

White Paper



BUILDING THE BUSINESS CASE FOR INTRANET AND INTERNAL COMMUNICATIONS

PROVINCIA DI BRESCIA

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INTRODUCTION

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This paper describes work carried out at the Provincia di Brescia to establish the business case for deploying modernised working practices for Brescia's employees and partners.

The paper is structured to follow the three stages summarised on the next page, beginning with a brief introduction to the Provincia di Brescia.

The core section (Stage 2, 'Building The Business Case for Modernisation') includes a description of the process and analysis carried out at each of the four key steps, in particular:

- How Brescia identified and categorised benefits
- The process of establishing potential opportunities and risks
- How Brescia determined whether those opportunities would generate a sustainable level of benefit
- The quantified return on investment (ROI) analysis of the key opportunities
- The prioritisation model used to aid resource allocation

To assist with this process, Brescia developed a diagnostic tool which provided a methodology for identifying and categorising opportunities.

The paper concludes with a summary of key learning points.

Brescia's partners in building the case for modernisation have made a number of specific contributions. Cisco Systems provided the ROI model that was used to verify Brescia's initial business case. In addition, the overarching methodology described in this paper and used to build Brescia's business case was developed jointly with colleagues at Cisco Systems, leveraging similar experience with the London Borough of Hillingdon.

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BUILDING THE BUSINESS CASE FOR INTRANET AND INTERNAL COMMUNICATIONS

STAGE 1 LOCAL STRATEGIC PLANNING CONTEXT FOR MODERNISATION

What are Brescia's strategic drivers for modernisation?

Generate cost/productivity gains
Community leadership role
Being an 'employer of choice'
Meeting citizens' expectations

Work-life balance aspirations
Improve accessibility to services
Increase collaboration with local partners
Start collaboration with international partners

STAGE 2 BUILDING THE BUSINESS CASE FOR MODERNISATION

Step 1 – Benefit Identification

Identify the range of benefits modernisation needs to achieve for your organisation. This will help determine where best to apply the diagnostic tool.

Step 2 – Reality Check

Review the outcome of the benefits you have identified – are they as you expected and require? If not, stop and revisit your benefits.

Step 3 – Completing the Business Case

Develop a costed ROI for implementing the priority benefits generated by the diagnostic tool. This should answer the key questions: 'What is the total investment required?', 'What is the payback period?' and 'What are the net recurring savings?'.

Step 4 – Prioritising the Business Case

Systematically evaluate each component of the business case using consistently applied prioritisation criteria to assist resource allocation for modernisation initiatives.

STAGE 3 IMPLEMENTING INITIATIVES

Integrate outcomes from the business case into your organisation's existing project management methodology, to implement modernisation initiatives and achieve desired goals.

EXECUTIVE SUMMARY

In 2003, when Provincia di Brescia started to explore the business case for modernising working practices – specifically in the areas of Intranet and Internal Communications – it used the experience of the London Borough of Hillingdon as a benchmark. This suggested three distinct stages should be followed:

1. Strategic planning context
2. Building the business case for modernisation
3. Implementing modernisation initiatives.

As Stages 1 and 3 will be determined by each local authority's particular circumstances, this paper limits itself to summarising the factors relevant to Stages 1 and 3 in Brescia.

The focus of this paper is therefore the four steps contained in Stage 2, and the learning gained when these steps (outlined below) were applied to the Provincia's Intranet and Internal Communications.

Step 1: Benefit Identification

A qualitative process that identified the potential benefits and beneficiaries of modernisation. In Brescia's case:

- Benefits were categorised as either 'red', 'orange' or 'green' according to their characteristics, and the primary beneficiaries were defined as the community, external stakeholders, or employees.
- A 'benefit, target group' matrix was generated to map potential benefits against beneficiaries.

Step 2: Reality Check

A review component that assessed whether the balance of potential opportunities generated an acceptable level of benefit, highlighting the major elements that were critical to the implementation of the program.

- Brescia's benefits identification exercise and the analysis of critical elements proved sufficient to merit a quantified return on investment (ROI) analysis.

Step 3: Completing the Business Case

A quantitative cash flow-based ROI with the objective of answering three key questions that emerged from the previous analysis:

- What is the total investment required?
- What is the payback period?
- What are the net recurring savings?

Step 4: Prioritising the Business Case

Steps 1-3 established the qualitative and quantitative components of the business case. The final step was to select initiatives that would deliver the benefits of that business case. In Brescia's case the number of initiatives was rather large, therefore:

- An E-Services Prioritisation Model was developed to evaluate diverse initiatives against a number of weighted criteria, including size of impact, complexity of delivery, and potential to create value beyond the service.

