CAI's IT METRICS & PRODUCTIVITY INSTITUTE



# *CIO's Guide to Risk Management*

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# Case Study

## Pa. Department of Transportation

## Application Management and Outsourcing

# PennDOT Introduction

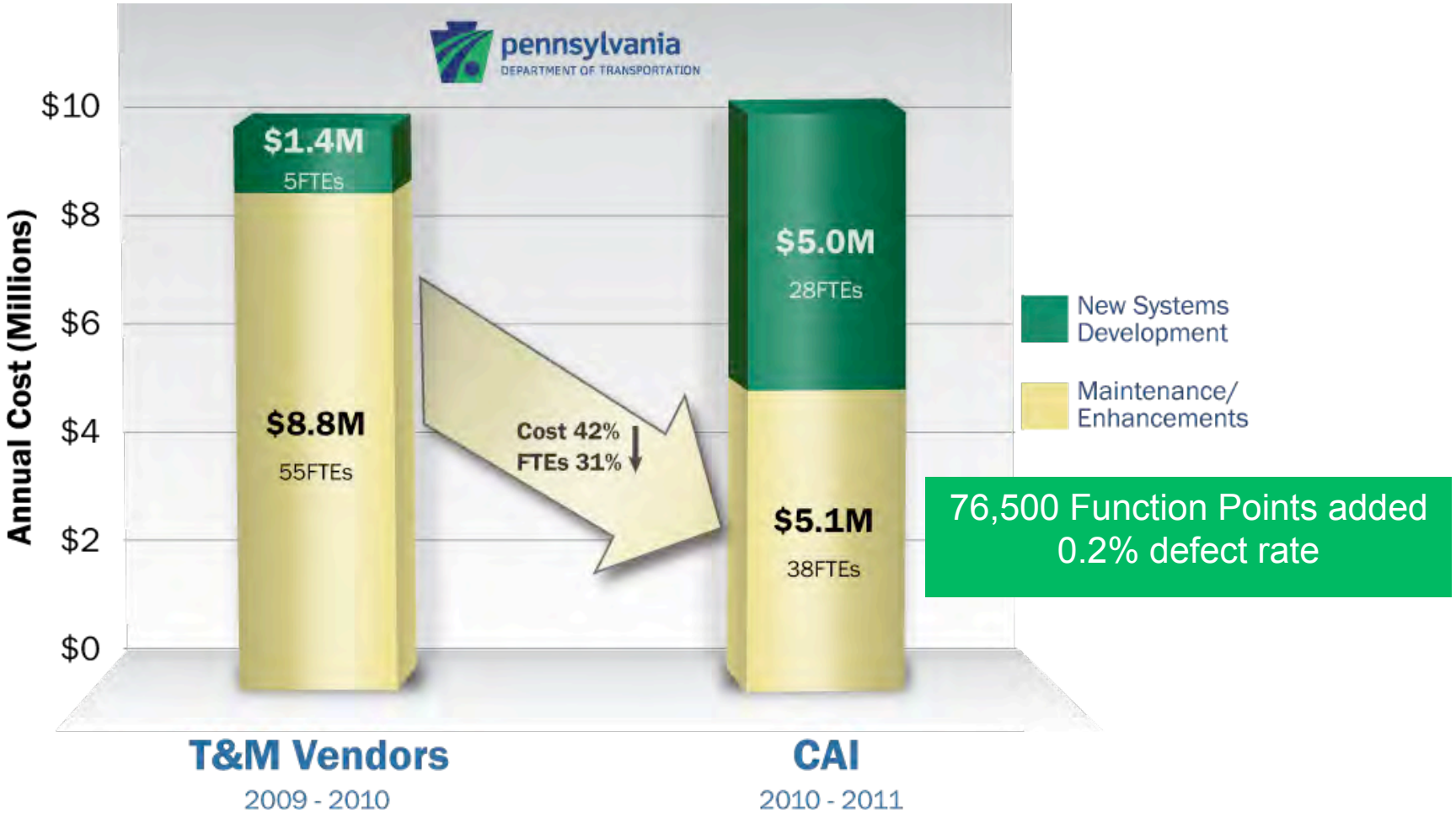
- **Provides Transportation Management for the Commonwealth of Pennsylvania**
  - ✓ Created in 1970 to streamline transportation management
  - ✓ Annual budget of over $6 bn of state and federal funds
  - ✓ Total 121,000 miles of state and local highways
  - ✓ Total 55,000 state and local bridges
  - ✓ Manage 40,000 miles of highway and 25,000 bridges
  - ✓ 12,000 employees
  - ✓ 11.3 Million vehicle registrations
  - ✓ 8.7 Million driving licenses
  - ✓ Safety and Emissions control inspection programmes

