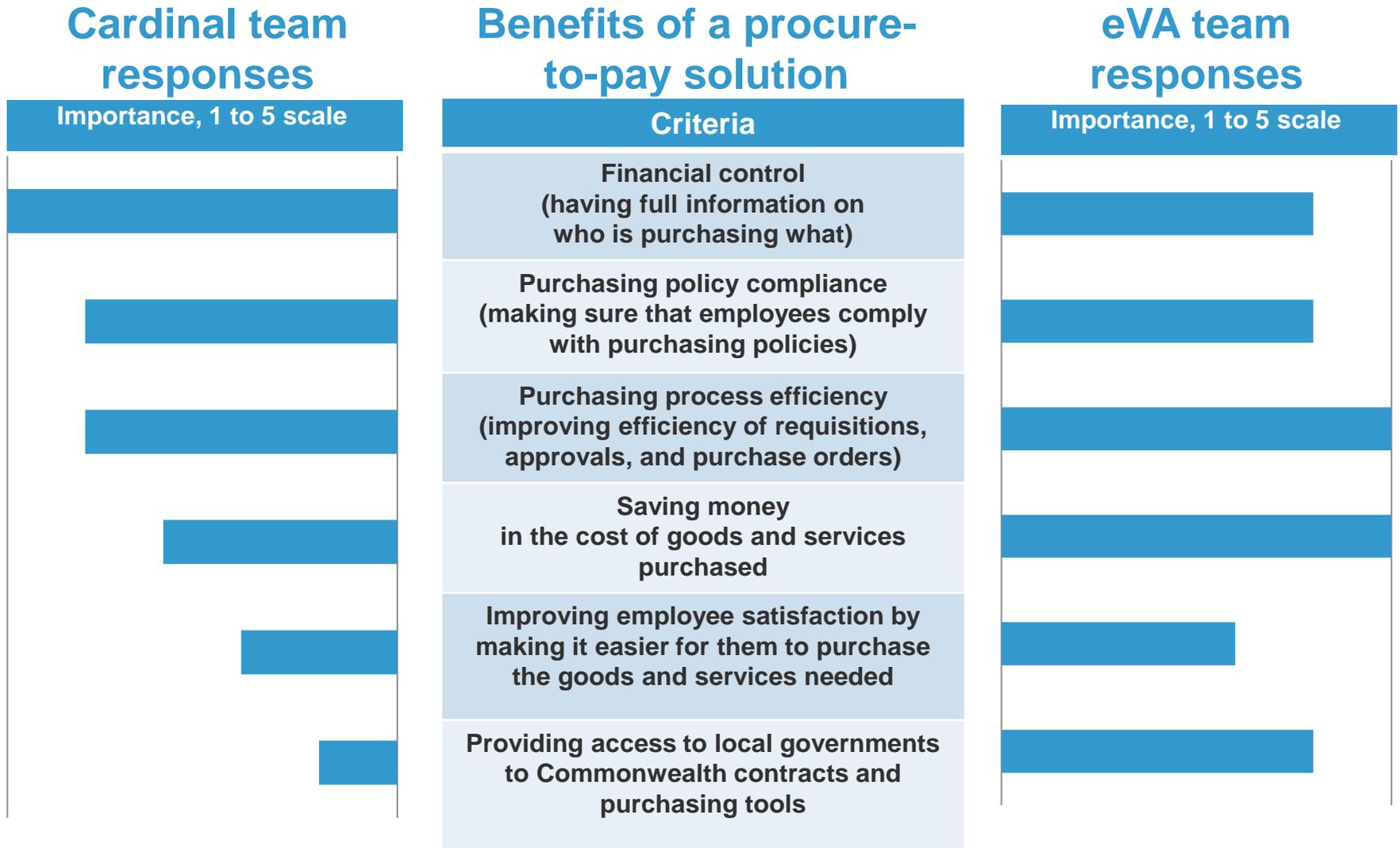
- › Instead, there are differences in perception



## The Cardinal/eVA debate comes down to different perspectives on three key issues

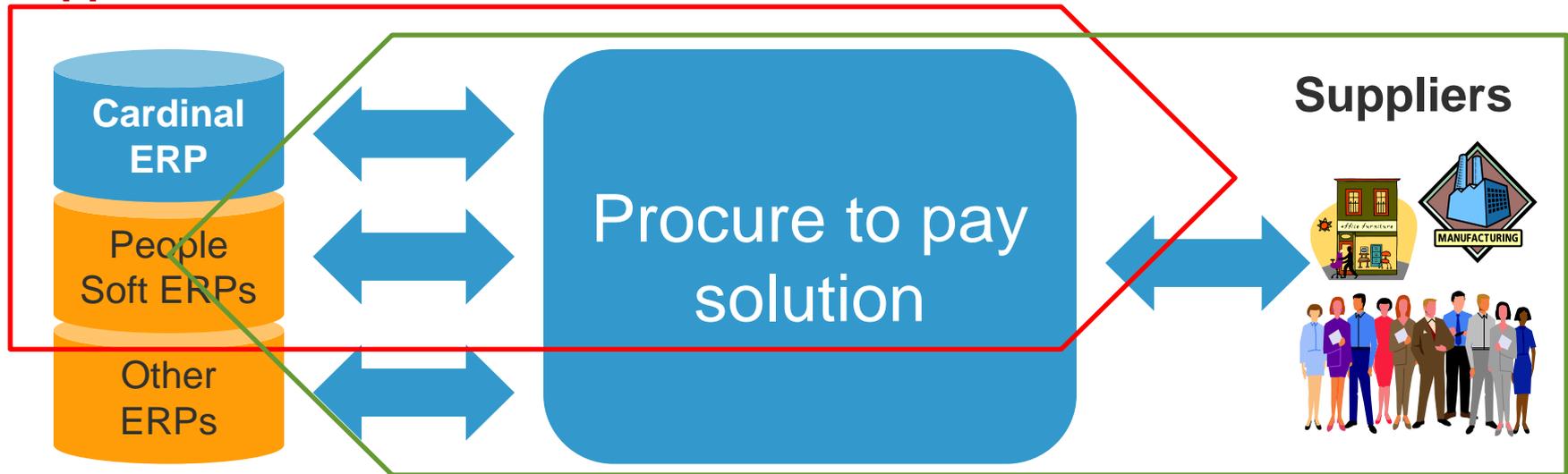
- › There are no right or wrong answers on these three key issues:
  1. The objectives of a procure-to-pay system – financial control, vs. broader set of objectives
  2. The architecture of a procure-to-pay system – single ERP suite vs. hybrid
  3. The ownership model for a procure-to-pay system – ownership of licensed software, vs. lease of software as a service
- › But we can provide some perspectives on how other states and private businesses are answering these issues

# 1. The eVA and Cardinal teams have divergent perspectives on the benefits of a procure-to-pay solution



# We believe eVA's approach to procure-to-pay is broader and more inclusive than Cardinal's

**Cardinal's approach to procure-to-pay starts with the Cardinal ERP and focuses on integration between those systems, with limited concern about suppliers or non-Cardinal ERPs**



**eVA approach to procure-to-pay started with the suppliers, with a focus on bringing them on board, aggregating spend to create bigger discounts, and supporting SWaM, with a recent push to integrate into CoVA ERPs**

**In our experience, large businesses and some states take eVA's approach; small business and some states take Cardinal's**

## 2. The two teams have divergent perspectives on application architecture

### Cardinal team perspective

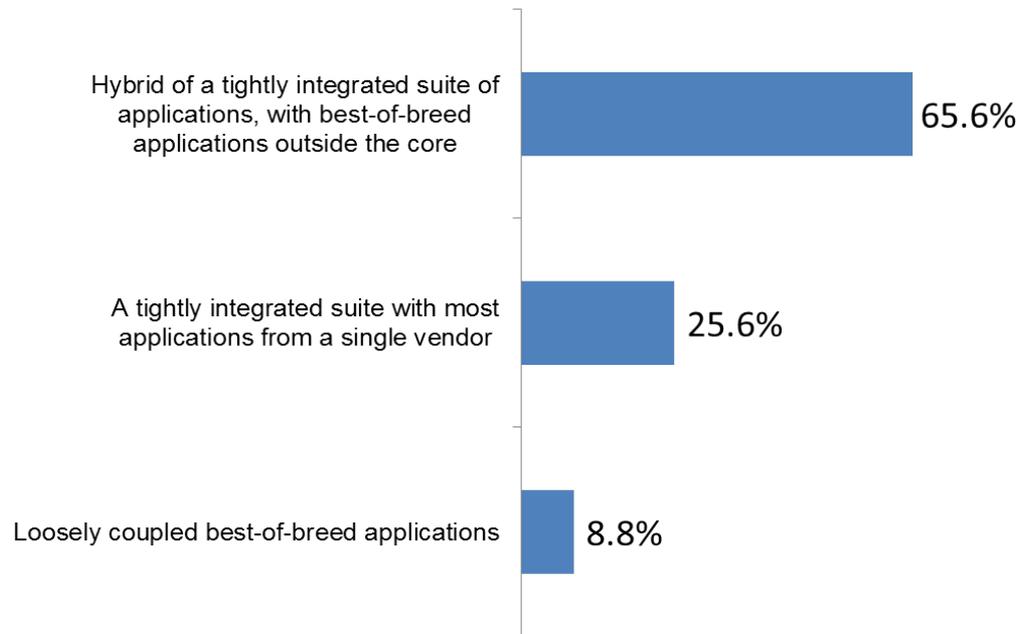
Wall-to-wall applications from the same ERP vendor (PeopleSoft) provide full integration between apps, a common data model, a common user interface, and lower code maintenance costs

### eVA team perspective

Best-of-breed applications around a core financial management system with a service-oriented architecture and a Software-as-a-Service delivery model provide best applications, adequate integration between apps, a browser-based user experience, and lower operating costs

# eVA's architecture is more in line with most firms, who now use a hybrid application architecture of a core ERP suite with best-of-breed apps elsewhere

“What is your preference for your business application architecture?”



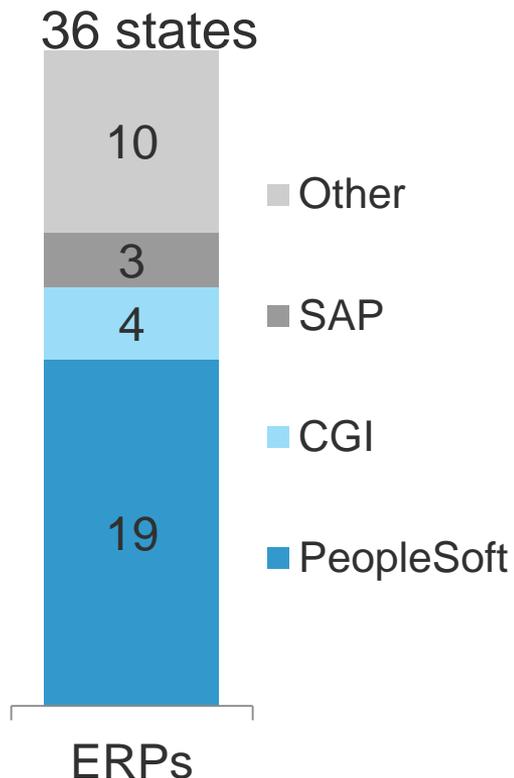
Base: 125 respondents who use SAP applications

Source: May 2013 Global SAP Applications Online Survey conducted by Forrester Research

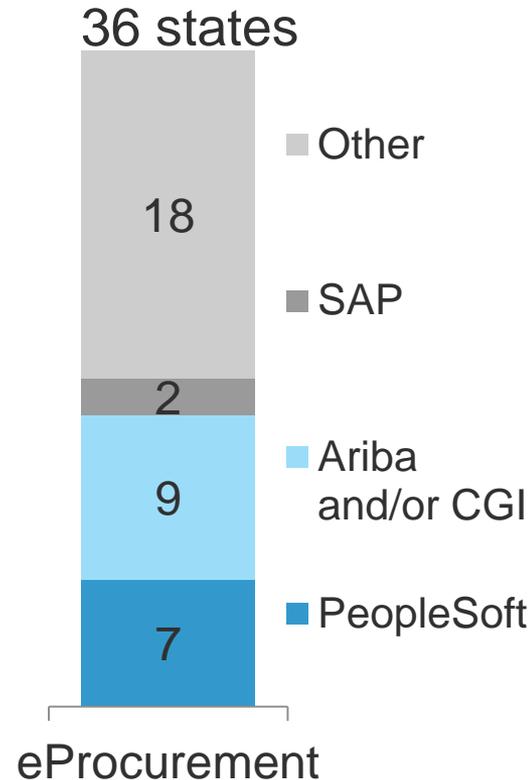
# eVA's architecture is in line with what most states are doing

While many states use PeopleSoft as their ERP, most use other vendors' eProcurement systems

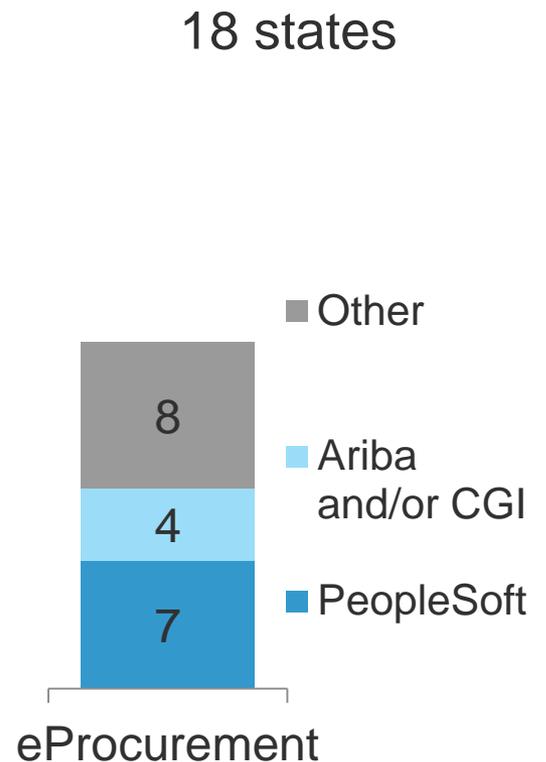
## Distribution of state ERPs by brand



## Distribution of state eProcurement by brand



## Distribution of state PeopleSoft ERPs by eProcurement brand



Source: Forrester Research, Inc., based on data from the National Associations of State Purchasing Officers and the vendors

# What other states with PeopleSoft ERP are doing with eProcurement

	ERP	eProcurement	eSourcing	Supplier network & catalog management
Connecticut	PeopleSoft	PeopleSoft	Home-built	None
Delaware	PeopleSoft	Up for bid	Up for bid	Up for bid
Georgia	PeopleSoft	PeopleSoft	PeopleSoft	SciQuest
California	PeopleSoft	BidSync (partial)	BidSync	None
Ohio	PeopleSoft	SciQuest	PeopleSoft	SciQuest
Texas	PeopleSoft	Periscope	Periscope	None
Tennessee	PeopleSoft	PeopleSoft	PeopleSoft	Unknown
New Mexico	PeopleSoft	PeopleSoft	Unknown	Unknown
Kansas	PeopleSoft	PeopleSoft	Unknown	Unknown
Florida	PeopleSoft and others	Ariba	Ariba	Ariba
Minnesota	PeopleSoft	PeopleSoft	Unknown	Unknown
Indiana	PeopleSoft	PeopleSoft	Unknown	Unknown
Hawaii	PeopleSoft	Perfect Commerce	Unknown	Perfect Commerce
New York	PeopleSoft	Up for bid	Up for bid	Up for bid
Wisconsin	PeopleSoft	CGI Advantage	CGI	Unknown

### 3. The two teams have divergent perspectives on software ownership

#### Cardinal team perspective

Owning core software provides control over these systems and potential to manage costs lower

#### eVA team perspective

Leasing software reduces upfront investment costs, provides access to best-of-breed functions, and the ability to switch to alternative providers

# Firms are using SaaS to replace procure-to-pay or HCM apps more than to replace ERP apps

“What are your firms plans to complement or replace the following applications with software-as-a-service (SaaS)?”



Source: Forrsights Software Survey, Q4 2011, and Q4 2012

N = 181 to 523 US firms,  
depending on the application

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# Implementing a procure-to-pay system in CoVA faces challenges of integrating to many ERPs at many agencies

- CoVA has 206 executive agencies, state universities and colleges, and other public bodies currently using eVA, or 178 excluding 28 agencies that have their finances managed by other agencies
- CoVA has 46 different ERP instances, counting all the agencies currently using CARS or Cardinal as one instance
- eVA is used as the front-end requisition system by 202 agencies, but by end of 2013 will have real-time integration with 8 ERPs used by 31 agencies, and batch-file interfaces with 21 ERPs used by 37 agencies
- Cardinal procurement is used as the front-end requisition system by VDOT, with real-time integration into Cardinal ERP

# Procure-to-pay systems do not stand-alone – they have to work with finance systems

Procure-to-pay system and financial management system have several points of integration

## Front-end procure-to-pay process

### Requisition/Purchase Order

- Vendor name, vendor information, and tax identification number
- Product description and NIGP code
- GL account code
- Purchase amount
- Name and agency of buyer
- Date and time of purchase
- Encumbrance amount
- PO number

For an agency like VDOT, these items will be more complex and changing than for most other agencies

## Back-end procure-to-pay process

### Receipt

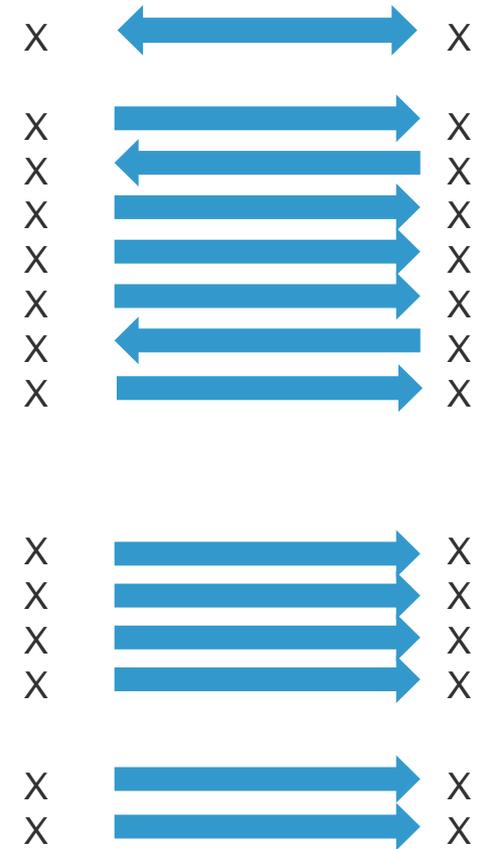
- Vendor name and information
- Product description
- Purchase amount
- Date and time of receipt

### Invoice to Payment voucher

- Purchase order information
- Receipt information

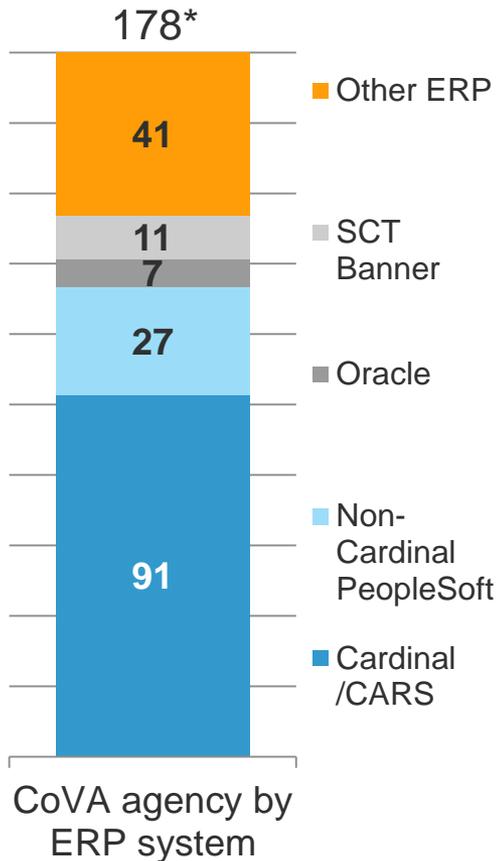
## Procure-to-pay system

## Finance system

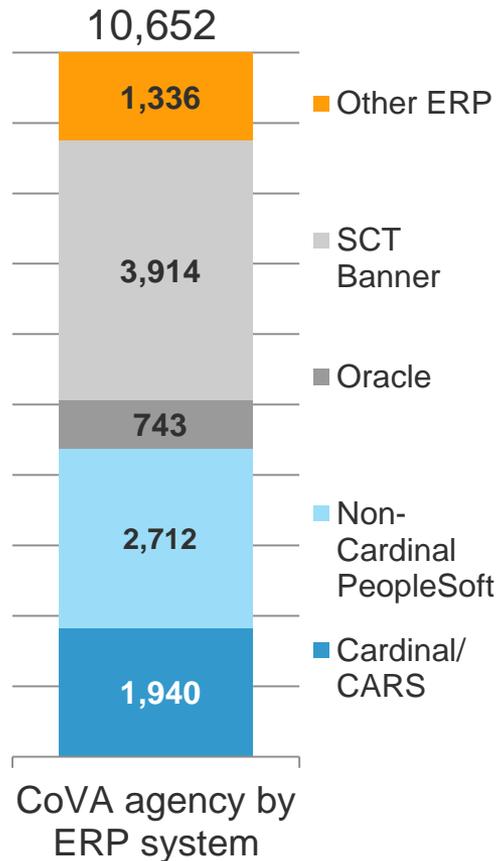


# While CoVA currently has a wide range of ERP systems in use, most eVA users and transactions come from agencies using non-Cardinal/CARS ERP systems