Key outcomes and learnings

Brescia identified the following projects for analysis (and, ultimately, implementation):

- Online Requests and Authorisations
- Employee Directory
- Mobile Communication
- Video Conferencing
- E-Procurement
- Online Expenses
- E-Learning
- Digital Signature
- Web Communications

In building its business case for modernisation, Brescia demonstrated a return on investment of 17 months (excluding e-procurement) and 25 months (including e-procurement). The total cost, both capital and operating expenditure, over five years was less than €3 million. By the end of this period, annual net benefits equivalent to approximately €2.8 million were estimated.

Alongside these benefits Brescia identified a number of risks, in particular the potential for employees to be alienated by the new processes and applications being introduced. As a result, change management will be an important aspect of the modernisation process.

Other positive outcomes and learnings from the exercise include:

- Greater co-operation between Brescia's IT Department and its business offices, which is seen as the first step towards the creation of an integrated governance model that will increase the organisation's level of 'net readiness'.
- An understanding that e-enabling internal service delivery is not just about digitising existing manual processes; it is about achieving profound business transformation through carefully managed organisational change.
- Awareness that the involvement of senior managers in the business case analysis is vital to its success.

Finally, the process has generated the following tangible outputs:

1. A diagnostic tool to assist analysis of modernised working opportunities and to categorise e-delivery options.
2. A ROI model for modernised working populated with costed assumptions and variables. This was taken from Hillingdon's experience and applied to Brescia's needs.
3. A generic E-services Prioritisation Model to assist decision making and the allocation of resources to modernisation initiatives.

STAGE 1 THE LOCAL STRATEGIC PLANNING CONTEXT FOR MODERNISATION

INTRODUCTION

The detailed analysis carried out by Brescia has highlighted the importance of answering the question: 'What are the drivers for modernising your public services?'. While Brescia's work constitutes a valuable frame of reference, the answer to this important question is for each local authority to determine, based on its own circumstances.

STRATEGIC PLANNING CONTEXT FOR MODERNISATION – OVERVIEW OF PROVINCIA DI BRESCIA

The Province of Brescia is a local government authority with a staff of 1,105 people (January 2003) and a budget (for the year 2003) of €496,920,000. The volume of overall general expenses is around €170,000,000 per year and investments reach €300,000,000.

The Province is charged with a number of administrative tasks that are defined by Italian law or mandated by the Region of Lombardia. The most important are:

- Protection of the environment (air, land and water)
- Regulation of the use of water and natural energy
- Transport and communications
- Secondary education
- Providing data processing services and technical support to local authorities
- Co-ordination of economic, touristic, social, cultural and sporting activities

Other tasks include strategic long-term planning, in collaboration with local municipalities, to promote general and sector-specific development.

THE INNOVATION DEPARTMENT

Brescia's Innovation Department is responsible for supporting the Administration's technology implementations and managing its organisational strategy. Its three main centres of competence are:

- The Information and Telecommunications Office which is in charge of the networks that support the Province's different offices, including the management of the IT infrastructure (servers, data links, network devices, databases, and so on); the development of innovative Intranet, Extranet and Internet services; and the overall management and co-ordination of e-government projects.
- The Internal Audit Office which supports all the strategic planning activities around the Province, working closely with the CEO and his staff.
- The Office for Citizen Relations which provides first level support to the citizens, enterprises and municipalities in their interactions with the Province.

The Innovation Department's role and its internal organisation match the strategic e-government vision of the Province's President and Vice President. This is that modern information technology is not only a tool to improve internal efficiency, but also presents a unique opportunity to enable a new way of working for public administration. So ICT (Information and Communications Technology) must support all the Province's business offices to enable the activation of new online services and the re-engineering of the underlying processes.

With reference to the Province's e-government strategy, the following issues are seen as critical to a successful approach to modernisation and innovation:

- An awareness among the Province's political cabinet of the importance of e-government initiatives.
- The development of a 'managerial culture' among the Province's business sectors.
- The introduction of training and change management to help civil servants adopt the new technologies at their disposal.
- The organisation's ability to adopt e-government solutions across different sectors.
- The creation of successful partnerships inside and outside the organisation.

THE COMITATO TECNICO SCIENTIFICO (E-BOARD)

Those issues were taken into consideration during the early stages of work of Brescia's Comitato Tecnico Scientifico. This e-board, created as a result of a Cisco Net Ready Assessment, is made up of a representative (manager and/or main officer) of each office at the Administration, the director of the Innovation Department and his staff, and Cisco Systems as an external advisor.

The initial focus of the work was on the Intranet and Internal Communications side of Brescia's business – a horizontal and cross-functional area.

Within this area, the e-board identified a number of reference projects which constitute the core of Brescia's Intranet strategy. They are as shown in the following table.

