# Summary

After decades of investments in information technology, running into billions of dollars, governments are largely unable to convincingly demonstrate a return on investment that is widely understood or based upon well-grounded measures. Nevertheless, most agree that government has been dramatically changed by information technology (IT) and many programs and services are believed to be more effective and less expensive as a result. Unfortunately, it remains difficult to confirm those beliefs due to the lack of widely accepted standards or methods for public sector return on investment (ROI) analysis. This leaves governments without the kind of "bottom line" information that could reveal the value of IT investments across all kinds of programs and help guide new investments. What is needed is a way of doing "Public ROI" analysis that meets the special needs of the government sector. Public ROI analysis must account for both costs and returns in social, political, and economic terms that are broader and softer than the hard financial measures used in business. Of course, financial measures should also be used in government, but they seldom represent the full range of returns generated from public investments in IT.

The purpose of this project is to develop new methods for defining, measuring, and communicating public returns from information technology (IT) investments in the government sector and to offer government officials recommendations for using these methods in planning and decision making.

Publications & Results

Practical Guides (2)
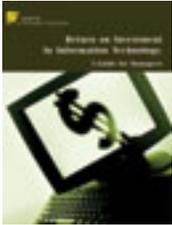
Return on Investment In Information Technology: A Guide for Managers
Sun, 01 Aug 2004

New information technology (IT) systems are serious, and potentially risky, investments for government agencies and nonprofit organizations. This guide is designed to help public sector managers better understand how a return on investment (ROI) analysis can take some of that risk out of their next IT investment.

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Making Smart IT Choices: Understanding Value and Risk in Government IT Investments
Wed, 01 Apr 2004

IT innovation is risky business in every organization. In the complex public sector environment, these risks are even greater. This handbook is designed to help any government manager evaluate IT innovations before deciding (with greater confidence) to make a significant investment.

Why evaluate information technology (IT) choices? Because IT innovation is risky business in every organization. The public policy choices and public management processes that are part of government make it an especially difficult environment for IT managers. These layers of complexity present a daunting challenge to public managers who are responsible for choosing, funding, and building IT innovations.

Government managers need to evaluate IT choices because they are among the most complex and expensive decisions they are expected to make.

There are three ways to mitigate the risks inherent in these complex decisions: thoroughly understand the problem to be solved and its context, identify and test possible solutions to the problem, evaluate the results of

those tests against your service and performance goals. This handbook is designed to help any government manager follow a well-tested methodology for evaluating IT innovations before deciding (with greater confidence) to make a significant investment.

Reports and Working Papers (6)
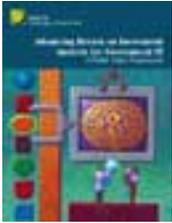
Advancing Return on Investment Analysis for Government IT: A Public Value Framework
Wed, 25 Oct 2006

This white paper provides an analysis process that starts with a high level view of the IT investment and then drills down through successive steps to identify the specific measures and methods that will reveal and document public value. The assessment can be tailored to the size and nature of a particular investment decision. The framework is broad in scope so that it can be applied to virtually any government IT investment – from simple Web sites to government-wide information systems and architectures.

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In addition to this white paper, CTG developed five case study reports:

1. The Austrian Federal Budgeting and Bookkeeping System – Federal Government of Austria's Enterprise Resource Planning (ERP) implementation to standardize the federal government's budgeting and bookkeeping processes.
2. The Commonwealth of Pennsylvania's Integrated Enterprise System – Commonwealth of Pennsylvania's ERP implementation to put in place the technical infrastructure and enterprise standards for core administrative functions.
3. The Government of Israel's Merkava Project – Government of Israel's ERP implementation to restructure the financial, logistics, and human resource components of governmentwide administration.
4. Service New Brunswick – A multi-channel "single window" citizen access to government services in New Brunswick, Canada.
5. The Washington State Digital Archives – The State of Washington's investment in digital archiving for government records to provide collection, preservation, and access to records of enduring legal and historical significance.

Service New Brunswick (Case Study)
Tue, 12 Sep 2006

Service New Brunswick was launched in a time of high pressure from citizens in New Brunswick, Canada for improved service delivery. Today it serves the province through its award winning service delivery model, and also and maybe more importantly in the long run, through its innovations in economic development.

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The Austrian Federal Budgeting and Bookkeeping System (Case Study)
Tue, 12 Sep 2006

The goal of the Austrian Federal Budgeting and Bookkeeping System project was to redesign and integrate the electronic workflow of the federal government's budget and bookkeeping processes. The strategy they chose was to implement a single Enterprise Resource Planning (ERP) software standard throughout the federal government, along with the adoption of necessary legal authority.