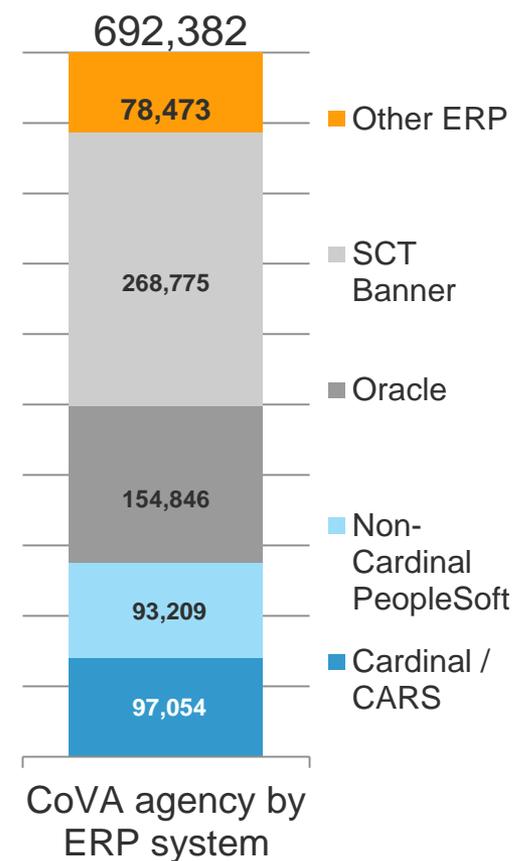
## CoVA Agencies by ERP (number)



## CoVA Agencies by ERP (eVA users)



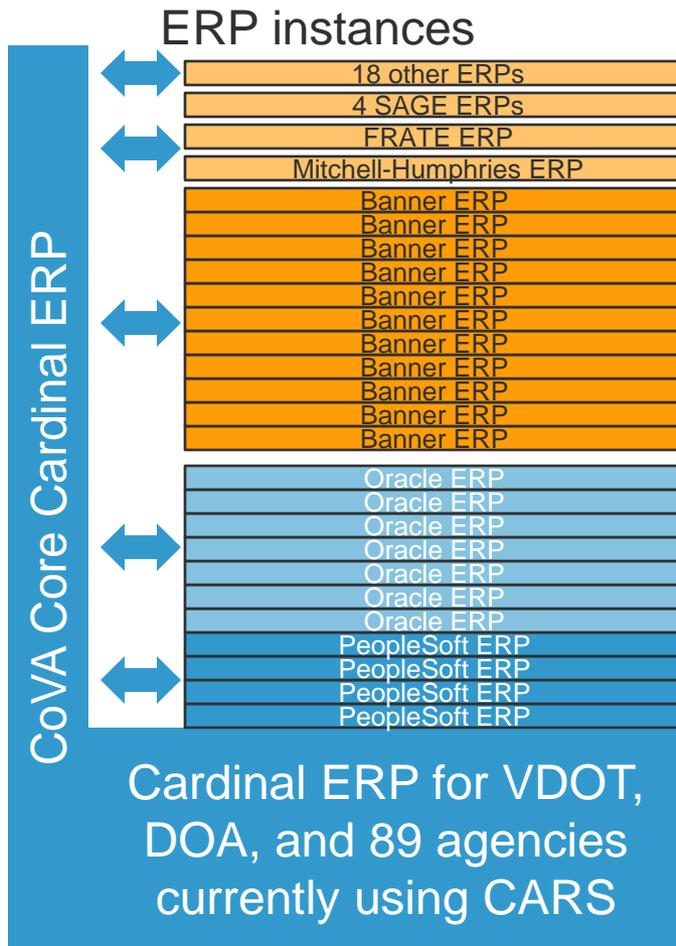
## CoVA agencies by ERP (2012 transactions)



\* Not counting 28 agencies with finances managed by other agencies

# The CoVA Procure-to-Pay landscape of ERP instances, and process change

206 CoVA agencies currently use 49 separate instances of an ERP

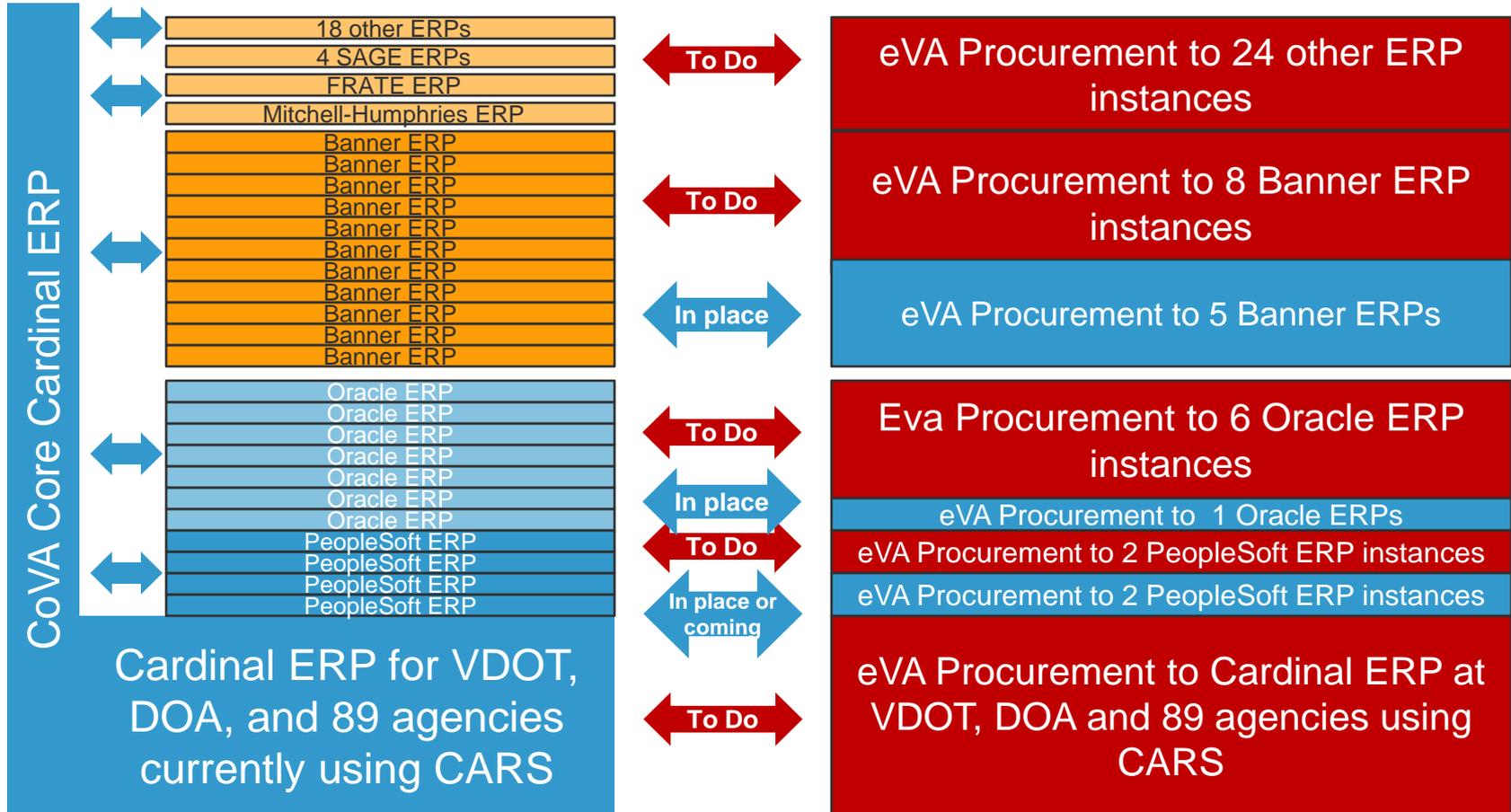


eVA used for requisitions at all but 4 agencies

<p>42: 15 agencies sharing a Mitchell Humphries instance, 4 agencies sharing a FRATE instance, 4 agencies using 4 SAGE instances, and 19 other agencies using 18 other ERPs</p> <p>Labor &amp; Industry exempted from using eVA for requisitioning</p>
<p>11 CoVA universities, each using their own instance of Banner</p> <p>2 universities exempted from using eVA for requisitioning</p>
<p>7 agencies using their own instance of Oracle</p>
<p>27 agencies using or sharing 4 single-instances of PeopleSoft</p>
<p>118: VDOT, DOA and 89 agencies using CARS, plus 28 agencies with finance managed by another agency using CARS</p> <p>VDOT exempted from using eVA for requisitioning</p>

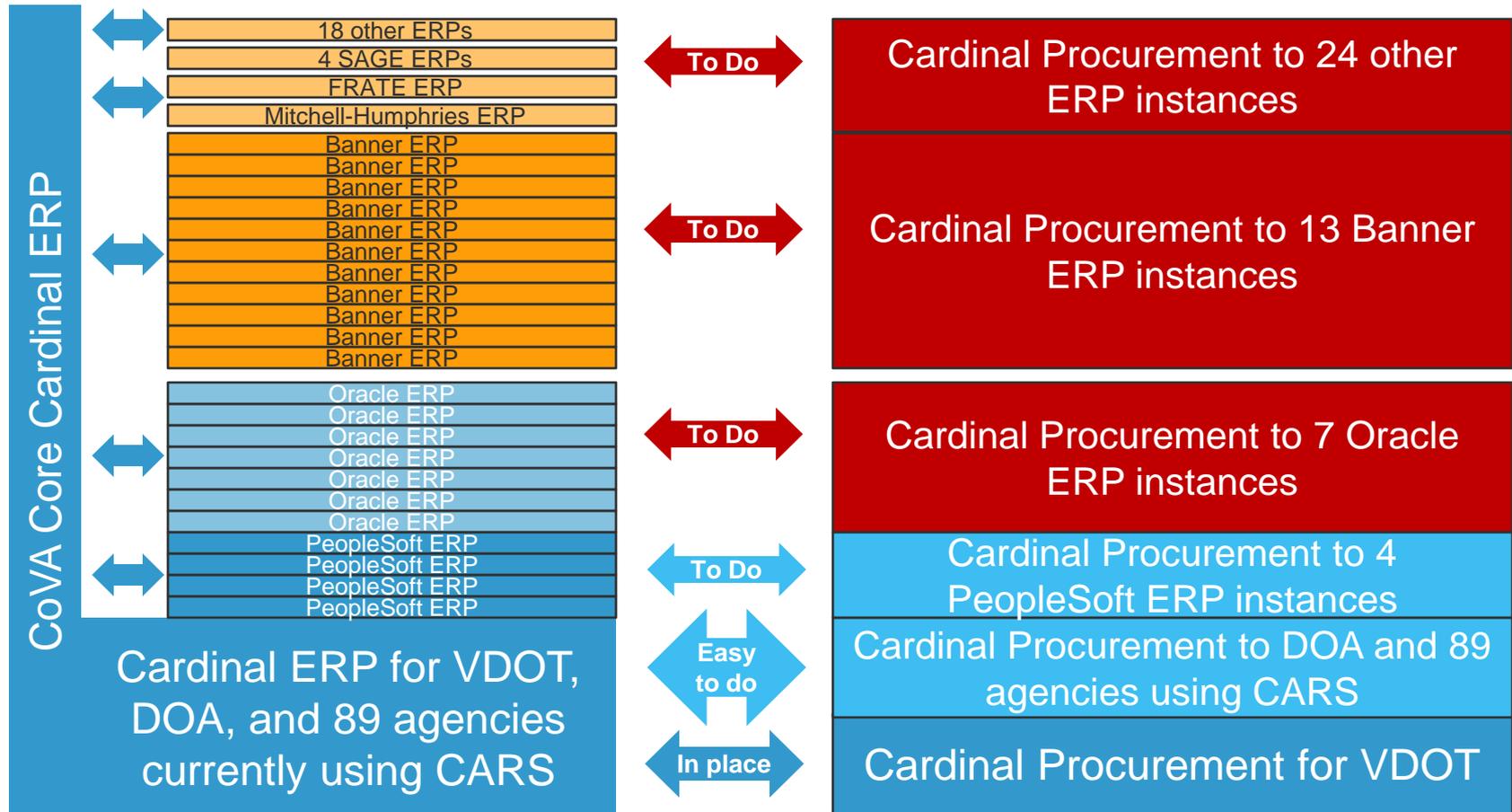
# eVA's Procurement to CoVA ERP integration challenge

eVA has 8 real-time ERP integrations in place, and would need to do 41 others to cover all agencies



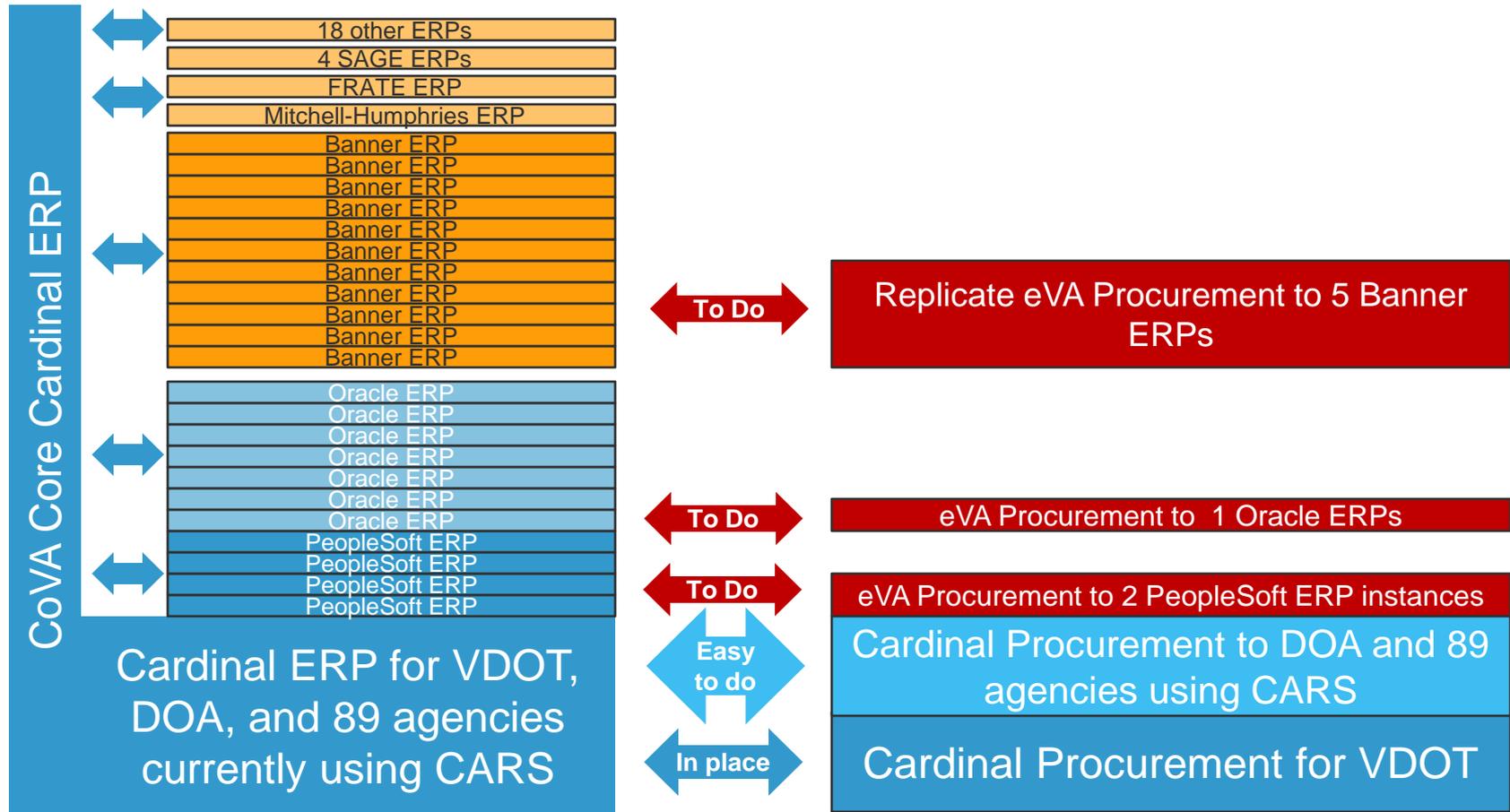
# Cardinal Procurement to CoVA ERP integration challenge

Cardinal Procurement has real-time integration to Cardinal ERP at VDOT, but would need to integrate to 44 other non-PeopleSoft ERPs and 4 non-Cardinal PeopleSoft ERP instances



# The Cardinal team asked us to assess the cost of making Cardinal equivalent to eVA's current level of deployment

To be equivalent to eVA, Cardinal would need to do 8 real-time eVA ERP integrations in place, and implement process changes at all other agencies



# Implementing a procure-to-pay process requires significant changes in both front-end and back-end processes and operations

## > Changes for front-end requisition-to-purchase-order process

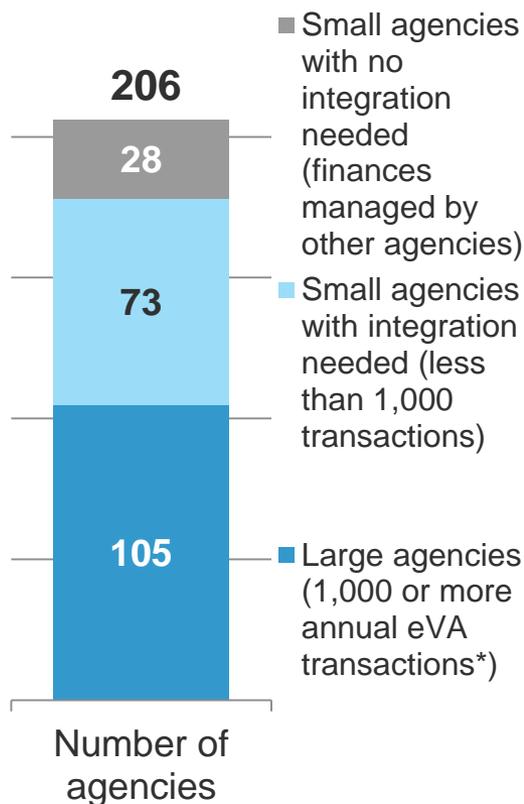
- Map and implement requisition approval hierarchies and routing processes for approving requisitions
- Identify product or services categories specific to an agency
- Design procurement process flow for the agency
- Design and implement process for change orders and order reversals
- Set up catalog to be used by employees
- Identify unique requirements of the agency, such as specialized reports