# Commonwealth Directive

*"Do more with less"*

- **Commonwealth Budget 2011-12**
  - ✓ Balance budget with no tax increases
  - ✓ Refocus investment in core functions of government
  - ✓ Reduce general fund budget by 4% ($1.17 billion)
  - ✓ State spending overall reset to near 2008-09 levels
  - ✓ State agencies are directed to focus on delivery and reduce administrative overhead

# Success




76,500 Function Points added
0.2% defect rate

# Scenario:

# Managing Project Risks

# Risk Analysis: Why Projects Fail?

**Standish Chaos Report**

| | |
|---|---|
| • Incomplete Requirements | 13.1% |
| • Lack of User Involvement | 12.4% |
| • Lack of Resources | 10.6% |
| • Unrealistic Expectations | 9.9% |
| • Lack of Executive Support | 9.3% |
| • Changing Requirements | 8.7% |
| • Lack of Planning | 8.1% |
| • Didn't Need It Any Longer | 7.5% |
| • Lack of IT Management | 6.2% |
| • Technology Illiteracy | 4.3% |
| • Other | 9.9% |

# The solution begins with accountability

- Who is responsible for managing project risk?
- Who is responsible for project success?
- Who is to blame for project failures?
- Does the IT project team have unrealistic expectations of the business?
- Does the business have unrealistic expectations of the IT project team?

# Project Risks and Impacts

- Failure to manage scope and requirements results in rework and increased costs
- Insufficient quality management increases the need for defect correction and increases ongoing support costs
- Scheduling gaps causes under-utilized resources
- Lack of automated tools, models, templates, or knowledge increases risks and costs

# Mitigating Project Risks

- Cleary defining Requirements minimizes changes and re-work
- Establish an achievable Scope based on available resources, budgets, and expected completion date
- Plan the project to avoid Resource downtime and minimize schedule disruptions
- Identify Issues early to prevent problems and avoid the resulting re-work

# Will you be successful?

Effective Risk Management answers this question

- Required Information
  - Timely and accurate project performance data
  - Opinions/feedback from all participants
  - Status of all open issues
- Risk Analysis
  - Is the project on-time and on-budget for completed tasks?
  - Is the project on-time and on-budget for active tasks?
  - Has anything changed (scope, resource availability, customer satisfaction, levels of overtime)?
  - What is the reason and impact of the change?
  - What is the impact of open issues?

# Information Requirements

- Stakeholder and Team Communications
  - Requirements
  - Status
  - Issues/Concerns
- Project Performance data
  - Actual effort/cost vs. estimates
  - Total Changes and the impact of changes
  - Total Re-Work by reason (requirements changes vs. errors)
  - Lost time due to schedule disruptions

# Impediments

- Poorly defined roles and lack of ownership and accountability
- Lack of tools to facilitate communication and compliance
- Failure to define success criteria
- Lack of visibility resulting from inadequate project tracking or not enough detail in the project plan
- Insufficient control from a lack of process or enforcement
- Failure to manage change
- Reactive culture that fails to anticipate and mitigate risks and rewards heroic recovery efforts