The Commonwealth of Pennsylvania's Integrated Enterprise System (Case Study)
Tue, 12 Sep 2006

The Commonwealth of Pennsylvania's Integrated Enterprise System Enterprise Resource Planning (ERP) software implementation put in place the technical infrastructure and enterprise standards for core government administrative functions with improved public value.

The Government of Israel's Merkava Project (Case Study)
Tue, 12 Sep 2006

The Government of Israel's Merkava Project is an effort to restructure the financial, logistics, and human resource components of government-wide administration into an integrated Enterprise Resource Planning (ERP) system. Merkava is also part of a comprehensive eGovernment initiative that includes five layers of new technologies and operational systems for enhanced internal operations and improved benefits and services to citizens.

The Washington State Digital Archives (Case Study)
Tue, 12 Sep 2006

Washington State's investment in digital archiving for government records provides a highly focused and successful example of pursuing public value through information technology.

Journal Articles and Conference Papers (2)

Open Government and E-Government: Democratic Challenges from a Public Value Perspective
June 12, 2011

This paper considers open government (OG) within the context of e-government and its broader implications for the future of public administration. It argues that the current US Administration's Open Government Initiative blurs traditional distinctions between e-democracy and e-government by incorporating historically democratic practices,

now enabled by emerging technology, within administrative agencies. The paper considers how transparency, participation, and collaboration function as democratic practices in administrative agencies, suggesting that these processes are instrumental attributes of administrative action and decision making, rather than the objective of administrative action, as they appear to be currently treated. It proposes alternatively that planning and assessing OG be addressed within a "public value" framework.

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Measuring Return on Government IT Investments
Fri, 27 Oct 2006

Based on findings from CTG's Advancing Return on Investment Analysis for Government IT project this paper discusses the similarities and differences of approaches, models, and methodologies developed and utilized for measuring ROI in IT investment, particularly in the public sector. The paper also provides a descriptive data analysis of trends in IT investments in the United States.

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Presentations

Public Return on Investment (ROI)

This presentation was delivered by one of CTG's SAP partners (Ian Swann, Vice President, SAP Public Sector) at the *Impact of eGovernment in Europe* conference in Helsinki, Finland on September 13, 2006. The PowerPoint presentation can be downloaded from this Web page http://www.egov-goodpractice.org/event_details.php?eventid=125 under the "Documents" heading by selecting the seventh item listed, identified as "SAP (Swann).ppt."

Press Releases & News Stories

Press Releases

Research on Government IT Investments Finds Public Sector Value Creation that Goes Far Beyond Traditional Financial and Service Evaluation Data
Tue, 12 Sep 2006

UAlbany's Center for Technology in Government and Software Industry Leader SAP Collaborate on Public ROI Research
Mon, 05 Dec 2005

News Stories

Evaluating IT Investments

StateTech

July 2008

New ROI Approach Puts "Public Value" Front and Center

StateTech

April 1, 2007

State's Digital Archives preserves more than 10 million records online

Washington Secretary of State Press Release

January 12, 2007

What's IT Worth

American City & County

January 1, 2007

PROI Impacts IT Spending

GovPro

December 19, 2006

State's ERP project inspires public value approach: Pennsylvania system used as a case study to assess impact of IT on citizen services

Federal Computer Week

December 4, 2006

Finding Government's ROI: A new research report looks at how government can measure the social, economic and political benefits of IT

Public CIO

December 2, 2006

SAP framework for ROI promotes better governance

Public Sector Technology & Management

December 2006

Embracing Value

Public CIO

December 2006

Measuring Public Value

GOVEXEC.com

November 11, 2006

State of States

GovernmentVAR

November 10, 2006

Is YouTube more valuable than, say, Grants.gov?

Government Computer News

October 12, 2006

How To Measure ROI of Public Value Initiatives

GovernmentVAR

October 11, 2006

Research Finds Public Sector Value Creation Goes Beyond Traditional Financial and Service Evaluation

Government Technology

September 22, 2006

White paper explores public ROI

Federal Computer Week

September 14, 2006

What's your IT investment worth--really?

Government Computer News

September 13, 2006

SAP works to improve e-government

InfoWorld

August 07, 2006

State University of New York Study: "MERKAVA Project Achievements Impressive"

Haaretz-TheMarker Daily (Israel), translated into English

July 26, 2006

Knowledge as Power in the Public Sector

CIO Government Review

May/June 2006

State archiving to draw global attention

The Olympian

February 2, 2006

Digital Archives chosen as world class model of government efficiency

Washington Secretary of State Press Release

January 31, 2006

Public Sector E-Biz ROI

Line56

December 16, 2005

SAP, university to study government ROI

Federal Computer Week

December 6, 2005

Researcher to create investment forecast tools

The Business Review (Albany)

December 6, 2005

SAP launches effort to measure IT value for government.