## > Changes for back-end purchase-order-to-payment-voucher

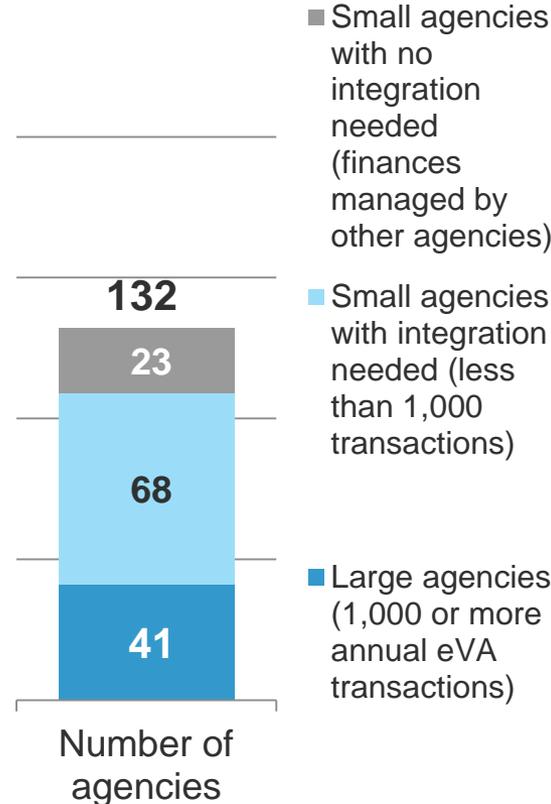
- Implement process for capturing and entering receipt information
- Design and implement process for making sure correct PO data is entered in payment voucher, and dealing with errors and rejects
- Identify unique requirements of the agency, such as specialized reports

# In addition to integration, eVA would need to do back-end process changes for linking to financial system, and Cardinal would need to both front-end and back-end process changes

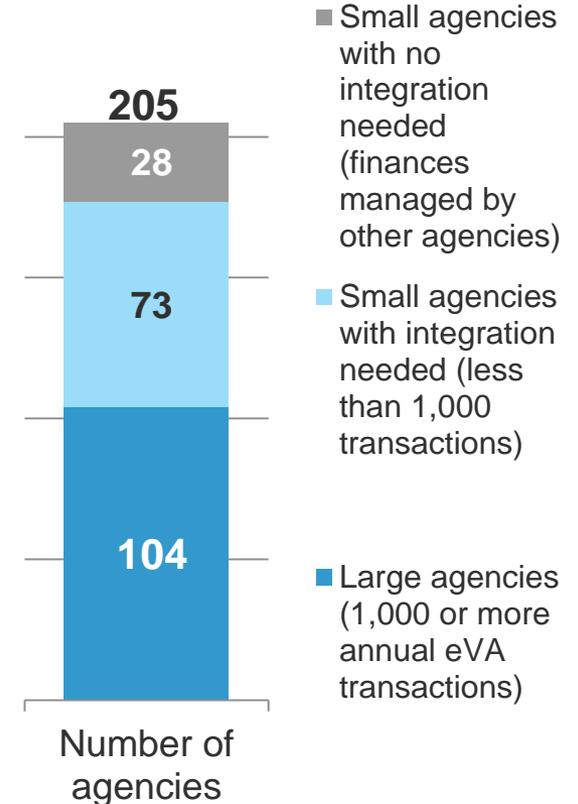
## CoVa Agencies for procure-to-pay implementation



## CoVa Agencies needing eVA back-end process change



## CoVA Agencies needing Cardinal front- and back-end changes



# eVA's funding model

> eVA receives funding today from two sources:

1. About a third comes from fees charged to CoVA agencies on the basis of spend through the system
2. About two-thirds come from suppliers, based on a fee that is currently 1.2% of the value of the purchase order, with a cap of \$1,200 per transaction

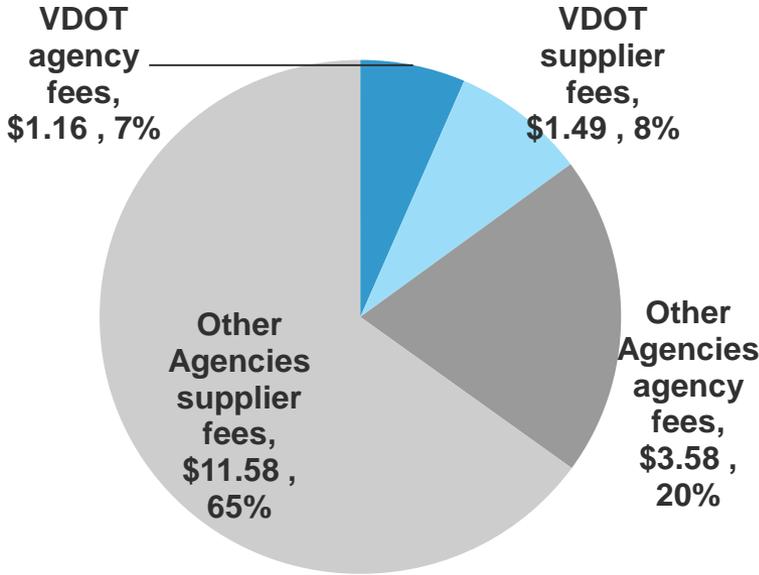
> While eVA's goal is to match fee revenue to eVA's cost (including CGI contract), on a year-by-year basis fee revenue exceeds combined eVA and CGI costs



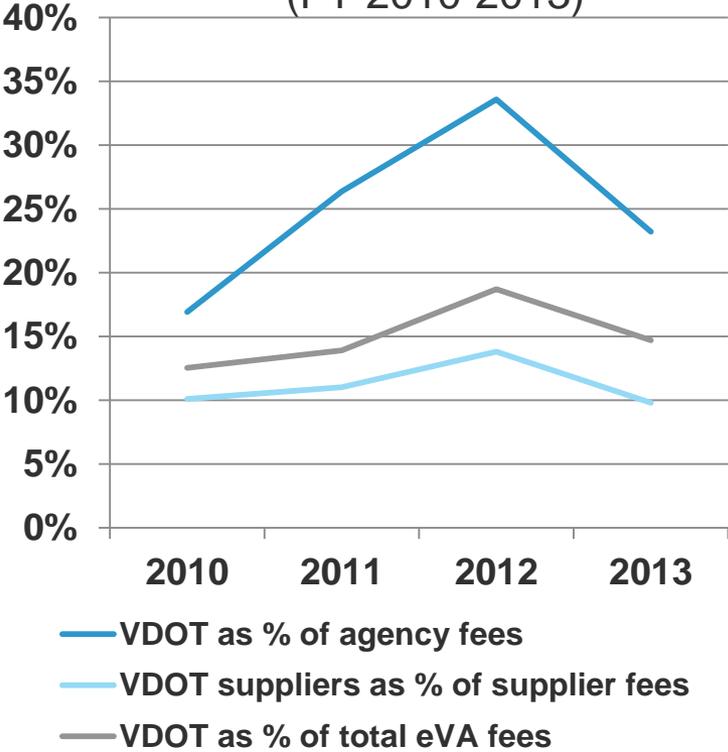
Source: eVA

# VDOT and its suppliers pay about 15% of total eVA fees, with VDOT paying directly 20% to 33% of eVA agency fees

Distribution of eVA fees by source  
(\$ millions, average FY 2010-2013)



VDOT Share of eVA Agency, Supplier and Total Fees (FY 2010-2013)



Source: eVA

# VDOT is using and getting value from eVA

<b>FISCAL YEAR 2013 – VDOT Value from eVA</b>	<b>Transactions</b>
a. Cardinal Orders <i>only copied</i> into eVA for Reporting	1,796
b. Cardinal Orders to Ariba for <i>electronic delivery via Ariba Network</i>	29,851
c. VDOT Orders <i>created in eVA</i>	6,881
Purchase Orders (including all change orders and cancellations)	36,732
Quick Quote Requests (QQ)	443
QQ Vendor Notifications	461,630
QQ Vendor Responses, Evaluation & Award	1,485
VBO Solicitation Postings (IFB, RFP, etc.)	789
VBO Vendor Notifications	2,892,603
<b>Total VDOT eVA Transactions</b>	<b>3,393,682</b>

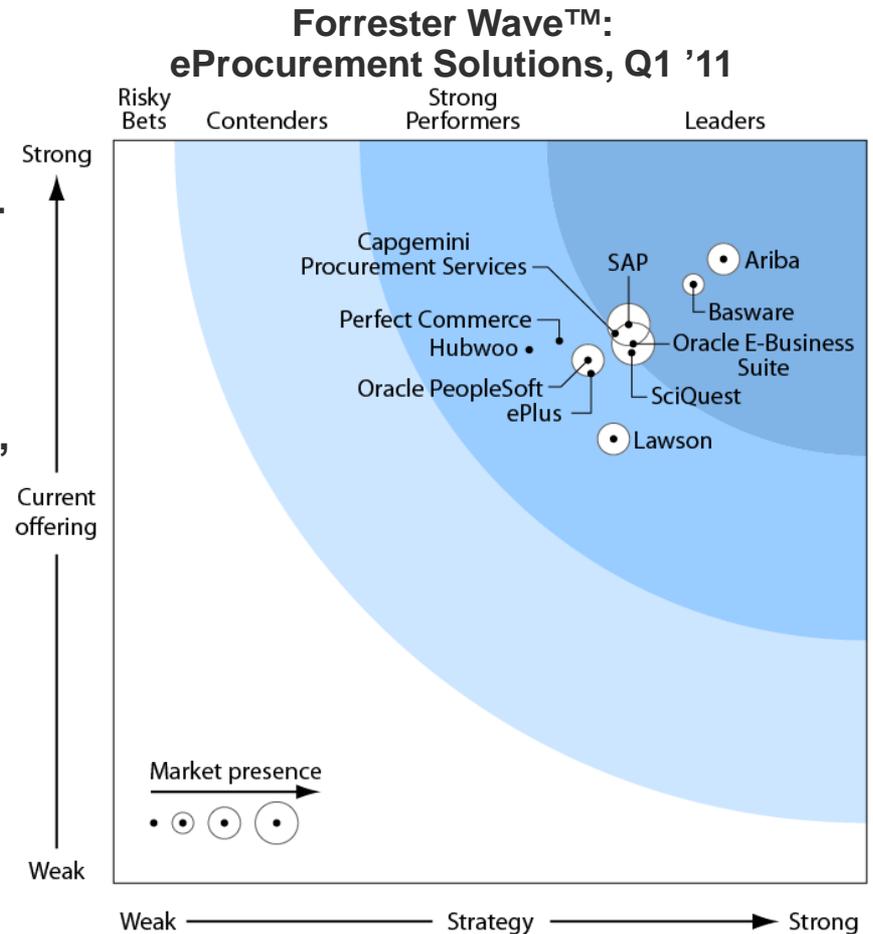
Source: eVA

# Agenda

- › *Executive Summary*
- › *Forrester project team members, and interview learnings*
- › *Defining the procure-to-pay process*
- › *The CoVA debate on process-to-pay – eVA vs. Cardinal*
- › *Key parameters for implementing a procure-to-pay system at CoVA*
- › ***Evaluation of eVA vs. Cardinal/PeopleSoft procure-to-pay features, functions and integration***
- › *Evaluation of the costs, risks, and benefits of fully integrated and deployed eVA vs. Cardinal/PeopleSoft procure-to-pay systems*
- › *Recommendations*

# Forrester Wave™ methodology

- › Forrester's Wave™ is a tool for helping clients choose the right technology
- › It rates up to a dozen vendors against 50-70 criteria for current offering, 10-12 criteria for strategy, and 6-10 criteria for market presence
- › Behind the graphic is an Excel workbook, with Forrester's rating of each vendor's capability against the criteria, with each criteria given a customizable weight
- › For CoVA, we created a custom Wave, leveraging existing Forrester Waves plus in-depth interviews with the Cardinal and eVA teams
- › We also made "Integration" the horizontal dimension, and replaced "market presence" bubbles with "strategy" ratings



March 2011 "The Forrester Wave™: eProcurement Solutions, Q1 2011"

# Summary of the Excel workbook for the Forrester Wave™: eProcurement Solutions, Q1 '11

	Forrester's Weighting	Ariba	Basware	Capgemini Procurement Services	ePlus	Hubwoo	Lawson	Oracle E-Business Suite	Oracle PeopleSoft	Perfect Commerce	SAP	SciQuest
<b>CURRENT OFFERING</b>	50%	4.20	4.03	3.70	3.43	3.59	2.99	3.63	3.52	3.65	3.76	3.57
Goods purchasing	20%	4.38	4.28	3.97	4.09	3.79	3.74	4.27	4.15	4.09	3.90	3.88
Category support	15%	3.74	3.49	2.86	2.90	3.44	2.65	2.95	2.86	2.79	3.65	3.09
Settlement	3%	5.00	4.65	4.35	4.00	4.35	3.70	4.35	4.35	4.35	3.70	3.70
Reporting	12%	3.50	3.50	4.00	3.00	3.00	3.00	5.00	4.50	3.00	4.00	3.50
Process configuration	12%	3.70	4.40	3.20	3.40	3.30	3.30	3.90	3.90	3.70	4.00	3.60
Supplier connectivity and enablement	22%	4.82	3.81	3.70	3.45	3.52	2.08	2.44	2.53	3.67	3.18	3.57
Technology	8%	4.42	4.43	3.83	3.74	3.83	3.15	3.98	3.84	4.29	4.00	3.55
Globalization	8%	4.19	4.58	4.49	2.89	4.40	3.40	3.48	3.30	4.09	4.30	3.70
<b>STRATEGY</b>	50%	4.05	3.85	3.33	3.17	2.76	3.32	3.45	3.15	2.96	3.42	3.44
Product strategy	60%	4.45	4.00	3.50	2.95	2.85	3.45	3.45	2.95	2.85	3.65	3.15
Corporate strategy	25%	4.00	4.00	2.50	3.50	3.00	3.50	2.50	2.50	3.50	2.50	5.00
Financial resources to pursue strategy	15%	2.50	3.00	4.00	3.50	2.00	2.50	5.00	5.00	2.50	4.00	2.00
<b>MARKET PRESENCE</b>	0%	3.25	2.20	1.95	1.65	1.60	3.30	5.00	3.60	1.30	5.00	1.90
Installed base	35%	3.00	1.00	2.00	2.00	1.00	3.00	5.00	3.00	1.00	5.00	1.00
Market share of new deals	35%	2.00	1.00	1.00	1.00	1.00	3.00	5.00	3.00	1.00	5.00	1.00
Employees	30%	5.00	5.00	3.00	2.00	3.00	4.00	5.00	5.00	2.00	5.00	4.00

All scores are based on a scale of 0 (weak) to 5 (strong).

Source: March 2011 "The Forrester Wave™: eProcurement Solutions, Q1 2011"

# Forrester Wave™ Procure-to-Pay for CoVA: Forrester's Top-Level Criteria and Weights

<b>CURRENT OFFERING</b>	<b>50%</b>	
Materials purchasing		10%
Indirect goods purchasing		15%
Contingent workers and contractors		3%
Project-based/SOW services		2%
Invoice capture and conversion		5%
Invoice validation		5%
Invoice management		5%
End-to-end visibility into procure-to-pay transactions		10%
Process configuration		3%
Mobility		2%
Sourcing		10%
Supplier catalog and punch-out support		10%
Analytics and reporting		10%
Support for CoVA's Procurement Priorities		10%

<b>INTEGRATION</b>	<b>40%</b>	
CoVA systems integration		70%
Supplier connectivity and enablement		30%

<b>STRATEGY</b>	<b>10%</b>	
Vendor's product strategy		70%
Vendor's corporate strategy		30%

Source: Forrester Research, Custom Forrester Wave for Procure-to-Pay Options for CoVA

# Forrester Wave™ Procure-to-Pay for CoVA: Second-Level Criteria and Weights for Current Offering

<b>CURRENT OFFERING</b>	<b>50%</b>	
<b>Materials purchasing</b>	<b>10%</b>	
<b>Indirect goods purchasing</b>	<b>15%</b>	
Requisitioning		40%
PO processing		30%
Change management and status tracking		30%
<b>Contingent workers and contractors</b>	<b>3%</b>	
<b>Project-based/SOW services</b>	<b>2%</b>	
<b>Invoice capture and conversion</b>	<b>5%</b>	
<b>Invoice validation</b>	<b>5%</b>	
<b>Invoice management</b>	<b>5%</b>	
<b>End-to-end visibility into procure-to-pay transactions</b>	<b>10%</b>	
<b>Process configuration</b>	<b>3%</b>	
<b>Mobility</b>	<b>2%</b>	
<b>Sourcing</b>	<b>10%</b>	
Public bid posting and vendor notification		20%
Tactical or spot-buy sourcing		20%
Solicitation of SWaM vendors		20%
Strategic sourcing		40%
<b>Supplier catalog and punch-out support</b>	<b>10%</b>	
<b>Analytics and reporting</b>	<b>10%</b>	
Spend analytics and visibility		40%
Procurement reporting		20%
Services procurement reporting		20%
Invoice processing reporting		20%
<b>Support for CoVA's Procurement Priorities</b>	<b>10%</b>	
Small business/Women-owned/Minority-owned (SWaM) support		60%
Local government access to state contracts and procurement tools		40%

Source: Forrester Research, Custom Forrester Wave for Procure-to-Pay Options for CoVA

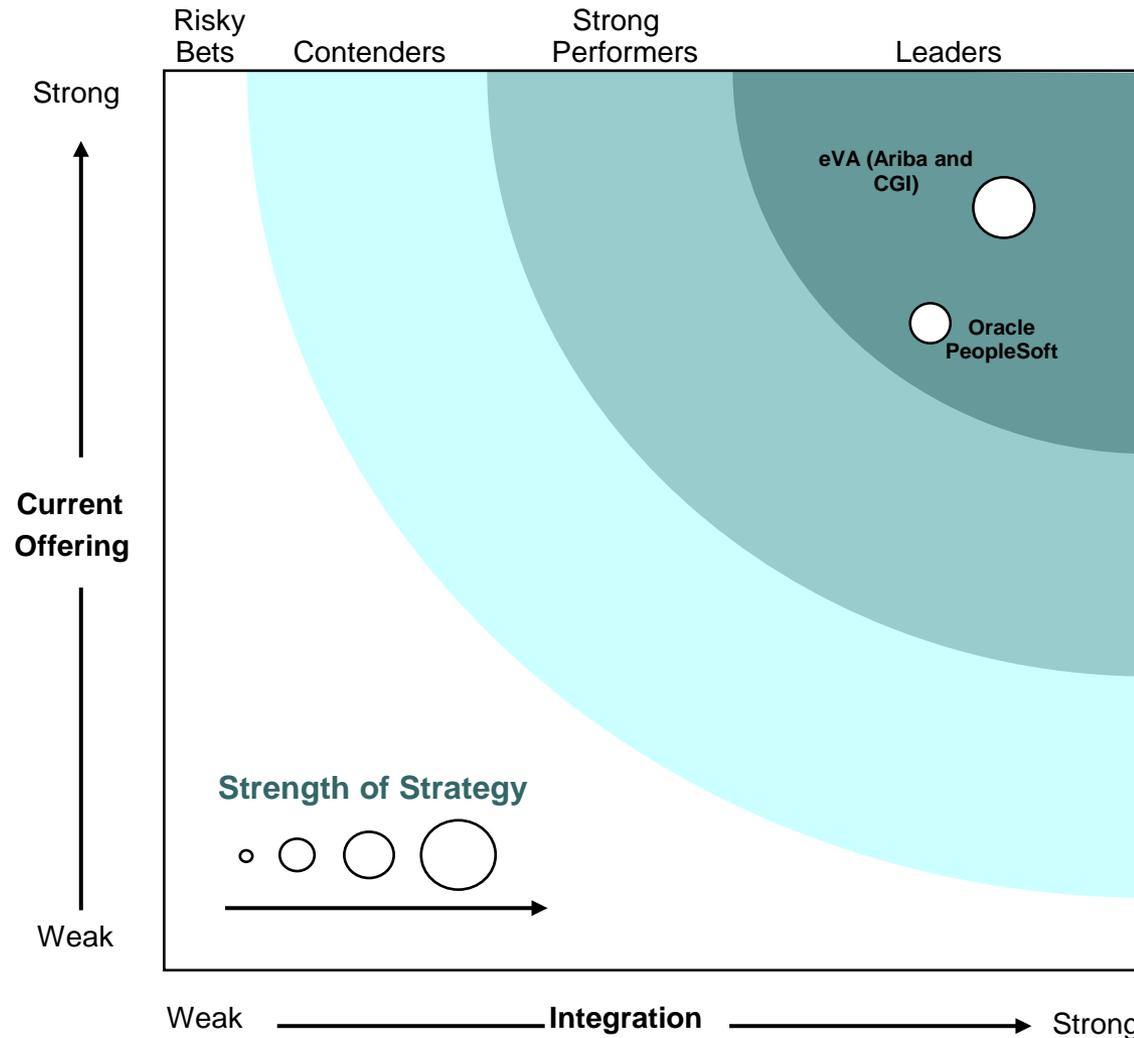
# Forrester Wave™ Procure-to-Pay for CoVA: Second-Level Criteria and Weights for Integration and Strategy