# Solutions

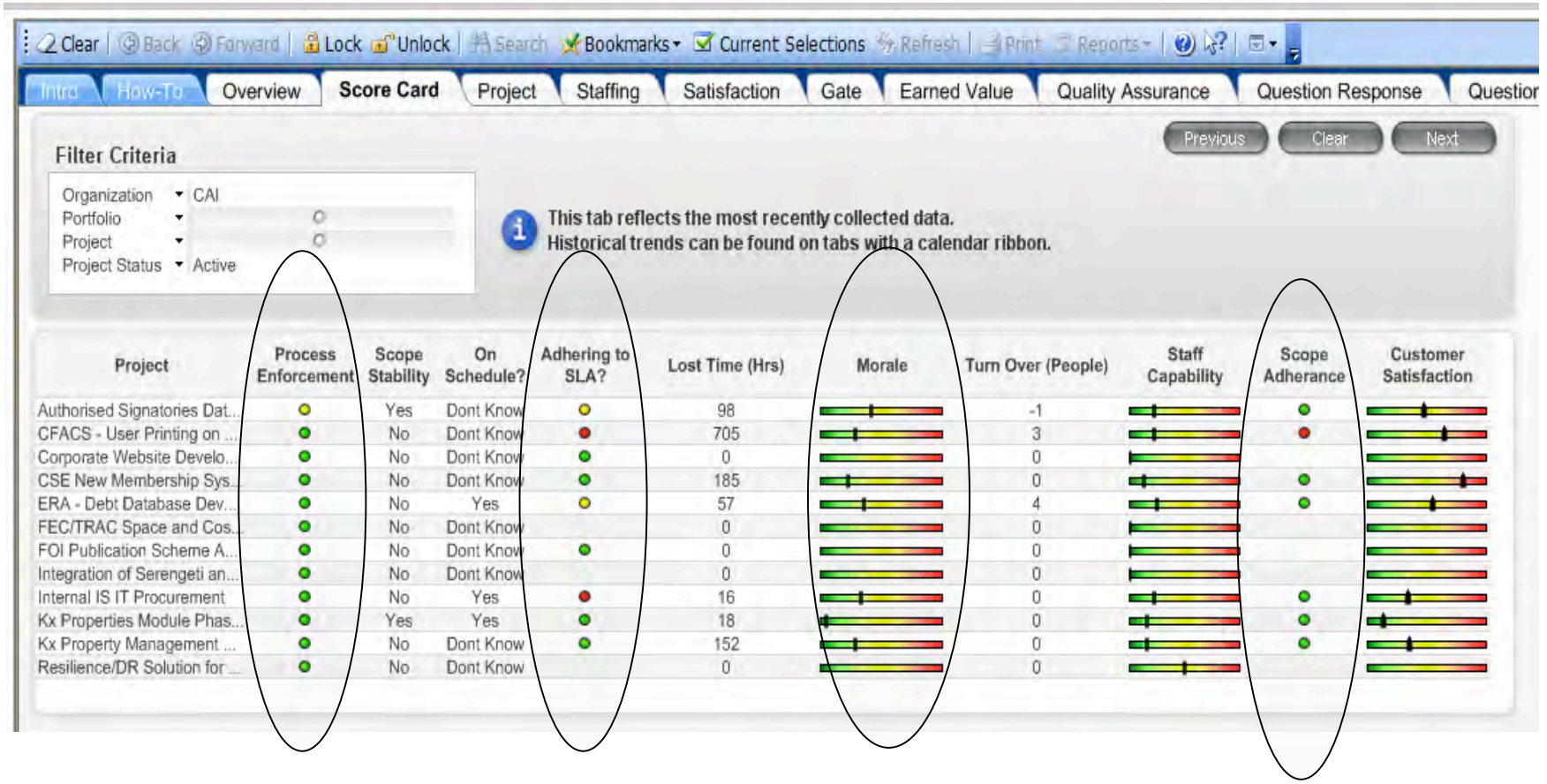
- Improve communications with all project participants without disrupting progress
- Ensure compliance with processes
- Collect and analyze project performance metrics to identify trends and new risks
- Efficient staff orientation to the project and the management processes to enable agile staffing
- Establish accountability

# How does CAI succeed?

- Repeatable Processes are used to manage requirements, scope, schedules, risk, issues, changes, quality, and resources
- Tracer Service Management Tool provides visibility (metrics) and status into all assigned activities across projects and support
- Automated Project Office Answers the question "Will we succeed?"
  - Early identification of risks by conducting project health assessments to analyze project performance metrics and surveys of participants and stakeholders
  - Validates compliance with processes