Federal Computer Week

June 13, 2005

Funding Source

This Public ROI project was made possible with exclusive funding and guidance from SAP, the leading provider of enterprise software solutions that help public sector organizations increase process efficiency and transparency while delivering public value to their constituents.

Original Scope of Work

This project consisted of three main activities: (1) conducting an international workshop with experts in government IT to develop a research agenda and conceptual themes for public return on investment (ROI) assessment; (2) conducting five case studies of public ROI in governments internationally to include the US, Canada, and Europe, and (3) developing a white paper presenting a new methodology for assessing public returns on government IT investments.

Agenda Setting Workshop

On July 13, 2005 the Center for Technology in Government, in collaboration with SAP, hosted a consultative workshop on assessing public return on government investments in IT. A select international group of 22 experts from government, academia and the private sector were invited to met with researchers from CTG to discuss the core issues and themes that make assessing public ROI for IT investments such a complex and difficult problem. CTG disseminated the results from this workshop to the participants and also the information collected to inform the follow-on research.

Representatives from the below government agencies, academic institutions, and private sector companies had the opportunity to work throughout the day to define and clarify issues, and to share knowledge about public ROI practices and experiences in the North America, Europe, and elsewhere.

Government representatives included:

- Austrian Ministry of Finance
- Canada Revenue Agency
- U.S. General Services Administration
- U.S. Government Accountability Office

Private sector representatives included:

- Accenture
- Cisco Systems
- Gartner
- IDC
- McKinsey & Company
- SAP

Academia representatives included:

- Harvard University
- Indiana University
- University of North Carolina at Chapel Hill
- Technical University Delft, The Netherlands

Case Studies

CTG, with support from SAP, completed its five case study site visits in mid April of this year. The CTG research team visited and interviewed key participants in government institutions both in the United States and internationally. Interviewees included senior government officials, IT and program managers, and system users who were willing and able to speak about the Public return on investment (ROI) of specific government IT initiatives that they were involved in.

In collaboration with the case study participants, CTG developed five case study reports. To view the reports, click on the links below. The five case studies included:

- The Austrian Federal Budgeting and Bookkeeping System (Austria) – Federal Government of Austria's Enterprise Resource Planning (ERP) implementation to standardize the federal government's budgeting and bookkeeping processes.
- The Commonwealth of Pennsylvania's Integrated Enterprise System (United States) – Commonwealth of Pennsylvania's ERP implementation to put in place the technical infrastructure and enterprise standards for core administrative functions.
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- The Washington State Digital Archives (United States) – The State of Washington's investment in digital archiving for government records to provide collection, preservation, and access to records of enduring legal and historical significance.

Project White Paper

During the spring and summer of 2006, CTG completed its analysis of the case studies data and related research findings. Based on both the case studies data and related research findings, CTG also developed its project white paper Advancing Return on Investment Analysis for Government IT: A Public Value Framework. Prior to publishing, the white paper was reviewed by a select group of thought leaders from the public and private sectors and academia. Participants from both the July 2005 Public ROI Workshop and the case studies were part of this expert review group.

Related Web Sites

SAP Advances Effort to Help Public Sector Organizations Measure Political, Social and Operational Value of IT Projects
www.sap.com/company/press/press.epx?pressid=6714

SAP for Public Sector provides comprehensive solutions to help governments and public organizations improve economic viability and increase process efficiency and transparency while better serving the needs of the public. With more than 1,050 customers in 70 countries, SAP is the leading provider of enterprise business solutions to the public sector.

SAP for Public Sector
www.sap.com/industries/publicsector/index.epx

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SAP for Public Sector: Defining "Public ROI"
www.sap.com/industries/publicsector/roi.epx

Working with the Center for Technology in Government, SAP is spearheading an initiative to develop "Public ROI" -- a method for defining, measuring, and communicating the economic, social, and political returns of government IT programs.

Related Information

Publications

ProveIT:The Disciplines of Harvesting Value from Public Sector Information Technology

From the Center for Digital Government Signature Series with the support of Hyland Software, NIC, Nokia, and SAP

"http://www.ctg/albany.edu/projects/proi/proveit.pdf

Return on Investment In Information Technology: A Guide for Managers

From the Center for Technology in Government

New information technology (IT) systems are serious, and potentially risky, investments for government agencies and nonprofit organizations. This guide is designed to help public sector managers better understand how a return on investment (ROI) analysis can take some of that risk out of their next IT investment.

"http://www.ctg/albany.edu//publications/guides/roi

Contact Information
Center for Technology in Government
University at Albany, SUNY
187 Wolf Road, Suite 301
Albany, NY 12205
(518) 442-3892 (phone)
(518) 442-3886 (fax)

Brian Burke

Project Manager

(518) 442-3895