<b>INTEGRATION</b>	<b>40%</b>	
<b>CoVA systems integration</b>	<b>70%</b>	
PeopleSoft ERP integration		50%
Other ERP integration		40%
Human resource management suite integration		10%
<b>Supplier connectivity and enablement</b>	<b>30%</b>	
Vendor self service portal		30%
Vendor master data management		20%
Supplier network for electronic document exchange		50%

<b>STRATEGY</b>	<b>10%</b>	
<b>Vendor's product strategy</b>	<b>70%</b>	
Planned enhancements		70%
Upgrade delivery cycle		30%
<b>Vendor's corporate strategy</b>	<b>30%</b>	
Focus on procure-to-pay market		50%
Public sector as target market		50%

Source: Forrester Research, Custom Forrester Wave for Procure-to-Pay Options for CoVA

# Forrester Wave™ Procure-to-Pay: Graphic



Source: Forrester Research, Custom Forrester Wave for Procure-to-Pay Options for CoVA

# Forrester Wave™ Procure-to-Pay: Scores

		Forrester Weights	eVA (Ariba/CGI)	Cardinal (PeopleSoft)
<b>Forrester's Overall Scores</b>			<b>4.19</b>	<b>3.86</b>
<b>CURRENT OFFERING</b>		<b>50%</b>	<b>4.23</b>	<b>3.74</b>
Materials purchasing		10%	4.00	5.00
Indirect goods purchasing		15%	4.40	4.30
Contingent workers and contractors		3%	3.00	3.00
Project-based/SOW services		2%	3.00	3.00
Invoice capture and conversion		5%	4.00	4.00
Invoice validation		5%	4.00	4.00
Invoice management		5%	4.00	4.00
End-to-end visibility into procure-to-pay transactions		10%	3.00	5.00
Process configuration		3%	4.00	4.00
Mobility		2%	4.00	3.00
Sourcing		10%	5.00	3.40
Supplier catalog and punch-out support		10%	5.00	2.00
Analytics and reporting		10%	4.20	3.20
Support for CoVA's Procurement Priorities		10%	5.00	3.00
<b>INTEGRATION</b>		<b>40%</b>	<b>4.24</b>	<b>4.20</b>
CoVA systems integration		70%	4.00	4.50
Supplier connectivity and enablement		30%	4.80	3.50
<b>STRATEGY</b>		<b>10%</b>	<b>3.79</b>	<b>3.09</b>
Vendor's product strategy		70%	3.70	2.70
Vendor's corporate strategy		30%	4.00	4.00

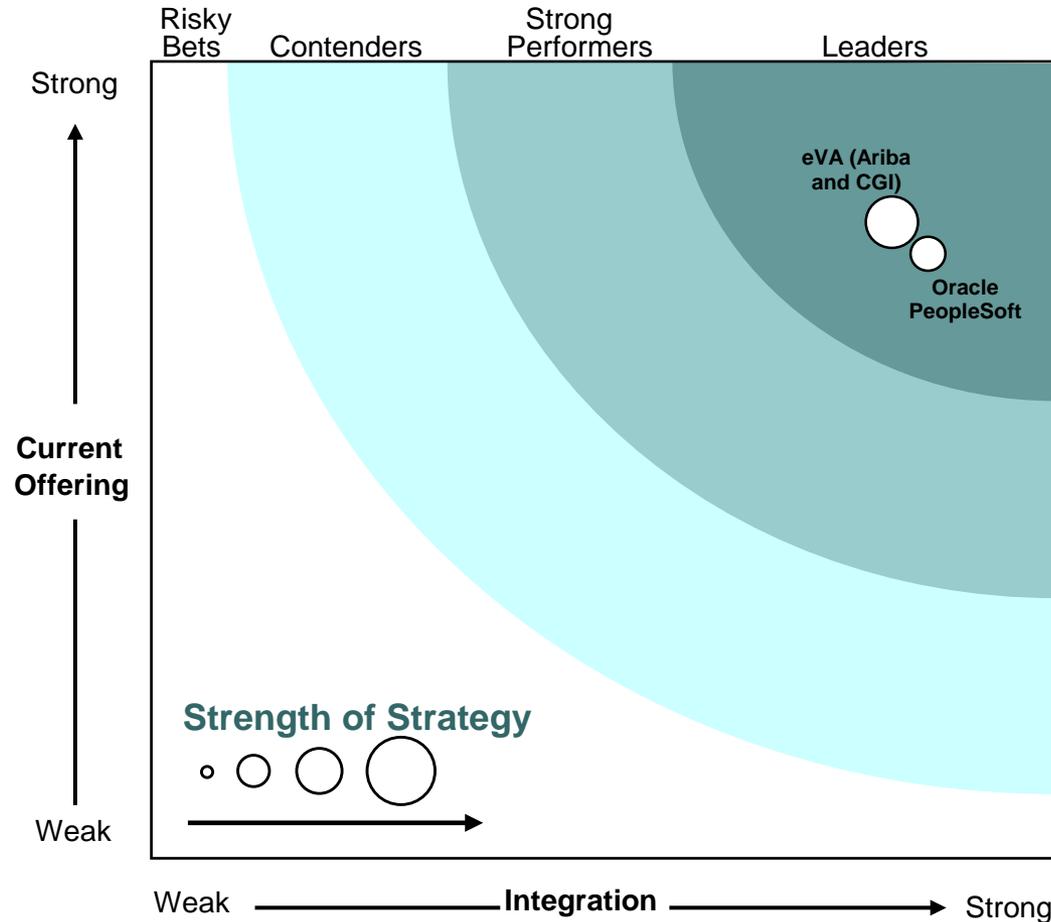
Source: Forrester Research, Custom Forrester Wave for Procure-to-Pay Options for CoVA

# Alternative Forrester Wave™ Procure-to-Pay: Scores with Cardinal Weights

		Cardinal Weights	eVA (Ariba/CGI)	Cardinal (PeopleSoft)
<b>Forrester's Overall Scores</b>			<b>4.19</b>	<b>3.86</b>
<b>Customized Overall Scores</b>			<b>4.11</b>	<b>4.33</b>
<b>CURRENT OFFERING</b>		<b>25%</b>	<b>4.03</b>	<b>3.99</b>
Materials purchasing		10%	4.00	5.00
Indirect goods purchasing		15%	4.40	4.30
Contingent workers and contractors		3%	3.00	3.00
Project-based/SOW services		2%	3.00	3.00
Invoice capture and conversion		5%	4.00	4.00
Invoice validation		5%	4.00	4.00
Invoice management		5%	4.00	4.00
End-to-end visibility into procure-to-pay transactions		20%	3.00	5.00
Process configuration		3%	4.00	4.00
Mobility		2%	4.00	3.00
Sourcing		10%	5.00	3.40
Supplier catalog and punch-out support		5%	5.00	2.00
Analytics and reporting		10%	4.20	3.20
Support for CoVA's Procurement Priorities		5%	5.00	3.00
<b>INTEGRATION</b>		<b>70%</b>	<b>4.16</b>	<b>4.54</b>
CoVA systems integration		80%	4.00	4.80
Supplier connectivity and enablement		20%	4.80	3.50
<b>STRATEGY</b>		<b>5%</b>	<b>3.79</b>	<b>3.09</b>
Vendor's product strategy		70%	3.70	2.70
Vendor's corporate strategy		30%	4.00	4.00

Source: Forrester Research, Custom Forrester Wave for Procure-to-Pay Options for CoVA

# Forrester Wave™ Procure-to-Pay: Graphic with Cardinal Weights



Source: Forrester Research, Custom Forrester Wave for Procure-to-Pay Options for CoVA

# eVA eProcurement

## > Pros:

- Strong support for catalog purchases
- Support for direct materials and sourcing
- Most buyers trained and using eVA
- Most suppliers trained and using eVA
- Strong supplier (Ariba) network
- Strong catalog management with punch-out to over 200 suppliers
- Local government usage support
- [eva.virginia.gov](http://eva.virginia.gov) reporting Website
- Good integration tools for and proven integrations into non-Cardinal ERP systems

## > Cons:

- Current lack of integration with many CoVA ERP financial systems creates costs, inefficiencies, and gaps in visibility through the full procure-to-pay process
- Manual process in most agencies for matching purchase orders from eVA with invoices to generate payment vouchers
- Average tools for services purchases
- Scattered complaints about usability, receipt handling, reports, and performance
- A few suppliers still complain about fees

# Cardinal eProcurement

## > Pros:

- Installed and running in VDOT
- Strong support for specification-driven material purchases
- Good tools for indirect goods procurement
- Average tools for services procurement, but not yet purchased by CoVA – included in models
- Average tools for eInvoicing, but not yet purchased by CoVA – included in models
- License and maintenance cost for core modules already committed for full CoVA deployment
- Ability to combine many procurement product support resources with existing Cardinal Finance system resources
- Focus on out-of-box features means less third-party support needed

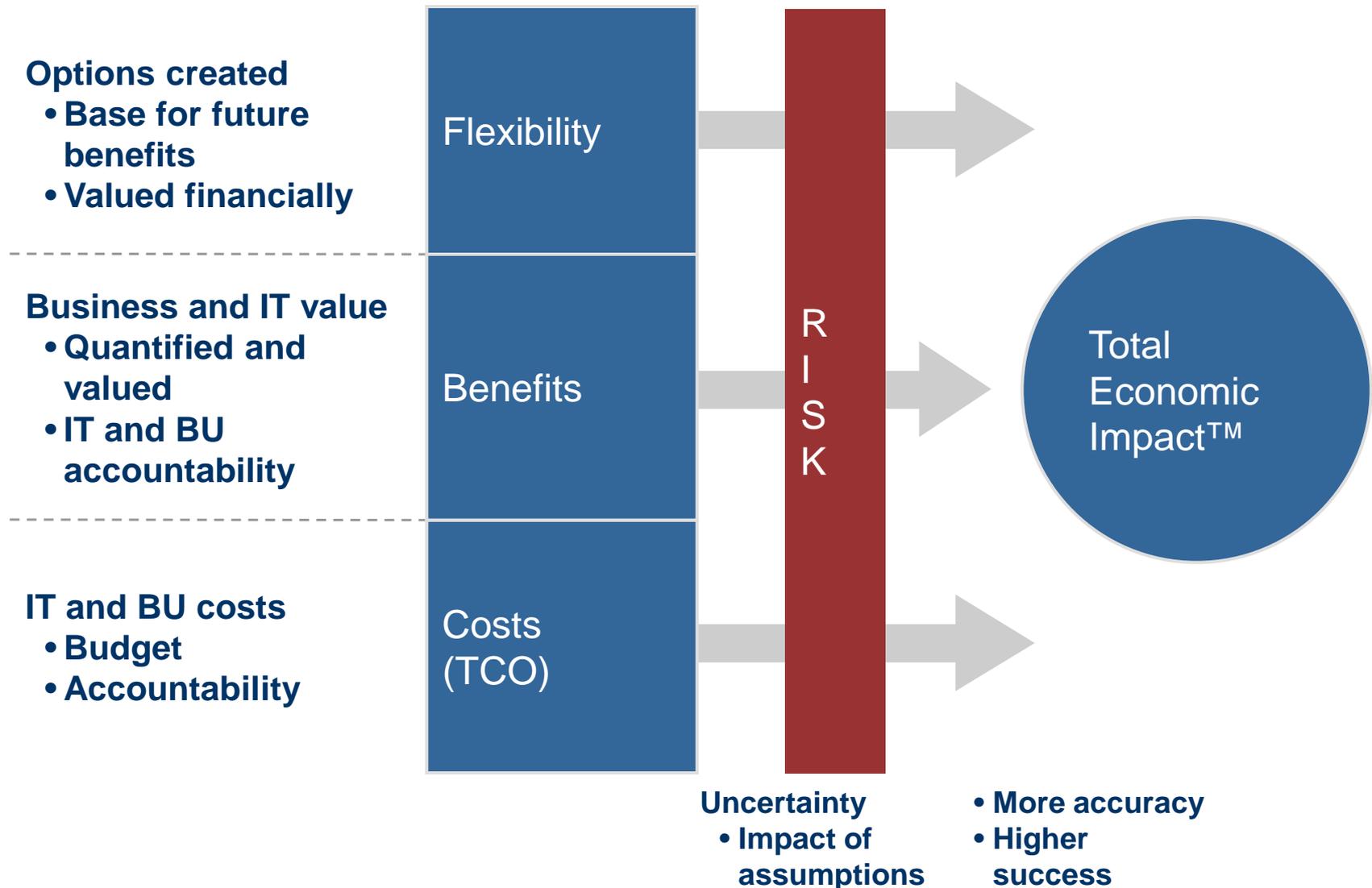
## > Cons:

- Catalog management until PeopleSoft V9.2 has been very weak – not yet purchased by CoVA, included in models
- PeopleSoft has weak supplier network, so CoVA would need to use Ariba network, included in models
- CoVA has not purchased or deployed PeopleSoft catalog management, services procurement or eSettlement (eInvoicing) – costs included in models
- Sourcing and spend analysis tools are average overall
- Weaknesses in integration to non-PeopleSoft ERPs
- Weak support for SWaM
- No local government support
- No current plans for an external portal like [eva.virginia.gov](http://eva.virginia.gov), so added in cost

# Agenda

- › *Executive Summary*
- › *Forrester project team members, and interview learnings*
- › *Defining the procure-to-pay process*
- › *The CoVA debate on process-to-pay – eVA vs. Cardinal*
- › *Key parameters for implementing a procure-to-pay system at CoVA*
- › *Evaluation of eVA vs. Cardinal/PeopleSoft procure-to-pay features, functions and integration*
- › ***Evaluation of the costs, risks, and benefits of fully integrated and deployed eVA vs. Cardinal/PeopleSoft procure-to-pay systems***
- › *Recommendations*

# Forrester's Total Economic Impact methodology



# Forrester's TEI Methodology at CoVA

- › We assumed Benefits would be equal, so we focused on Costs, Risks and Flexibility
- › Costs - both eVA and Cardinal cost estimates across different:
  - Cost categories:
    - › Software and hardware licensing, or service subscription fees
    - › Integration with ERP instances such as Oracle, Banner, CARS/Cardinal and others
    - › Implementation at individual agencies, as well as training
    - › Resource and management costs
    - › Added functionality such as the eVA reporting portal
  - Cost Options:
    - › Cardinal to eVA's current deployment
    - › Cardinal and eVA to best practices ideal integration and implementation at each
    - › With or without eSettlement (PeopleSoft) and eInvoicing (Ariba) modules
  - Other Considerations such as:
    - › Including eVA supplier fee revenue
    - › Including in the Cardinal model estimate costs for local government organizations to replace eVA functionality
- › Risks – including implementation, communication and organization risks
- › Flexibility benefits – such as long term integration savings and organization opportunities

# Procure-to-pay solution benefits

## The benefits of procure-to-pay fall into three broad categories:

1. Financial controls – knowledge and control of which employee has purchased which item(s) from which supplier(s), and the ability to avoid inappropriate or unjustified expenses.
2. Process efficiency – reducing the cost, waste, and errors in paper-based, manual purchasing and sourcing activities
3. Contract savings capture – assuring that 80% to 100% of negotiated savings with suppliers are captured in practice by using procurement system to guide employees to buy from the preferred supplier at the contract price, vs. 40% to 60% capture of savings without a procurement system

**While we have assumed either alternative would have equal benefits, any reduction of scope of coverage (e.g., exclusion of universities or local governments) or function (e.g., exclusion of invoicing or services procurement) will reduce the second and third categories of benefits.**

- If universities or local governments are outside the system, CoVA-negotiated contract savings would be smaller due to less spend volume to suppliers, and actual savings would be reduced due to higher off-contract spending.

# How the benefits of a procure-to-pay solution could change if its scope was reduced to exclude universities and local governments

- › CoVA has over 500 state contracts with suppliers of commonly used goods and services (not counting IT goods and services), with an estimated annual spend of \$400 million/year and estimated savings to the Commonwealth and local governments of \$40 million/year.
- › According to DGS, 80% of those contracts are based on suppliers expecting all CoVA agencies and local governments having access to those contracts, with many expecting 30%-80% of local governments able to use those contracts.
- › DGS has estimated that if an eProcurement system does not have eVA's breadth of coverage of CoVA agencies, universities, and local governments, CoVA would be at risk of losing two to three percentage points of the average 10% discount on the contracts, since universities and local governments would not have the easy, direct access to these contracts provided by eVA.
- › **Should this happen, the benefits of an alternative eProcurement system would be reduced by up to \$8 to \$12 million per year.**

# Summaries of Five Deployment/Integration Pivots

## TEI Cash Flow Analysis – Five Year Net Present Value (NPV)

Cost Comparison	eVA	Cardinal	Hybrid <sup>#</sup>
Amortized 5-year NPV of Total Risk-Adjusted CoVA Procure-to-Pay Costs <i>without</i> options for expanded integration or eInvoicing/eSettlement	(\$61.6 million)	(\$71.8 million)	(\$73.5 million)
<b>Amortized 5-year NPV of Total Risk-Adjusted CoVA Procure-to-Pay Costs <i>with</i> options included *</b>	<b>(\$65.8 million)</b>	<b>(\$76.6 million)</b>	<b>(\$78.7 million)</b>
eVA Amortized 5-year NPV of Total Risk-Adjusted CoVA Procure-to-Pay Costs <i>with</i> options <i>and</i> extras (for eVA this includes revenue from Supplier Fees)	(\$28.6 million)		(\$46.7 million)
Cardinal Amortized 5-year NPV of Total Risk-Adjusted CoVA Procure-to-Pay Costs <i>with</i> options <i>and</i> extras (for Cardinal this includes Local Government resource costs)		(\$100.8 million)	
Un-Amortized 5-year NPV of Total Risk-Adjusted CoVA Procure-to-Pay Costs <i>with</i> options <i>and</i> Local Government resource costs	(\$74.4 million)	(\$145.9 million)	
Estimated Break Even Point of unamortized cash flows (eVA as a SaaS solution has lower up-front costs, but Cardinal has lower annual costs)	Based on the unamortized cash flows, Cardinal would be a more cost-effective solution about <b>year 10</b> only if supplier revenue & local gov costs weren't included (and updates or changes could extend that time)		

- Given the small and relatively equal differences between matching current eVA implementation and deploying a fully integrated solution, including eSettlement/eInvoicing, one scenario (with options) will be reviewed in upcoming slides # Hybrid option includes Cardinal Procurement for all agencies with Cardinal Financials, and eVA for the rest.