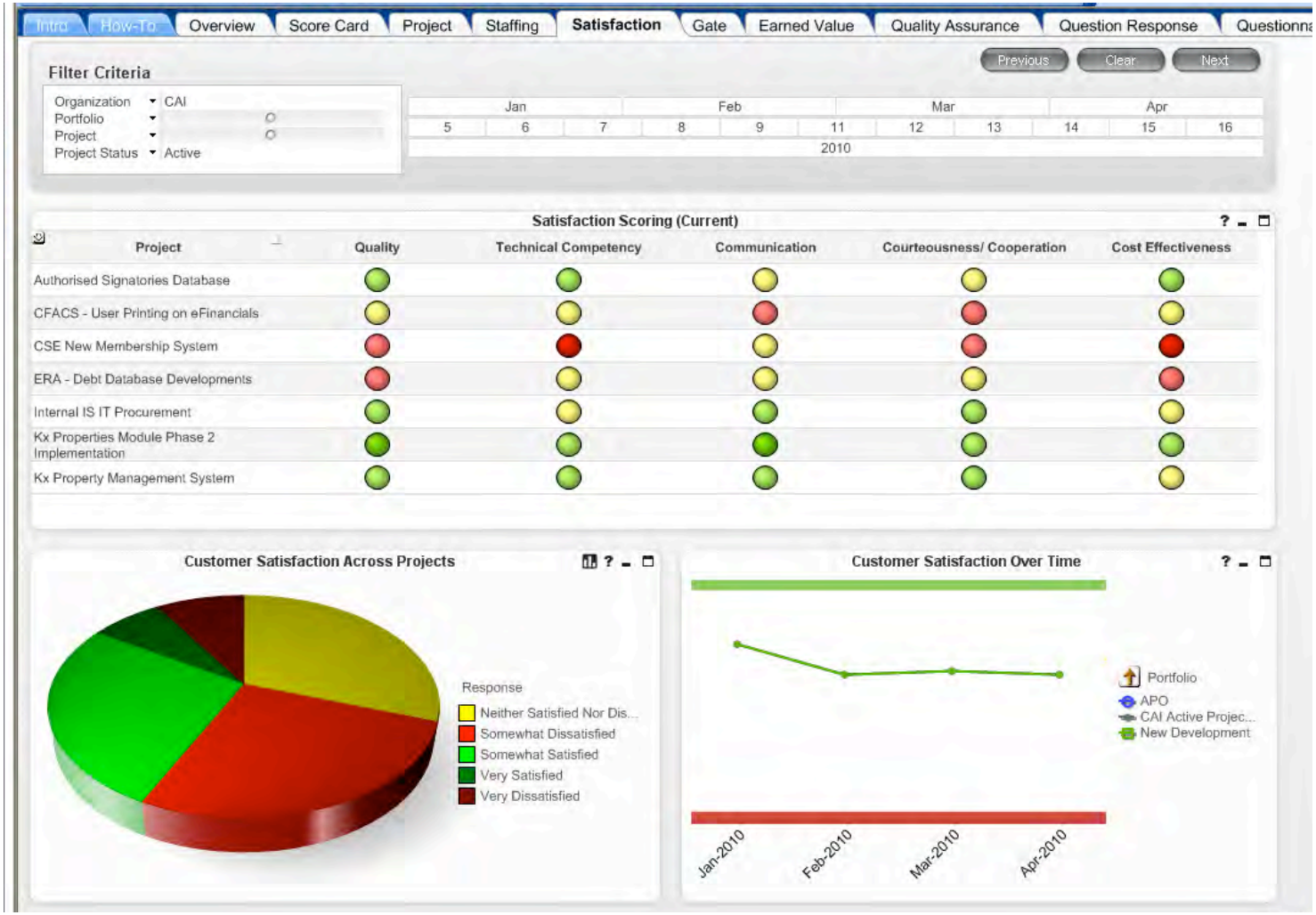
# Automated Project Office

## Visibility of Issues



# Automated Project Office

## Visibility of Issues



# How can CAI help you?

- Fixed price Application Development services
- Application Support Outsourcing to allow your staff to work on projects
- Project Management and Transformation consulting to improve effectiveness
- Automated Project Office tool to enable a rapid project office implementation
- ITMPI – IT Metrics and Productivity Institute provides access to resources and knowledge from world-renowned experts in various fields

# Thank You.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Orchestrated Knowledge
Ethical Consulting Guaranteed