# A comment on supplier fees and Cardinal

**Our analysis has not included supplier fees as an offset or means of paying for the cost of Cardinal procurement.**

**The Cardinal team has argued that supplier fees could be introduced.**

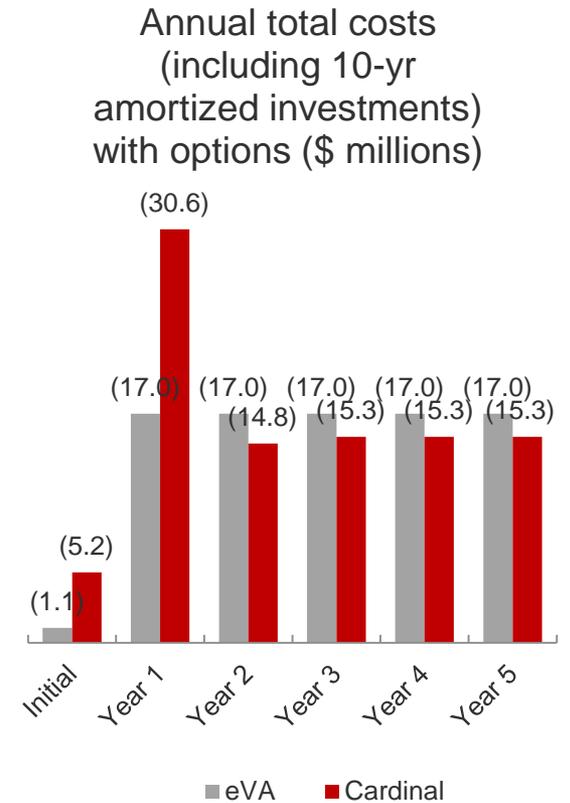
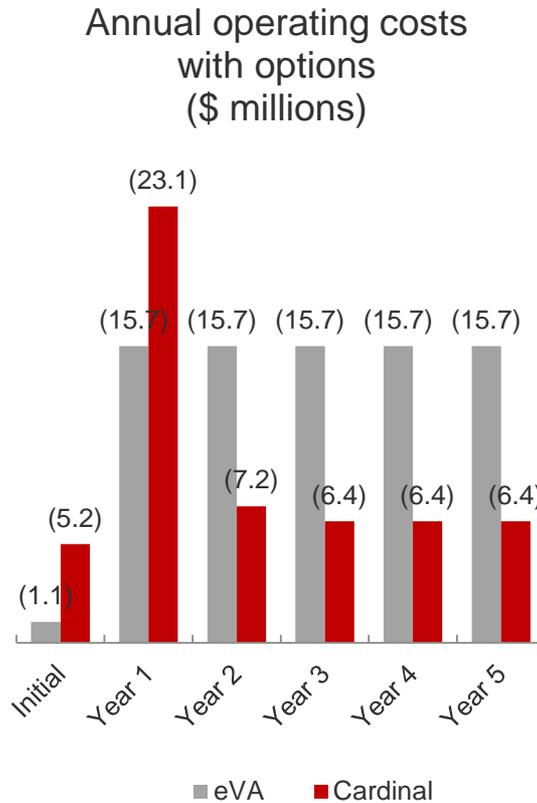
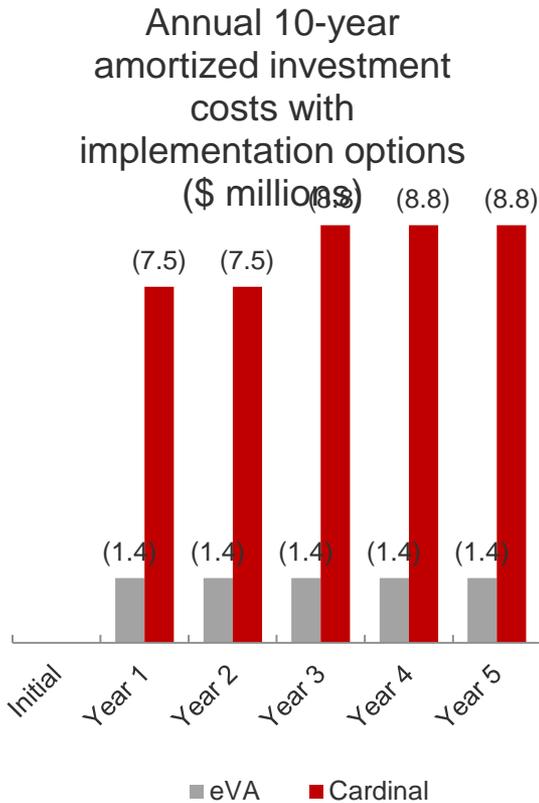
- We did not include supplier fees as in the Cardinal TEI model, because:
  - We believe it would require new legislation for Cardinal to introduce such fees, with uncertain prospects of adoption.
  - It would be challenging for Cardinal with its cost structure to replicate eVA's supplier-fee model with its linkage to and justification as cost recovery for CGI's fixed annual fees.
- However, if supplier fees were introduced for Cardinal, for consistency to eVA we think they should be tied to 80% of Cardinal's CGI-equivalent operating costs of \$4.4 million per year, or to 80% of its total annual amortized and operating costs of \$11.8 million to \$12.4 million, excluding eVA-equivalent staff.
  - The five-year NPV of the former would be \$13.4 million.
  - The five-year NPV of the latter would be \$36.6 million.
  - Either would be less than the \$40 million NPV of eVA's supplier fees.
  - In the best case, Cardinal's five-year NPV with supplier fees would be \$40 million, compared with eVA's similar cost of \$28.6 million.

# Cardinal has high initial costs, but after year 2 eVA would \$1.7 million per year more expensive than Cardinal

Cardinal has higher annual amortized investment costs

After year 1, eVA has higher annual operating costs

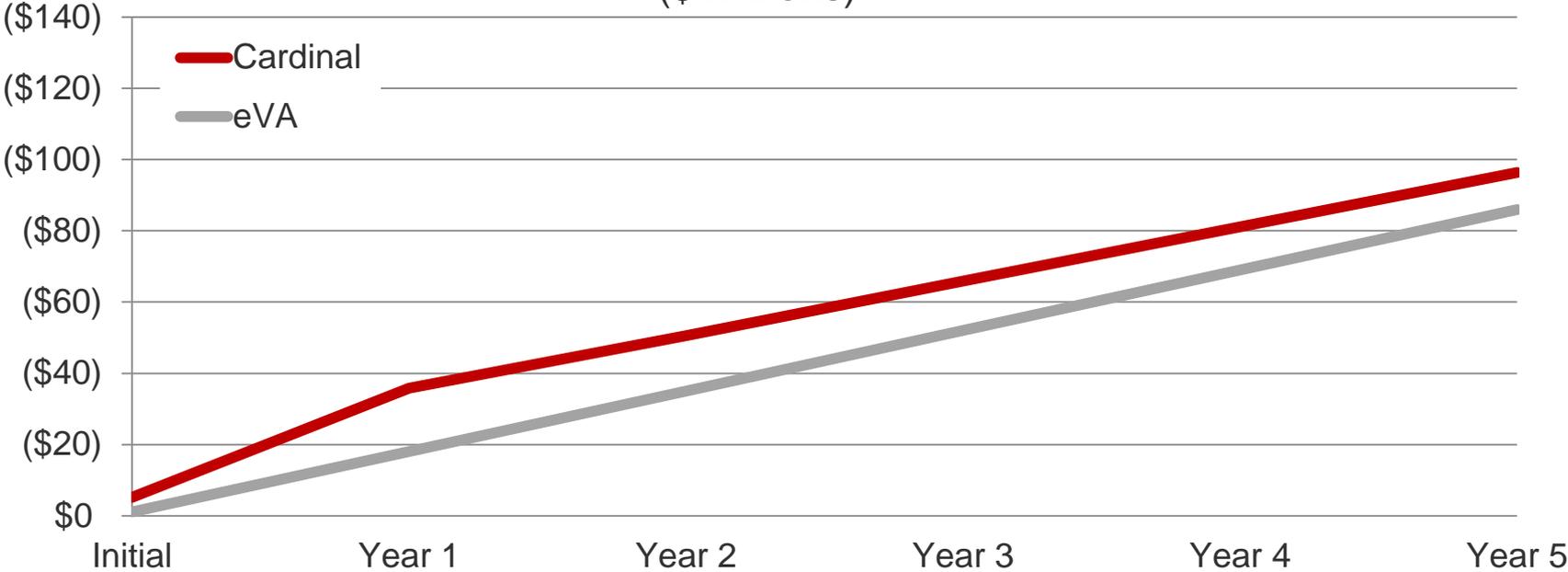
In total, eVA has slightly higher annual costs than Cardinal



Note: Annual costs are risk-adjusted estimates

# But higher up-front costs means it takes years for Cardinal to catch up – around year 10

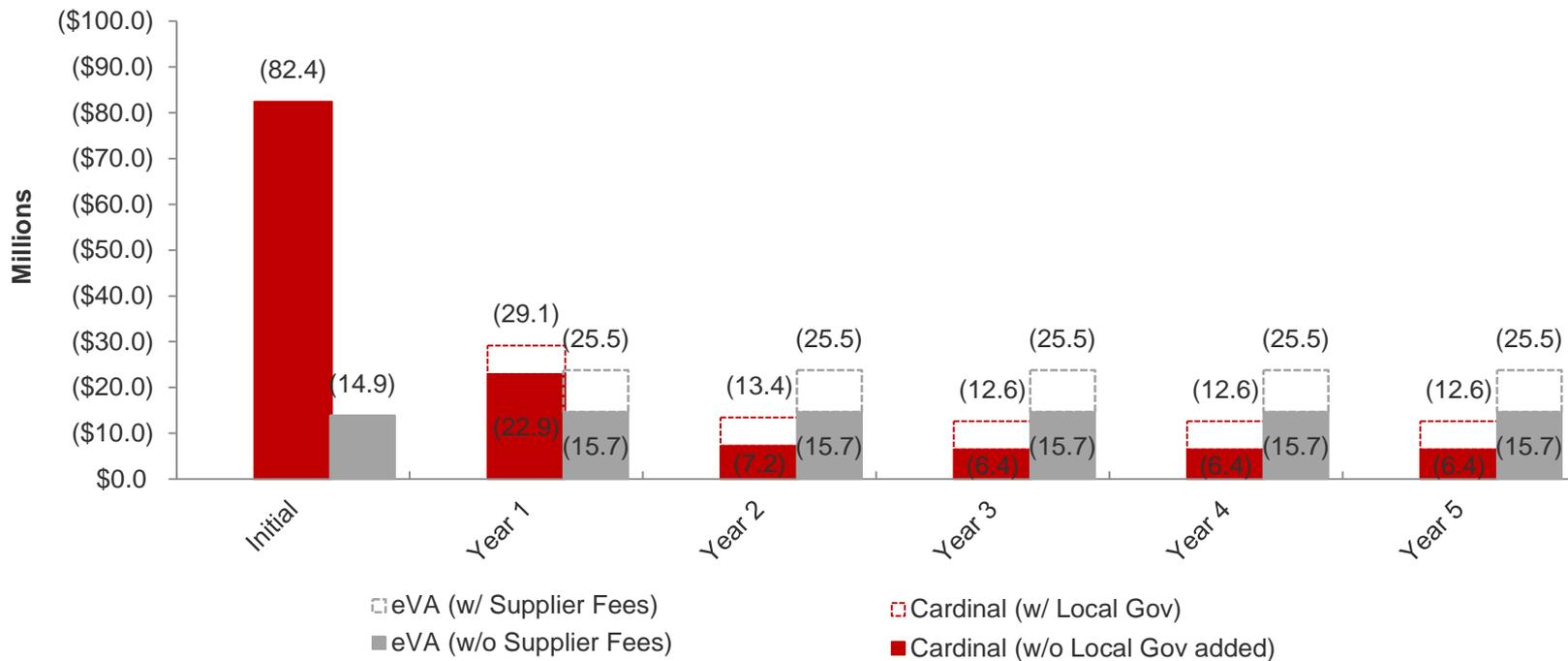
Cumulative costs (including 10-yr amortized investments) with options  
(\$ millions)



# Looking at un-amortized costs, after Year 1, eVA is \$8.5 million per year more expensive than Cardinal

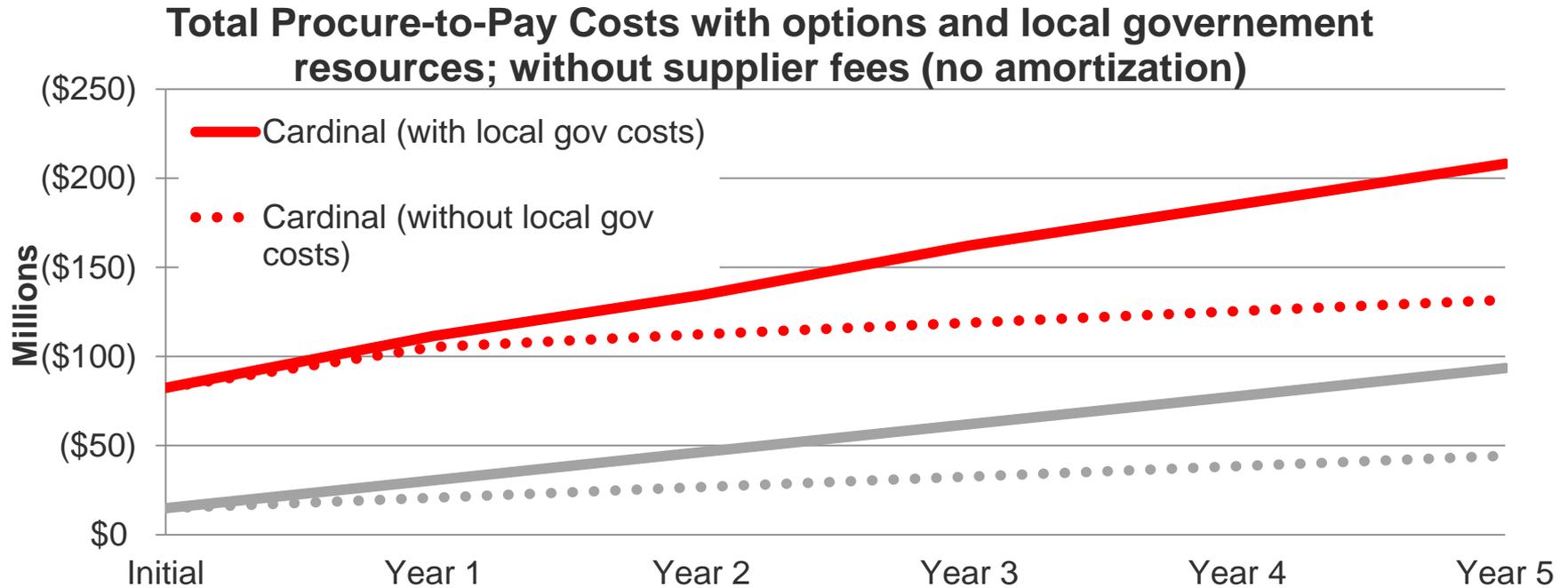
But with high un-amortized up-front costs, that is a high hurdle to overcome.

Annual total costs (unamortized)  
(\$ millions)



# Cash Flow Analysis of Implementation and Integration (With Options and Local Government Costs – Un-Amortized)

Only if added revenues and costs are excluded does Cardinal catch up to eVA – in year 10 or later.



**Long Term Cost Comparison - Cardinal becomes the less expensive option in year:**

	eVA w/o Supplier Fees	eVA w Supplier Fees
Cardinal w/o Local Gov	10 or later	never
Cardinal w Local Gov	never	never

# CoVA Procure-to-Pay TEI Evaluation for Cardinal

## Total Economic Impact (TEI) Financial Summary for Cardinal

	Cardinal TEI Cost Summary	5 Year NPV
Amortized Costs One Time, Amortized over 10 years	New PeopleSoft Services Procurement and Catalog Software License Costs	(\$259,478)
	Cost to Integrate Cardinal Procurement with Eight Agencies/ERP Instances that have real-time integration with eVA already	(\$1,625,026)
	New front-end procurement process implementation costs at each agency	(\$24,582,114)
	Cost to Integrate or Interface with Cardinal Procurement for Rest of CoVA Agencies/ERPs	(\$2,515,718)
	Additional Finance-related Process Implementation at non-eVA Integrated Agencies	(\$1,518,334)
	eSettlement Licensing, Integration and Implementation Costs (Separate for Summary)	(\$750,251)
One time and Annual Operations Costs	Training Costs - One Time	(\$4,336,250)
	Cost of Ramp-Up time - One Time	(\$553,297)
	New Hardware Costs - Annual	(\$3,932,562)
	New PeopleSoft Services Procurement and Catalog Software Maintenance and Ariba Network Fees - Annual	(\$2,287,808)
	New Hardware Maintenance Costs - Annual	(\$1,061,792)
	Procure-to-Pay Operations and CoVA Procurement Resource Costs - Annual	(\$26,375,322)
	Web Portal Development and Management Costs - One Time (Amortized) and Annual	(\$6,359,045)
	Cost of training new employees due to added turnover - annual	(\$473,273)
	<b>Total CoVA Full Procure-to-Pay Costs (Risk-Adjusted)</b>	<b>(\$76,630,270)</b>
	Cost of Local Government Training and Added Procurement Resources - One Time, Amortized over 10 years	(\$24,166,381)
	<b>Total Costs (Risk-Adjusted) with options and Local Government Impact</b>	<b>(\$100,796,651)</b>

# Forrester's CoVA Procure-to-Pay TEI Framework for Cardinal

## TEI Risk Analysis for Cardinal

Risk	Impact	Prob	Mitigation
Asking all CoVA buyers and suppliers to learn a new procurement system can lead to resistance, frustration and rework	High	High	Need to communicate clearly and take time rolling out. Estimates risk-adjusted to add time/cost for process implementation, training and rework
Asking CoVA buyers to retrain on a new system will lead to greater turnover – buyers will opt to leave	High	Med	Announce early; allow time to understand impact & bring on new people as needed; cost category added.
Cardinal procurement to roll out to many agencies & ERP systems – could create unforeseen issues	High	High	Estimates risk-adjusted to add integration time/cost.
Cardinal not currently scoped to include public Web interface like <a href="http://eva.virginia.gov">eva.virginia.gov</a> , required to meet public transparency requirements	Med	Low	Estimates risk-adjusted to add development and management time/cost to create such an interface.
Cardinal is not currently planning to support local government resources; local organizations will need to hire more purchasing resources. Also 19 private colleges need access to CoVA contracts	High	Med	Staffing estimates risk-adjusted. Also note these costs are not Commonwealth costs, but will be costs for local governments in Virginia

# Forrester's CoVA Procure-to-Pay TEI Framework for Cardinal

## TEI Risk Analysis for Cardinal (Continued)

Risk	Impact	Prob	Mitigation
Vendor support – No self-registration option leaves electronic signatures unaddressed by suppliers; does not fit procurement requirements for multi-location suppliers that have different business locations in different lines of business.	High	Med	No self-registration will lead to increased support required by Cardinal team (included in model). PeopleSoft handles parent-child vendor relationships different than eVA – unconfirmed specifics, but will need to support multiple vendor instances with unique tax ids, shipping locations, and payment accounts.
Procurement processes vs. systems owned and managed by different agencies can lead to added cost, confusion & conflict	High	High	Governance issues when procurement department manages purchasing policies and processes but procurement system is owned and managed by different agencies
Oracle has targeted 2027 for PeopleSoft end (in favor of Fusion). Could lead to higher upgrade and migration costs	High	Med	Prepare for eventual move to Fusion. Ensure that interim PeopleSoft updates help with eventual Fusion migration, especially as Oracle's current communications have been messy
Transition to the Cardinal will require law changes that may not pass the Legislature.	High	Low	eVA is embedded in CoVA laws, and its replacement with Cardinal will require attention to local governments and others that benefit from eVA

# Forrester's CoVA Procure-to-Pay TEI Framework for Cardinal

## TEI Risk Analysis for Cardinal (Continued)

Risk	Impact	Prob	Mitigation
Cardinal will not capture PO numbers from non-Cardinal ERP systems, leading to PO-to-Purchase matching issues even if Cardinal is used for procurement	Med	Med	Current stated position of Cardinal team in agency briefings can be reversed or modified
Many of the 127 non-Cardinal agencies and universities may choose to opt out of using Cardinal Procurement, reducing the benefits of a single procurement system	High	Med	Address integration needs and requirements of non-Cardinal agencies and universities

# Forrester's CoVA Procure-to-Pay TEI Framework for Cardinal

## TEI Flexibility Analysis for Cardinal

Flexibility Benefit	Impact	Potential	Result
Single ERP Financial and Procurement System	Medium	High	Having PeopleSoft Financials & Procurement will facilitate integration with future PeopleSoft systems for those agencies that use Cardinal (though not for non-Cardinal agencies), likely leading to lower deployment and operations costs for those systems, such as HR.
Application ownership can reduce long-term risk	Medium	Medium	Owning (rather than subscribing to a SaaS solution) reduces vendor relationship risk -- even if the vendor stops supporting the application or goes out of business, you still own the code. Though long term this can also add costs if the application becomes too specialized.
Fungible Resources	Medium	High	With both financial and procurement systems on PeopleSoft, resources can be used between both as needed. Very few incremental resources are needed.

Flexibility, as defined by Forrester's TEI, represents an investment in additional capacity or capability that could be turned into business benefit for some future additional investment. This provides an organization with the "right" or the ability to engage in future initiatives, but not the obligation to do so.

# CoVA Procure-to-Pay Evaluation Framework for eVA

## Total Economic Impact (TEI) Financial Summary for eVA

	eVA TEI Cost Summary	5 Year NPV
Amortized Costs One Time, amortized over 10 years	Total Implementation Costs for VDOT to implement eVA	(\$119,884)
	New front-end process implementation costs at VDOT and other agencies not using eVA for requisitions	(\$813,124)
	Optional: New Data Integration/Interface Costs for all agencies without real-time integration	(\$2,605,123)
	Optional: New Data Finance Process Implementation Costs -	(\$391,759)
	Optional: Implementing eInvoicing	(\$1,250,960)
One time and Annual Operations Costs	Incremental Training - One Time	(\$1,105,384)
	CGI Fees/SaaS Cost for eVA - Annual	(\$50,891,904)
	CoVA Procurement System Management Costs for eVA - Annual	(\$8,645,102)
	<b>Total CoVA Full Procure-to-Pay Costs (Risk-Adjusted)</b>	<b>(\$65,823,239)</b>
	Total Revenue from Supplier Fees - Annual	\$37,221,231
	Total Costs (Risk-Adjusted) with options and Supplier Fees	(\$28,602,008)

# Forrester's CoVA Procure-to-Pay TEI Framework for eVA

## TEI Risk Analysis for eVA

Risk	Impact	Prob	Mitigation
DGS and VDOT have not communicated well in the past; this could create problems	Medium	Medium	Rebuild communication between DGS and VDOT teams, as well as implement a Governance system to ensure clear communications and procedures
eVA Data Integration and Implementation may take longer than planned	High	Medium	Integration and Implementation estimates have been risk-adjusted
VDOT will need to learn a new system and be retrained – may take longer than expected	Low	Medium	Training estimates have been risk-adjusted
eInvoicing implementation may take longer than expected	Medium	Medium	Estimates have been risk-adjusted. Also this cost is optional
CGI could raise fees	High	Very Low	Not adjusted in the model, but it is worth mentioning that CGI could create issues for CoVA by raising fees. Keep a good relationship with CGI
SAP could reduce/end Ariba support	High	Low	SAP has purchased Ariba, and could change product strategies that could impact eVA. Talk to SAP/Ariba

# Forrester's CoVA Procure-to-Pay TEI Framework for eVA

## TEI Flexibility Analysis for eVA

Flexibility Benefit	Impact	Potential	Result
Ariba provides best-of-breed catalog procurement	Medium	Long-term	With Ariba's current and future selection of modules, CoVA could implement more advanced procurement options to meet future needs.
Multiple vendors allows for greater upgrade flexibility	Medium	Mid/Long-term	Common strategy today is for an organization to choose a core ERP solution covering key operations like finance, HR, etc. Then add best-of-breed solutions around it, such as procurement, etc. SOA is way to achieve integration between systems to gain the best features without being locked into a single vendor.
More organizations can participate	High	Near-term	Local governments, as well as private universities, can continue to leverage eVA and new ones can start.
SaaS, multi-tenant solution provides several deployment options	High	Ongoing	For example, local governments can be granted access but limited to specific information. And new types of organizations can be added in the future.

Flexibility, as defined by Forrester's TEI, represents an investment in additional capacity or capability that could be turned into business benefit for some future additional investment. This provides an organization with the "right" or the ability to engage in future initiatives, but not the obligation to do so.

## A comment on a third or Hybrid option

We have focused on the “binary” (e.g., all eVA or all Cardinal) options, but have included analysis on a third solution that includes parts of both

- The hybrid option includes parts from both TEIs:
  - Implementation and integration costs for eVA as outlined in the TEI, except for a few small costs that are avoided, such as implementing at VDOT.
  - eVA agency fees are reduced by two-thirds, since VDOT and other Cardinal agencies would not be using eVA for procurement and so would not pay these fees. This would reduce eVA fee revenue by about 18%, which would need to be made up by appropriation or changes to the fee model such as higher supplier fees.
  - Additional incremental costs found in the Cardinal TEI are included – implementation, integration, training, etc., for agencies that will also have Cardinal Financials.
- **Overall, the result is an option that is either more expensive than either of the other options, or is more expensive than eVA but cheaper than Cardinal (depending on whether or not supplier fee revenue is included)**

# CoVA Procure-to-Pay TEI Evaluation for a Hybrid Solution

## Total Economic Impact (TEI) Financial Summary for a Hybrid eVA + Cardinal Solution

	Hybrid TEI Cost Summary	5 Year NPV
Amortized Costs One Time, amortized over 10 years	New front-end process implementation costs all agencies not fully using eVA	(\$933,007)
	Cost to Integrate Cardinal Procurement with eVA for specific data needs	(\$236,353)
	New front-end Cardinal procurement process implementation costs at each agency	(\$4,328,562)
	Cost of Ramp-Up time for new Cardinal users	(\$80,276)
	Optional: New Data Integration/Interface Costs for all eVA agencies that don't have it	(\$2,511,301)
	Optional: New Data Finance Process Implementation Costs related to both eVA and Cardinal	(\$1,212,688)
	Optional: Implementing eInvoicing for eVA	(\$1,250,960)
	Optional: Cardinal Integration and Implementation Costs between Cardinal and eVA eInvoicing	(\$245,807)
One time and Annual Operations Costs	Incremental Training for all agencies – One Time	(\$1,548,384)
	New Hardware Costs for Cardinal – Annual	(\$1,040,144)
	New Hardware Maintenance Costs for Cardinal - Annual	(\$280,839)
	CGI Fees/SaaS Cost for eVA – Annual	(\$50,891,904)
	CoVA Procurement System Management Costs for eVA – Annual	(\$8,645,102)
	CoVA Procurement System Management Costs for Cardinal – Annual	(\$5,531,373)
	<b>Total CoVA Full Procure-to-Pay Costs (Risk-Adjusted)</b>	<b>(\$78,736,700)</b>
	Total Revenue from Supplier Fees for eVA – Annual	\$31,964,293
	Total Costs (Risk-Adjusted) with options and Supplier Fees	(\$46,772,407)

# Benefits, risks, and issues with the hybrid option

## There are several benefits with the hybrid option

- Hybrid option benefits:
  - Procurement system changes can be kept to a minimum, and just for agencies that are also already changing to the new Cardinal Financial system
  - Other agencies that have eVA interface or integration (such as most colleges and universities) can keep their existing investment
  - Cardinal Procurement could be rolled out more broadly at any time in the future, should an agency choose to, or if they are upgrading/switching to Cardinal Financials
  - Local governments and private universities would be able to continue being supported by eVA
  - The eVA Portal site could continue to operate
  - The supplier fee model would not need to be completely changed
  - VDOT could continue using Cardinal Procurement, with which they are comfortable

# Benefits, risks, and issues with the hybrid option

## The hybrid option has additional costs as well as risks and issues

- Hybrid option issues and risks:
  - Without factoring in supplier fees, it is more expensive than either option on its own
  - Supporting two systems creates added complexity
  - While Cardinal meets the needs of VDOT, its complexity, weak catalog management, and weaker ease-of-use makes it a poor fit for other Cardinal agencies that primarily buy indirect goods
  - Suppliers who sell to multiple agencies will need to use and manage interactions with two different procurement systems
  - Contract management through two systems may not provide as high a volume purchasing discount as CoVA sees today
  - The previous two points may lead to increased supplier cost-of-goods-sold, which would be passed on to CoVA
  - It is unclear how eVA and Cardinal Procurement data would integrate in Cardinal Financials, and what kind of all-CoVA spending analysis would be available
  - It is unclear how the eVA Portal reporting agency and SWaM spending would include Cardinal data (if at all)

# Agenda

- › *Executive Summary*
- › *Forrester project team members, and interview learnings*
- › *Defining the procure-to-pay process*
- › *The CoVA debate on process-to-pay – eVA vs. Cardinal*
- › *Key parameters for implementing a procure-to-pay system at CoVA*
- › *Evaluation of eVA vs. Cardinal/PeopleSoft procure-to-pay features, functions and integration*
- › *Evaluation of the costs, risks, and benefits of fully integrated and deployed eVA vs. Cardinal/PeopleSoft procure-to-pay systems*
- › ***Recommendations***

# Recommendations

- › In a binary recommendation between eVA and Cardinal, we continue to recommend that CoVA continue with eVA, while making investments to provide full real-time integration between eVA and all the Cardinal and non-Cardinal ERP systems in CoVA
  - Based on our Forrester Wave evaluation, we believe that the eVA option would provide better procure-to-pay functionalities than the PeopleSoft equivalents, and better integration with the many non-Cardinal ERP systems being used in CoVA, though Cardinal Procurement would provide better integration with the Cardinal ERP systems being rolled out to many CoVA agencies
  - Based on our TEI models, Cardinal is more expensive than eVA on a 5 year NPV basis, due to high initial costs. While Cardinal after full roll-out would have lower annual costs, the differences are relatively small at \$1-\$2 million per year. Factoring in eVA's current supplier-funded model and the cost of local governments replicating eVA's procurement services tips the advantage to eVA
  - We also believe that the risks involved in switching from eVA to Cardinal are significant, including disruption in the current levels of services provided by eVA to the Commonwealth as a whole in terms of purchasing savings, to CoVA agencies, and to local governments

## Recommendations (continued)

- › After further analysis, we now do not recommend the hybrid option that would combine Cardinal eProcurement for CARS agencies but eVA for eProcurement for all other agencies and eVA for sourcing, catalog management, and supplier network services for all CoVA
  - The hybrid option would avoid the cost and disruption of VDOT replacing Cardinal eProcurement with eVA, and the cost of integrating eVA to Cardinal ERPs.
  - However, it would be more costly than the eVA option, introduces more complexity into the CoVA procure-to-pay environment, forces Cardinal-using agencies other than VDOT to shift their procurement from familiar and easier-to-use eVA to different and harder-to-use Cardinal procurement, continues the disruptive conflict between the Cardinal and eVA teams, creates interface issues for suppliers, and could reduce the current level of supplier discounts.
  - CoVA would still have Cardinal procurement on the shelf for activation should CGI fees rise, and as leverage to negotiate lower CGI fees at contract renewal in 2017.



# Thank you

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# Appendix

# Interviews Conducted (1 of 2)

Int #	Group Title	Stakeholder Area	Participants	Date Completed
1	eVA System	Procurement System	Bob Sievert, eVA Business Manager	10-Apr
2	Department of General Services/ DPS	Procurement Operations	Ron Bell, Director of the Division of Purchases and Supply	10-Apr
3	Department of General Services/ DPS	Procurement Operations	Rich Sliwoski, Director, Department of General Services (DGS)	10-Apr
4	Cardinal System	Finance System	Stacy McCracken, Ned O'Neill, Tim Sartini	10-Apr
5	Department of Motor Vehicles	Duplicate procurement system	Dave Burhop, Deputy Commissioner/CIO, David Mitchell, Deputy Commissioner Admin/Finance	16-Apr
6	Dept. Agriculture & Consumer Services State	State Agency - eVA System User	Jennifer Cavedo, Director, Administrative & Financial Services Ronald King, Administrative & Financial Services	16-Apr
7	Virginia Community College System	eVA integration	Keith Gagnon, Directory of Procurement	16-Apr
8	Virginia Information Technologies Agency	Enterprise Applications, Architecture, Infrastructure	Sam Nixon, Chief Information Officer (CIO) Jerry Simonoff, Director of IT Investment & Enterprise Solutions	16-Apr, 9- May, 4- Jun
9	Department of Transportation	Large Agency	Greg Whirley, Head of VDOT	17-Apr
10	Auditor of Public Accounts	Financial management accountability	Martha Mavredes, Auditor of Public Accounts Karen Helderman , Information Systems Development	17-Apr
11	Department of Corrections	Large Agency - eVA user	Scott Magazine, Director of Procurement and Risk Management	17-Apr
12	Catawba Hospital	State Agency - eVA System User	Robyn Wright, Director of Purchasing & Contracting	17-Apr

## Interviews Conducted (2 of 2)

Int #	Group Title	Stakeholder Area	Participants	Date Completed
13	Vendor	Luck Stone	Randy Weingart, Director: Materials and Research + 3 colleagues	17-Apr
14	Department of Accounts	Finance Operations	Randy McCabe & David Von Moll (joined by Stacy McCracken & Ned O'Neil)	17-Apr
15	County of Henrico	Local Government Procurement	Marvis W. Marshall (Ms), Supplier Relations Manager	18-Apr
16	City of Lynchburg	Local Government Procurement	Deborah Powell, Director of Procurement	19-Apr
17	Vendor	Superior Global	Sandra Sylvester, President	19-Apr
18	Vendor	Roanoke Stamp	Frank Freeman, President	25-Apr
19	Vendor	Virginia Transportation Construction Alliance (VTCA)	Jeffrey C. Southard, Executive Vice President	29-Apr
20	University	Virginia Commonwealth University (VCU)	C. Edward Gibbs, Director, Department of Procurement and Payment	9-May
21	Department of General Services/DPS	Department of General Services (DGS)	Brian Wagner, Commissioner	19-Jun
22	Peer Interview	Georgia State	Leslie Lowe, Assistant Commissioner, Procurement, Georgia State Purchasing Division	26-Apr
23	Peer Interview	Connecticut State	Carol Wilson, C.P.M., Director of Procurement	22-Apr
24	Peer Interview	Delaware Purchasing	Dean Stotler, Director, Government Support Services, Office of Management and Budget	25-Apr
25	CGI	CGI	Ismail Mohideen, Judy Napier, Chantal Godbout	26-Apr

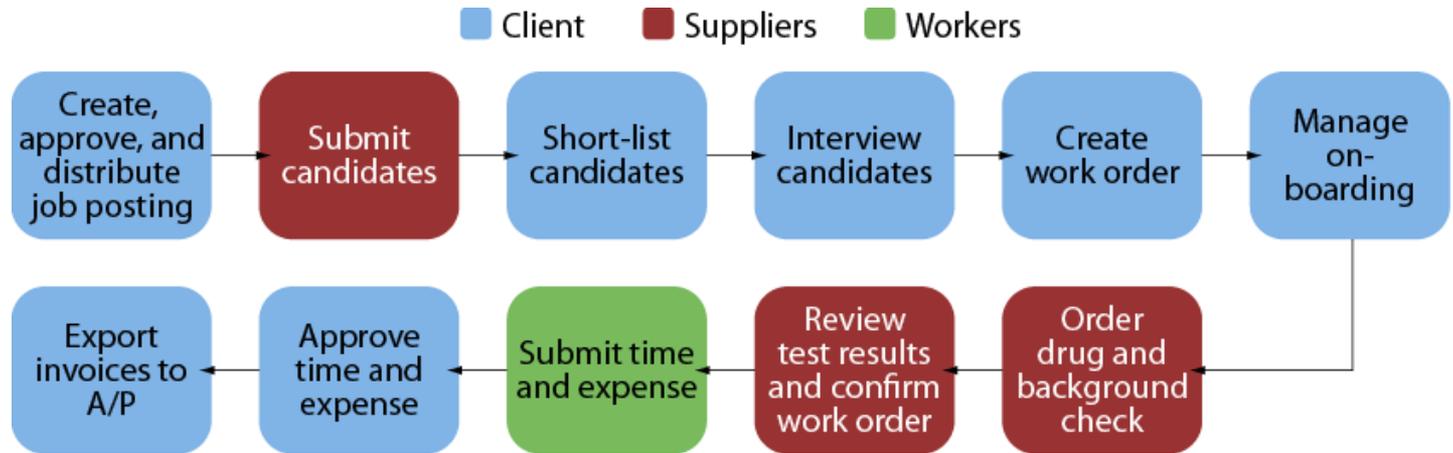
# Definitions of ePurchasing products

Product	Key features
eProcurement	Requisitioning, approvals, employee-facing catalog, punch-out to suppliers, and catalog management tools
eSourcing	RFQ/RFP/RFI generation and distribution; collaborative response scoring; reverse auction; multivariable complex sourcing and scoring; sourcing team project and activity management
Contract lifecycle management (CLM)	Contract terms and conditions library; contract creation templates, wizards, and guides; contract repository for all finished contracts; reports and analysis
Spend analysis	Loading of spend data; cleansing and normalizing of spend data; classification into spend categories; identification of savings opportunities; reports and analysis
Supplier risk and performance management	Supplier master data management; internal supplier data collection and presentation, including employee satisfaction surveys and rating; external supplier financial data, social responsibility rating, diversity ratings, and other risk information; supplier qualification data for potential suppliers
Services procurement	Requisitioning and approvals for purchases of contingent workers and project services; support for services pricing mechanisms; tracking of time cards and project completion; onboarding of contractors and consultants
Electronic invoice presentment and processing (EIPP)	Capture of electronic invoice data; automated matching of invoice with PO, contract, and receipt; workflow to approve unmatched invoices; cash forecasting, discount management, and financing; support for dynamic discounting

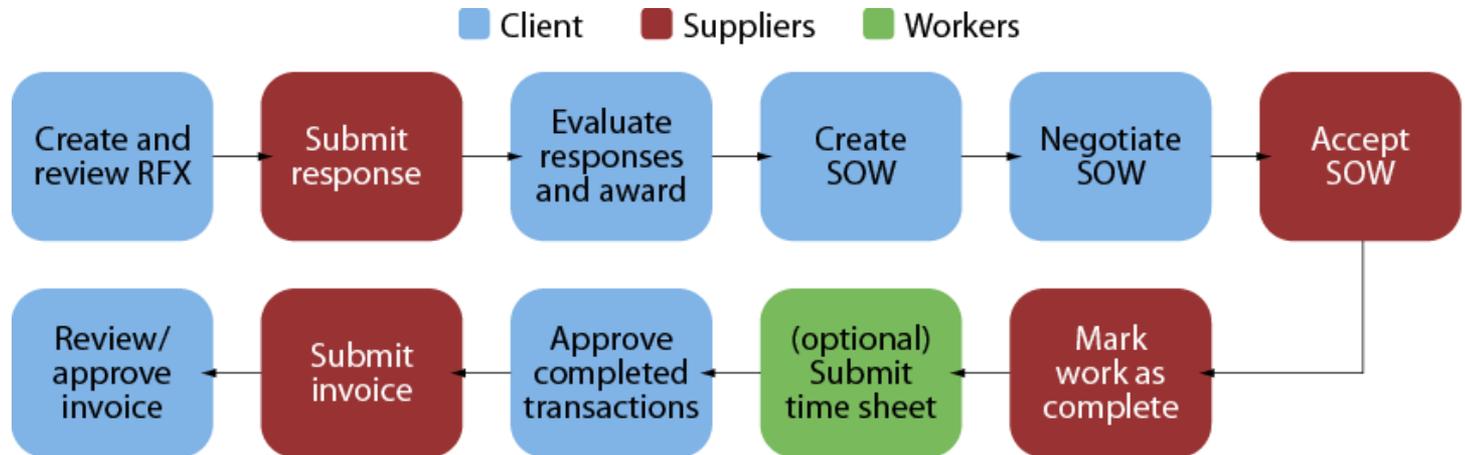
# Procure-to-pay process for services

## Process for services

### Contingent Worker



### Project-Based/SOW



# Different CoVA agencies have different mixes of spending by category

## Distribution of CoVA agency spend by category, fiscal 2012

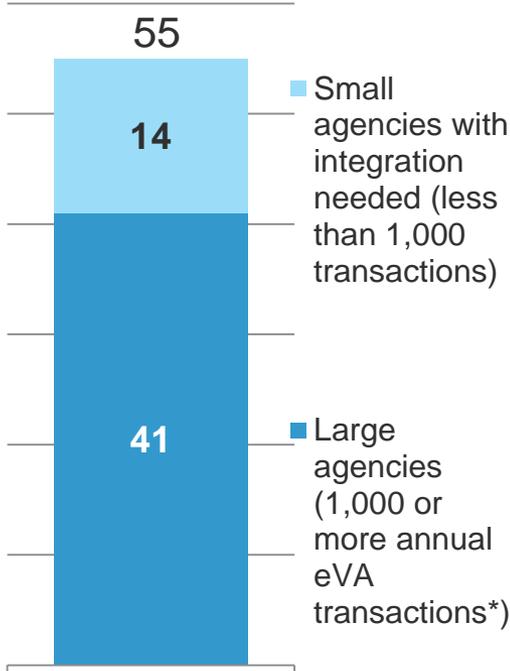
■ Materials 
 ■ MRO 
 ■ Capital equipment 
 ■ Contractors 
 ■ Services providers



Source: eVA

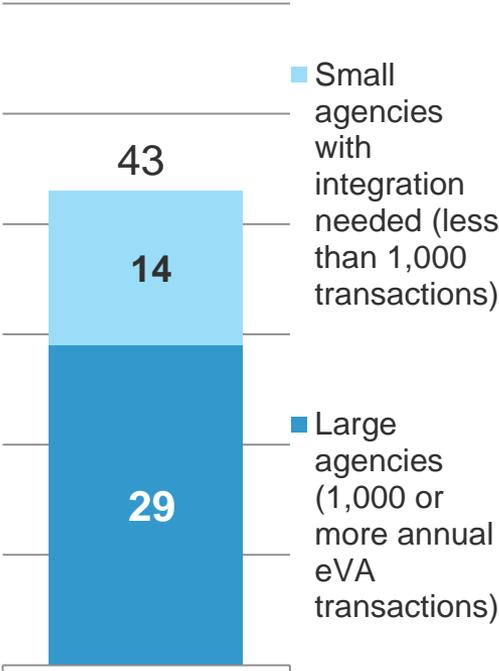
# Procure-to-pay systems integration metrics for Commonwealth of Virginia ERP systems

## CoVA Agency ERPs



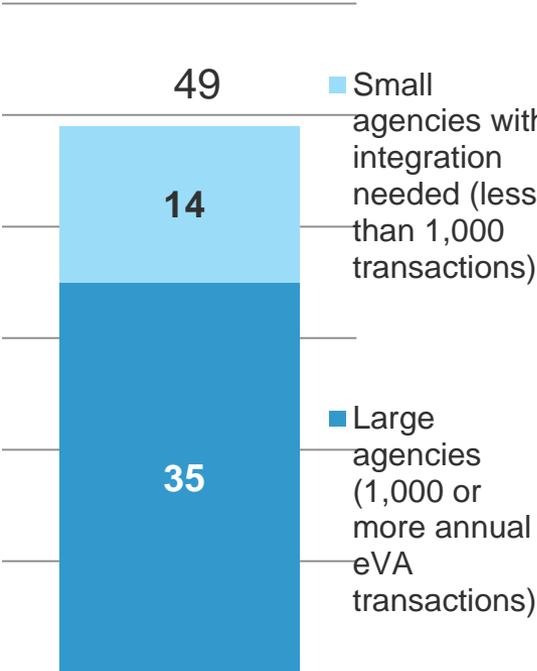
CoVA ERPs to be integrated by agency size

## CoVA ERPs to be integrated to eVA



eVA Integrations to CoVA agencies by size

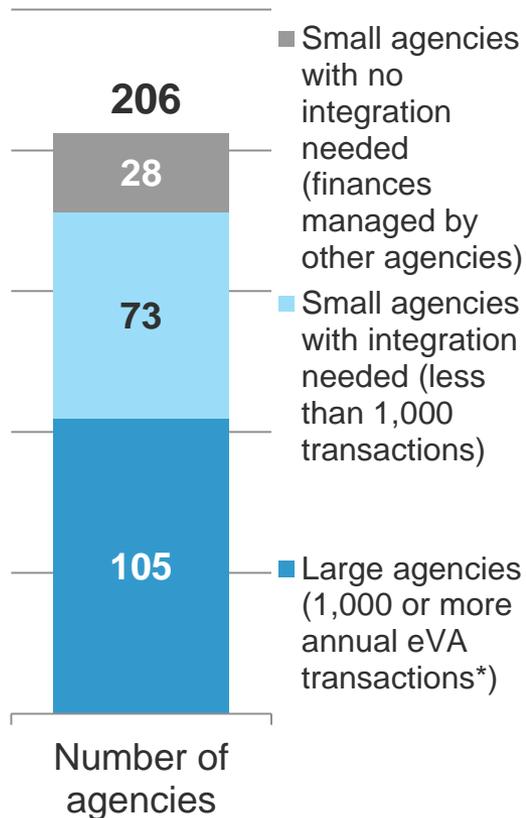
## CoVA ERPs to be integrated to Cardinal



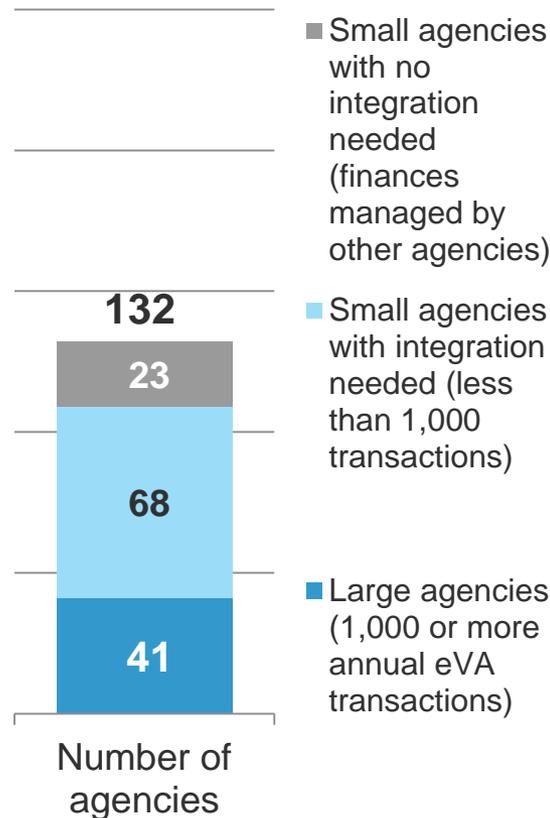
Cardinal Integrations to CoVA agencies by size

# Procure-to-pay process implementation metrics for Commonwealth of Virginia agencies

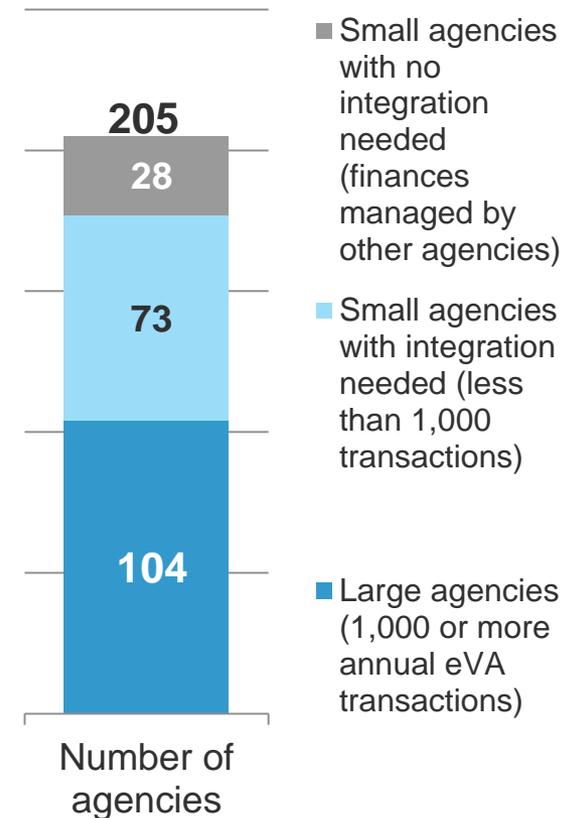
## CoVA Agencies for procure-to-pay implementation



## CoVA Agencies needing eVA implementation



## CoVA Agencies needing Cardinal implementation



# CoVA Procure-to-Pay TEI Evaluation for Cardinal

## Total Economic Impact (TEI) Financial Summary for Cardinal

Total Economic Impact (TEI)	Risk-Adjusted Estimates	Undiscounted Subtotals							Present Value (5 yr)
		Cost Category	Initial	Year 1	Year 2	Year 3	Year 4	Year 5	
(\$28.6 million)	Procurement and Catalog Software License Maintenance over 10 years	\$0	(\$32,840)	(\$32,840)	(\$98,520)	(\$98,520)	(\$98,520)	(\$361,240)	(\$259,478)
	Time, amortized over 10 years	\$0	(\$1,037,400)	(\$1,037,400)	(\$1,037,400)	(\$1,037,400)	(\$1,037,400)	(\$5,187,000)	(\$3,932,562)
	Integration with Cardinal Procurement for Eight Agencies that have real-time integration with eVA already implemented over 10 years	\$0	(\$389,188)	(\$389,188)	(\$462,025)	(\$462,025)	(\$462,025)	(\$2,164,450)	(\$1,625,026)
(\$74.4 million)	Additional one-time costs at each agency - One Time, Amortized over 10 years	\$0	(\$5,985,938)	(\$5,985,938)	(\$6,905,875)	(\$6,905,875)	(\$6,905,875)	(\$32,689,500)	(\$24,582,114)
	<b>CoVA-equivalent CoVA integration and implementation</b>	<b>\$0</b>	<b>(\$6,407,965)</b>	<b>(\$6,407,965)</b>	<b>(\$7,466,420)</b>	<b>(\$7,466,420)</b>	<b>(\$7,466,420)</b>	<b>(\$35,215,190)</b>	<b>(\$26,466,618)</b>
	Time	(\$4,336,250)	\$0	\$0	\$0	\$0	\$0	(\$4,336,250)	(\$4,336,250)
	Time	(\$553,297)	\$0	\$0	\$0	\$0	\$0	(\$553,297)	(\$553,297)
	New PeopleSoft Services Procurement and Catalog Software Maintenance and Ariba Network Fees - Annual	\$0	(\$603,518)	(\$603,518)	(\$603,518)	(\$603,518)	(\$603,518)	(\$3,017,590)	(\$2,287,808)
	New Hardware Maintenance Costs - Annual	\$0	(\$280,098)	(\$280,098)	(\$280,098)	(\$280,098)	(\$280,098)	(\$1,400,490)	(\$1,061,792)
	Procure-to-Pay Operations and CoVA Procurement Resource Costs - Annual	\$0	(\$19,330,712)	(\$3,625,000)	(\$2,825,000)	(\$2,825,000)	(\$2,825,000)	(\$31,430,712)	(\$26,375,322)
	Web Portal Development and Management Costs - One Time (Amortized) and Annual	\$0	(\$1,677,500)	(\$1,677,500)	(\$1,677,500)	(\$1,677,500)	(\$1,677,500)	(\$8,387,500)	(\$6,359,045)
	Cost of training new employees due to added turnover - annual	(\$325,375)	(\$162,688)	\$0	\$0	\$0	\$0	(\$488,063)	(\$473,273)
	<b>Total annual operating costs of full CoVA-wide integration and implementation</b>	<b>(\$5,214,922)</b>	<b>(\$23,091,916)</b>	<b>(\$7,223,516)</b>	<b>(\$6,423,516)</b>	<b>(\$6,423,516)</b>	<b>(\$6,423,516)</b>	<b>(\$54,800,901)</b>	<b>(\$45,379,349)</b>
	<b>Total CoVA Full Procure-to-Pay Costs (Risk-Adjusted) without options included</b>	<b>(\$5,214,922)</b>	<b>(\$29,499,881)</b>	<b>(\$13,631,481)</b>	<b>(\$13,889,936)</b>	<b>(\$13,889,936)</b>	<b>(\$13,889,936)</b>	<b>(\$90,016,091)</b>	<b>(\$71,845,967)</b>
	Optional: Cost to Integrate or Interface with Cardinal Procurement for Agencies/ERP Instances that don't have it with eVA already - One Time, amortized over 10 years	\$0	(\$598,719)	(\$598,719)	(\$718,463)	(\$718,463)	(\$718,463)	(\$3,352,825)	(\$2,515,718)
	Optional: Additional Finance-related Process Implementation at non-eVA Integrated Agencies - One Time, Amortized over 10 years	\$0	(\$361,350)	(\$361,350)	(\$433,620)	(\$433,620)	(\$433,620)	(\$2,023,560)	(\$1,518,334)
	Optional: eSettlement Licensing, Integration and Implementation Costs - One time, amortized over 10 years (Separate for Summary)	\$0	(\$172,500)	(\$172,500)	(\$219,375)	(\$219,375)	(\$219,375)	(\$1,003,125)	(\$750,251)
	<b>Total Costs (Risk-Adjusted) with options</b>	<b>(\$5,214,922)</b>	<b>(\$30,632,449)</b>	<b>(\$14,764,050)</b>	<b>(\$15,261,394)</b>	<b>(\$15,261,394)</b>	<b>(\$15,261,394)</b>	<b>(\$96,395,601)</b>	<b>(\$76,630,270)</b>
	Separate: Cost of Local Government Training and Added Procurement Resources - One Time, Amortized over 10 years	(\$648,340)	(\$6,204,000)	(\$6,204,000)	(\$6,204,000)	(\$6,204,000)	(\$6,204,000)	(\$31,668,340)	(\$24,166,381)
	<b>Total Costs (Risk-Adjusted) with options and Local Government Impact</b>	<b>(\$5,863,262)</b>	<b>(\$36,836,449)</b>	<b>(\$20,968,050)</b>	<b>(\$21,465,394)</b>	<b>(\$21,465,394)</b>	<b>(\$21,465,394)</b>	<b>(\$128,063,941)</b>	<b>(\$100,796,651)</b>

# CoVA Procure-to-Pay Evaluation Framework for eVA

## Total Economic Impact (TEI) Financial Summary for eVA

Total Cost Cash Flows (Risk-Adjusted Estimates)	Undiscounted Subtotals						Present Value	
	Cost Category	Initial	Year 1	Year 2	Year 3	Year 4		Year 5
Total Implementation Costs for VDOT to implement eVA -- One Time, amortized over 10 years	\$0	(\$31,625)	(\$31,625)	(\$31,625)	(\$31,625)	(\$31,625)	(\$158,125)	(\$119,884)
New Process implementation costs - One Time, Amortized over 10 years	\$0	(\$214,500)	(\$214,500)	(\$214,500)	(\$214,500)	(\$214,500)	(\$1,072,500)	(\$813,124)
<b>Amortized costs of eVA-equivalent integration and implementation</b>	<b>\$0</b>	<b>(\$246,125)</b>	<b>(\$246,125)</b>	<b>(\$246,125)</b>	<b>(\$246,125)</b>	<b>(\$246,125)</b>	<b>(\$1,230,625)</b>	<b>(\$933,007)</b>
Incremental Training - One Time	(\$1,102,970)	(\$1,825)	(\$913)	\$0	\$0	\$0	(\$1,105,709)	(\$1,105,384)
CGI Licensing/SaaS Cost for eVA - Annual	\$0	(\$13,425,156)	(\$13,425,156)	(\$13,425,156)	(\$13,425,156)	(\$13,425,156)	(\$67,125,780)	(\$50,891,904)
CoVA Management Costs for eVA - Annual	\$0	(\$2,280,556)	(\$2,280,556)	(\$2,280,556)	(\$2,280,556)	(\$2,280,556)	(\$11,402,780)	(\$8,645,102)
<b>Total annual operating costs of full eVA-equivalent integration and implementation</b>	<b>(\$1,102,970)</b>	<b>(\$15,707,537)</b>	<b>(\$15,706,625)</b>	<b>(\$15,705,712)</b>	<b>(\$15,705,712)</b>	<b>(\$15,705,712)</b>	<b>(\$79,634,269)</b>	<b>(\$60,642,389)</b>
<b>Total eVA-Equivalent Costs (Risk-Adjusted) without expanded integration and invoicing</b>	<b>(\$1,102,970)</b>	<b>(\$15,953,662)</b>	<b>(\$15,952,750)</b>	<b>(\$15,951,837)</b>	<b>(\$15,951,837)</b>	<b>(\$15,951,837)</b>	<b>(\$80,864,894)</b>	<b>(\$61,575,397)</b>
Optional: New Data Integration/Interface Costs - One Time, amortized over 10 years	\$0	(\$687,225)	(\$687,225)	(\$687,225)	(\$687,225)	(\$687,225)	(\$3,436,125)	(\$2,605,123)
Optional: New Data Finance Process Implementation Costs - One Time, amortized over 10 years	\$0	(\$103,345)	(\$103,345)	(\$103,345)	(\$103,345)	(\$103,345)	(\$516,725)	(\$391,759)
Optional: Implementing invoicing - One Time, amortized over 10 years	\$0	(\$330,000)	(\$330,000)	(\$330,000)	(\$330,000)	(\$330,000)	(\$1,650,000)	(\$1,250,960)
<b>Total CoVA Full Procure-to-Pay Costs (Risk-Adjusted) with options included</b>	<b>(\$1,102,970)</b>	<b>(\$16,970,887)</b>	<b>(\$16,969,975)</b>	<b>(\$16,969,062)</b>	<b>(\$16,969,062)</b>	<b>(\$16,969,062)</b>	<b>(\$85,951,019)</b>	<b>(\$65,823,239)</b>
Total Revenue from Supplier Fees - Annual	\$0	\$9,818,867	\$9,818,867	\$9,818,867	\$9,818,867	\$9,818,867	\$49,094,335	\$37,221,231
<b>Total Costs (Risk-Adjusted) with invoicing and Revenue from Supplier Fees</b>	<b>(\$1,102,970)</b>	<b>(\$7,152,020)</b>	<b>(\$7,151,108)</b>	<b>(\$7,150,195)</b>	<b>(\$7,150,195)</b>	<b>(\$7,150,195)</b>	<b>(\$36,856,684)</b>	<b>(\$28,602,008)</b>

Note: Empty rows are included so the cost categories line up with the Cardinal cost estimates on the previous slide

# CoVA Procure-to-Pay TEI Evaluation for Cardinal

## Total Economic Impact (TEI) Financial Summary Notes for Cardinal

NPV is calculated over a 5-year period with a 10% discount rate. Note that these estimates include all procurement costs other than costs already included in the Cardinal financial rollout (e.g., the license cost for some procurement modules, not just “net new” costs).

In addition to the initial implementation and integration, a smaller procurement upgrade is included, in year 3, and is estimated to cost about **\$4.9 million**. This upgrade is amortized over 5 years, instead of 10, since upgrades extend the life of a current asset not create a new one.

Also included in this model is the rollout/ramp-up time it would take to hand over systems from eVA to Cardinal. This has been estimated to be a one-year period (though could be longer), which means CGI fees and DGS resource costs would need to be allocated for that time, as well as additional Cardinal resources to support efforts such as getting vendors updated in the new system with electronic signature capability.

Local government resource costs are included in this model – while not a direct cost to the Commonwealth, it would be a cost that local governments would need to take on. If local government resource costs are not included, the risk-adjusted five-year NPV of Total Costs (including amortization) would be **\$76.6 million**.

With amortization, the total initial cost (including all options and local government resources) is **\$5.9 million**; the annual cost is **\$21.4 to 36.8 million** (the larger value, in year 1, includes the overlapping CGI fees).

Since the cash flow is over 5 years, and most up-front implementation costs have been amortized over 10 years, only the first 5 years of most initial costs are included. Without amortization, the total initial cost (including all options) would be **\$82.4 million**; and the annual costs are between **\$6.4 million** or **\$29.1 million** (depending on ramp-up time and whether local government costs are included).

The five-year NPV of the un-amortized cash flow, including options and the upgrade in year 3, is **\$145.9 M**.

# Forrester's CoVA Procure-to-Pay TEI Framework for Cardinal

## TEI Model Notes for Cardinal

Section	Source Notes
New SW Licenses	Based on Cardinal's current PeopleSoft license agreement, estimates were evaluated for 2 additional modules – Catalog and Services Procurement. Source File: "1. Cardinal Model Source Worksheets"
New HW Costs	Based on Cardinal's current hardware costs for procurement (using the procurement = 1/6 total from Cardinal team). The ratio of new software costs was used to estimate additional hardware costs.
Integration Costs	DGS provided ERP system counts, which means multiple agencies on a single ERP instance can take advantage of a single integration process. Furthermore, additional integrations for a similar ERP (i.e., a second Banner instance) were estimated at a lower cost than the first. The costs of each integration was based on Cardinal's total cost (using the 1/6 rule for procurement) and estimating the CoVA and Accenture time required for an additional ERP integration. Source "2a. Cardinal Integration Cost Estimates" and "2b. Cardinal ERP Instance Counts with Integration Costs"
Implementation Costs	In addition to integration, new processes based on the new system will need to be designed and implemented. These costs are applied to each agency, so are separate from integration.

# Forrester's CoVA Procure-to-Pay TEI Framework for Cardinal

## TEI Model Notes for Cardinal (continued)

Section	Source Notes
Training and Ramp-up Time	Calculated using rough, conservative estimates based on total buyers, users and transaction data from DGS
SW and HW maintenance	Based on new software and hardware costs above, similar estimates were calculated, software based on Oracle's 27% software maintenance contract, and hardware extrapolated from Cardinal estimates
New Resource Costs	Based on resource counts from DGS, similar estimates were calculated for Cardinal (based on its needs, such as no billing resources, but extra vendor support). Source: "1. Cardinal Model Source Worksheets"
Portal	Based on estimates provided by CGI, the cost of developing a Web portal similar to eva.virginia.gov, as well as the annual management of that site have been included. It is assumed a similar site would need to be developed. Source File: "1. Cardinal Model Source Worksheets"
Local Gov't	Based on Local Gov't organization and user counts from DGS, assume 25% more resources would need to be hired (though this estimate is probably low). Source File: "1. Cardinal Model Source Worksheets"
Training	A rough estimate of an incremental 10% turnover caused by the switch to Cardinal, to estimate additional new hire training costs.

# CoVA Procure-to-Pay Evaluation Framework for eVA

## Total Economic Impact (TEI) Financial Summary for eVA

NPV is calculated over a 5-year period with a 10% discount rate. The procurement analysis comparison includes planning and preparation, so it is assumed that any implementation would take place starting in 2016 or 2017 (after the current CGI contract has expired). Also, all costs associated with running a state-wide procurement system are included, not just “net new” costs. Keeping the eVA solution includes costs associated with adding real-time or batch integration to all ERP implementations for agencies that don’t already have it, and providing functionality for those like VDOT with special requirements. These estimates include CGI license fees and CoVA operations cost.

Since they are a revenue stream external from CoVA's budget (or any other government agency in Virginia), Supplier Fees have been included as a consideration. The portion that comes directly from suppliers, makes up about 80% of all eVA usage fees, and offsets the cost of eVA considerably – so the net CGI fee that CoVA pays from it’s own pocket is much less. At this time there is no supplier-source funding model that has been legislated for Cardinal; however that is possible, so while supplier fees are highlighted, they are not part of the top-level cost summaries. If supplier fees were included, the revised total costs for eVA (5-year net present value, risk adjusted, with some costs amortized, and including all integration options) would be **\$25.9 million**.

If supplier fees are not included (for example, if the legislature approves a similar supplier fee for Cardinal), the risk-adjusted five-year NPV of Total Costs with some amortized costs and without supplier fees is **\$65.8 million**.

Note that while the cash flow is over 5 years, most up-front implementation costs have been amortized over 10 years (but only the first 5 are included). Without amortization and including options, the total initial cost would be **\$14.9 million**; and the annual cost would be **\$15.7 million** (without supplier fees) or **\$5.1 million** (including supplier fees).

The five-year net present value of the un-amortized cash flow, including options but not including supplier fees, is **\$74.4 million**.

# Forrester's CoVA Procure-to-Pay TEI Framework for eVA

## TEI Model Notes for eVA

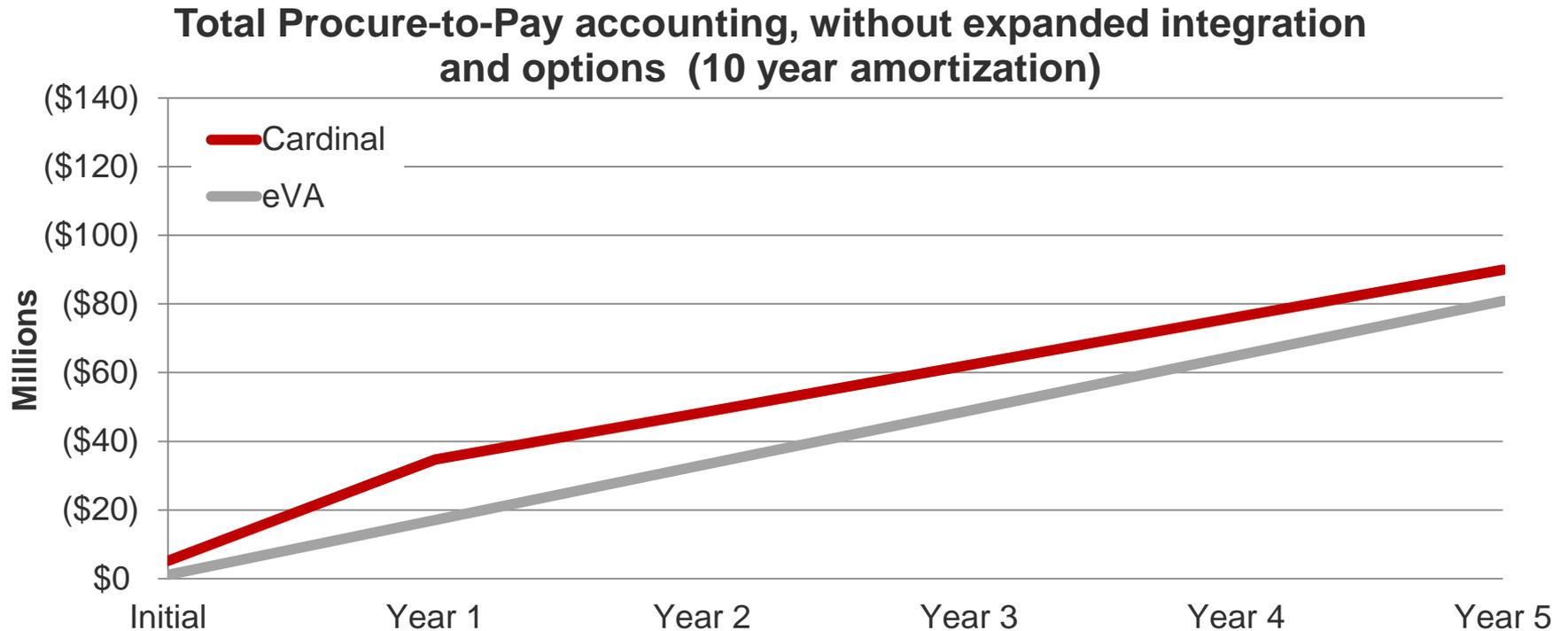
Section	Source Notes
New Integration Costs	<p>While eVA is in use, many agencies do not integrate or interface with their ERP system. For comparison with Cardinal this is a requirement. DGS provided estimates of implementation costs (based on VCCS's and multiple Banner integration projects) and ERP instances. Large agencies assumed to need integration; small agencies assumed to need batch interface. Source: "A. eVA ERP Instance Counts with Integration Costs"</p>
New Implementation Costs	<p>For any agency not already integrated or interfacing data from their ERP to eVA, in addition to integration/interface, new processes will need to be implemented. VDOT provided estimates of implementation costs, for each large and small agency. Source: VDOT integration and implementation cost estimates; like Cardinal, 1/2 of these estimates are assumed to be associated with implementation.</p> <p>NOTE: eInvoicing is split out to allow comparison with or without the module Source: "C. Forrester count of CoVA agencies by integration requirements V3"</p>

# Forrester's CoVA Procure-to-Pay TEI Framework for eVA

## TEI Model Notes for eVA

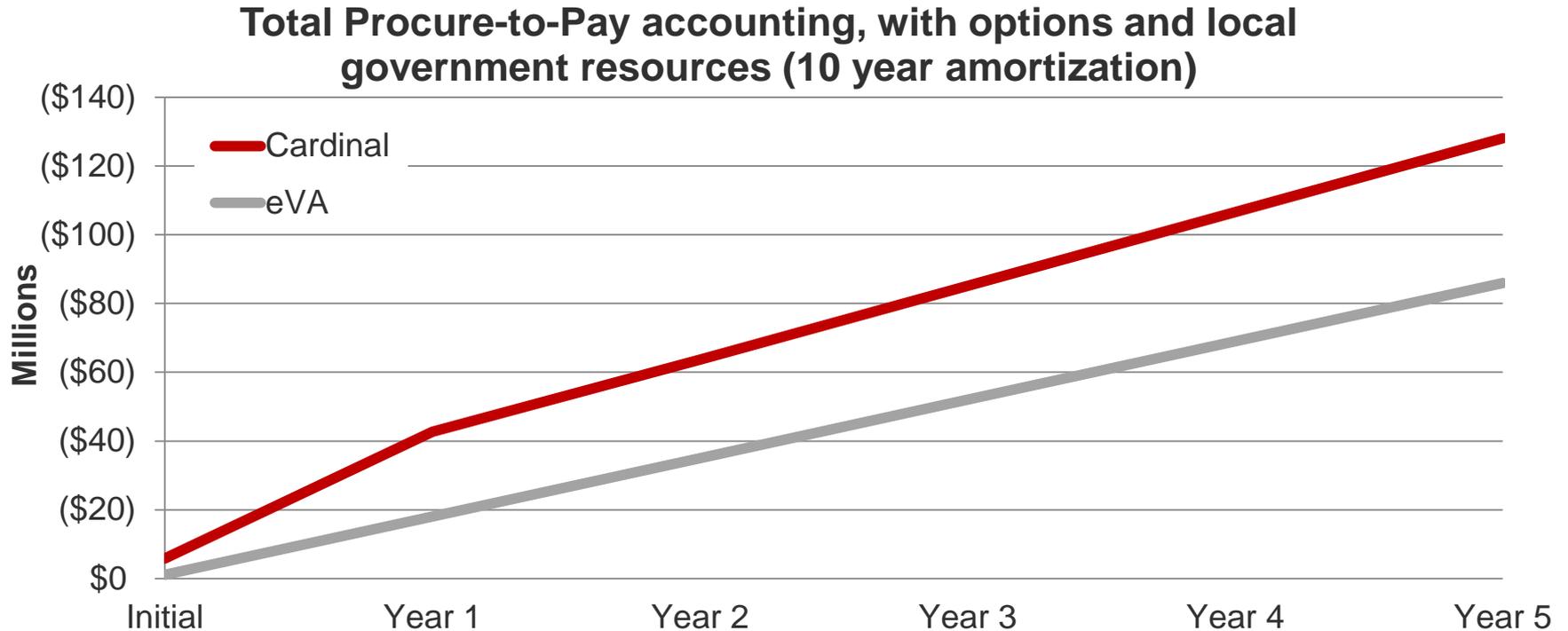
Section	Source Notes
VDOT Implementation Costs	VDOT is not fully using eVA at this time, so some implementation costs are expected, as well as training (in a later section of the model)
CGI and CoVA annual costs and Supplier fees	From DGS, the latest, largest annual CGI license and CoVA operations costs are used to estimate costs over the next 5 years. Because this is an outside-to-CoVA procurement revenue stream, supplier fees (but not agency fees) are included. Source: "B. Metrics-Submission-to-Forrester" NOTE: except where specifically listed, supplier fees are not included in most summary totals. Also, the Ariba network fees paid to CGI, are simply a pass-through payment. As such, they are subtracted from both CGI fees and supplier fee revenue.
eInvoicing	Using estimates from DGS, 20 agencies (larger agencies, constituting a majority of buyers and suppliers) would implement eInvoicing.

# Budget Analysis of Implementation and Integration (With Options; Without Other Considerations – 10 year Amortization)



Without options or other considerations included, and looking at amortized costs for accounting purposes, Cardinal is more expensive over 5 years but the inflection point (as after year 2 Cardinal becomes cheaper on an annual basis compared to eVA) is estimated to be around year 12 or later.

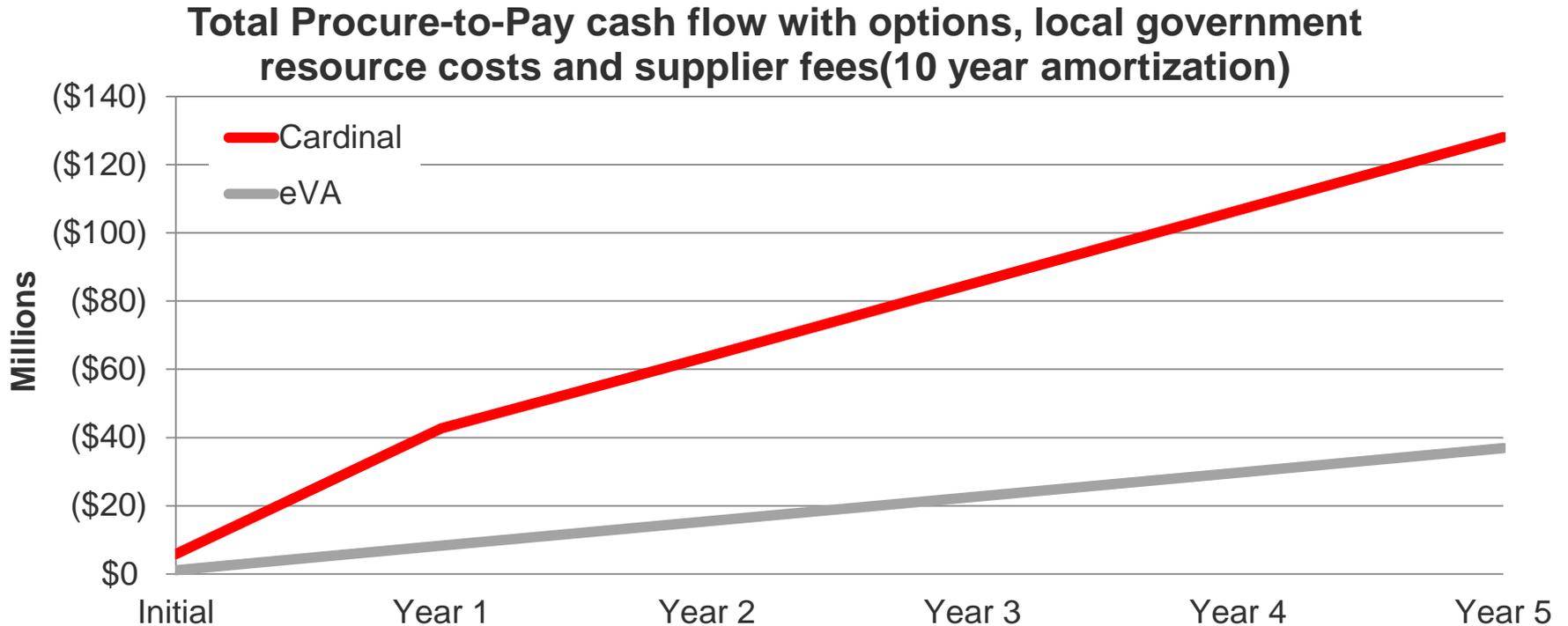
# Budget Analysis of Implementation and Integration (With Options; Without Other Considerations – 10 year Amortization)



The current eVA implementation include local government support for contract access (a legal requirement) and electronic transaction functionality. To estimate a similar result for Cardinal, for this model it's assumed that many agencies will need to hire additional staff, who would coordinate with CoVA and suppliers to ensure information gets to suppliers – however electronic transactions would no longer be available, and may need to be replaced at additional cost.

At this point there is no future time when Cardinal annual costs become less expensive than eVA.

# Budget Analysis of Implementation and Integration (With Options and Other Considerations – 10 year Amortization)



Also, eVA is funded by both agency fees (not included, since that's just a transferred CoVA cost) and supplier fees (which are included, as an outside-CoVA revenue stream).

Cardinal could choose to add supplier fees to their model, but as it's not in place yet and it's assumed that a) changing legislation would take significant time and effort; b) implementing a supplier fee would also require significant overhead to set up (or transfer from eVA) a billing system – and as shown on the previous slides (that don't include supplier fees), in most cases it won't change the cost comparison.

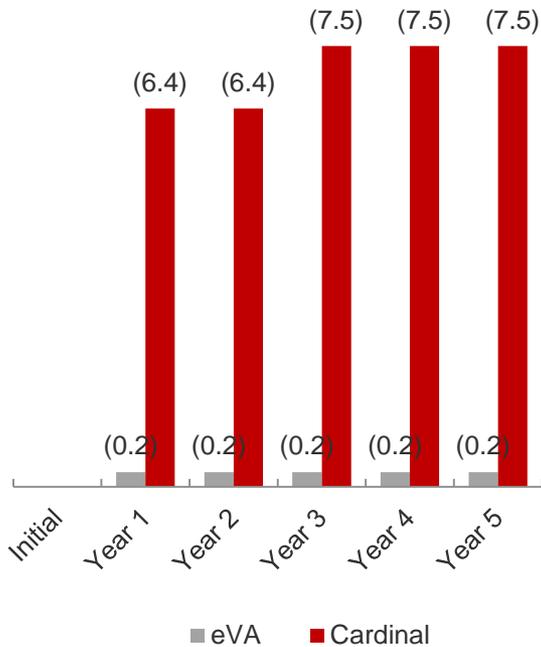
# CoVA's current eVA and CGI expenses and how our analysis treats them after initial investments

Current state	eVA in TEI Model	Cardinal in TEI Model
<b>CGI costs (\$14.4 million/year)</b>	<b>CGI costs (\$13.4 million/year)</b>	<b>Equivalent costs (\$4.4 million/year)</b>
CGI profit (est. \$1 million)	CGI profit (est. \$1 million)	
Procurement operations (hardware and software maintenance and ops) (est. \$3.5 million)	Procurement operations (hardware and software maintenance and ops) (est. \$3.5 million)	Procurement operations (hardware and software maintenance and ops) (\$3 million)
Ariba/CGI amortized software license and maintenance fees (est. \$3.5 million)	Ariba/CGI amortized software license and maintenance fees (est. \$3.5 million)	Added PeopleSoft modules amortized license and maintenance fees (\$0.3 million)
Enhancements and improvements (est. \$5.4 million)	Enhancements and improvements (est. \$5.4 million)	Enhancements and improvements (\$0.6 million)
Ariba Network supplier fees paid by CGI (est. \$1 million)	Offset by supplier fees received by CoVA	Ariba Network <u>buyer</u> fees as PeopleSoft user (\$0.5 million)
<b>CoVA costs (\$4.5 million/year)</b>	<b>CoVA costs (\$2.3 million/year)</b>	<b>CoVA costs (\$2.2 million/year)</b>
DGS purchasing policies and contracts team (\$3.2 million)	Excluded from analysis because would continue anyway	Excluded from analysis because would continue anyway
eVA help desk, supplier billing, supplier enablement, and agency liaison team (\$2.3 million)	eVA help desk, supplier billing, supplier enablement, and agency liaison team (\$2.3 million)	Cardinal help desk, supplier enablement, and agency liaison team (\$2.2 million)

# Year by year on an eVA-equivalent, Cardinal is much more expensive in year 1, but eVA costs \$2.4 million more after

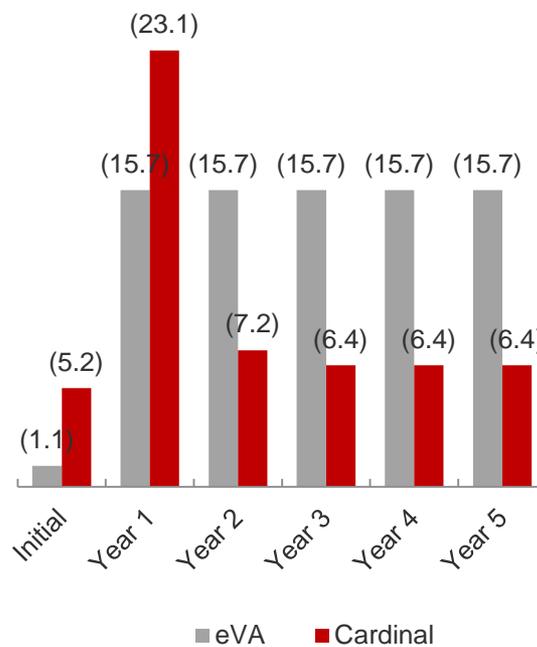
**Cardinal has higher annual amortized investment costs**

Annual amortized investment costs (\$ millions)



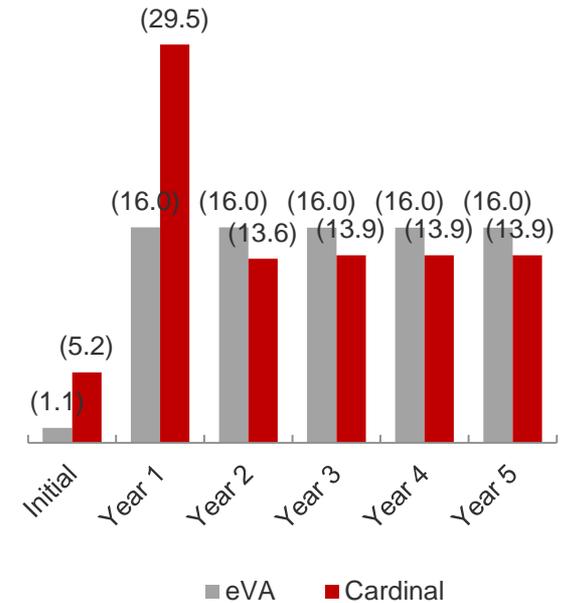
**After year 1, eVA has higher annual operating costs**

Annual operating costs (\$ millions)



**In total, eVA has slightly higher annual costs than Cardinal**

Annual total costs (including amortized investments) (\$ millions)



Note: Annual costs are risk-adjusted estimates