Target Area	Project	Description
Intranet	Request for holiday, travel and transfers	Online request performed by employee as self-service, back office integrated
Intranet	Approval for holiday, travel and transfers	Online approval provided by manager or administration as self service, back office integrated
Intranet	E-procurement	Online procurement of MRO
Intranet	Online expense report	Online tool for submitting expense reports related to travel and other requests
Intranet	Employee directory	Online directory including employees' details, department, position, contact numbers
Digital Signature	Signature for dirigenti (senior managers)	To be used for validation of internal documentation
Digital Signature	Signature for external users	To be used for transmission and validation of documentation sent and received by the Province
Video Conferencing and Video on Demand	Video conferencing	To be used for inter- and intra-departmental communications, at all levels of the organisation
Video Conferencing and Video on Demand	Video on Demand training on Intranet	To train employees in the effective use of the Intranet, behind each application
Video Conferencing and Video on Demand	Video on Demand for business and services to citizens	Provided behind each application or traditional process needing training
Video Conferencing and Video on Demand	Video on Demand for internal communications	Communication to employees on topics such as internal culture and policies, new processes and regulations, executive communication by the board and the cabinet
Video Conferencing and Video on Demand	Video on Demand for external communications	Communication to businesses and citizens on the initiatives of the Province
E-learning	E-learning for employees	Online learning management, skills assessment, training delivery and post course tests
Mobile Communications	Handheld communications (Blackberry) for executives	Mobile access to email and calendar. Co-ordination of information (delibere, ordini del giorno, etc.) to be published on the Intranet
Mobile Communications	Employee mobility solution	To allow field employees to leverage mobile solutions (GPRS, etc.) for data access and upload. Partial home working solutions

STAGE 2 BUILDING THE BUSINESS CASE FOR MODERNISATION

INTRODUCTION

Having identified the most important drivers for modernisation and the major projects, the core of Brescia's work focused on building the business case. This emerged over time and was refined through an iterative process involving four steps.

Building the Business Case for Modernisation

Step 1 Benefits Identification

Identify the benefits modernisation needs to deliver for the organisation.

Step 2 Reality Check

Review the diagnostic outcome against the benefits required.

Step 3 Completing the Business Case

Develop a costed ROI on all or selected priority elements defined by the diagnostic.

Step 4 Prioritising the Business Case

Evaluate the business case using agreed prioritisation criteria to assist decision making on resource allocation.

The following sections provide a brief explanation of Brescia's process as well as the key outcomes from the business case.

BUILDING THE BUSINESS CASE FOR MODERNISATION

Step 1 – BENEFIT IDENTIFICATION

Step 2 – Reality Check

Step 3 – Completing the Business Case

Step 4 – Prioritising the Business Case

BENEFIT IDENTIFICATION

Brescia's process of benefit identification was as follows:

- First, the benefits associated with modernisation were explicitly defined by the e-board. Brescia found it helpful to identify three broad target groups as potential beneficiaries:
 - Employees
 - Citizens and the business community
 - Other local public administrations (e.g. municipalities, schools, etc.)
- Second, a 'long list' of benefits was developed. Nothing was ruled out in the first instance as the benefits of modernisation can be unexpected and diverse.
- Third, a practical system of categorisation was used to map each 'long list' benefit against one of three broad groupings:
 - **Red Benefits** – those that will (when delivered) realise hard cost savings in areas such as premises or procurement.
 - **Orange Benefits** – productivity improvements in terms of employee time saved, for example from web-enabled internal administrative processes. These types of benefit require proactive management in order to be realised. They can either be banked as financial savings or used as 'free' resources to be reallocated elsewhere.
 - **Green Benefits** – those that cannot be converted with any degree of reliability into cash or productivity gains, such as building organisational capacity, providing better services to citizens or raising the Province's profile with key stakeholders.

When this process was complete, Brescia identified a set of desired red, orange and green modernisation benefits:

Potential red benefits: hard cost savings

Reduced premises costs – savings on office space

Print costs – on documents such as employee directory and internal communications

Travel costs – due to offsite training and building-to-building transfers

Hotel costs – due to offsite training

Reduced facilities management costs – fewer premises

Cheaper, faster procurement – enabled by online procurement

Reduced postage costs – channel swapping from manual post to (mobile) email

**Potential orange time and/or productivity benefits:
either convertible to cash or redirected elsewhere**

Staff reallocation to new areas – from travel/vacation/permits requests

Staff reallocation to new areas – from travel/vacation/permits authorisations

Staff reallocation to new areas – from expense reports management

Employee time savings – for travel/vacation/permits requests

Employee time savings – from travel/vacation/permits authorisations

Employee time savings – from submission of expense reports

Employee time savings – from use of employee directory

Employee time savings – from mobility of senior management

Employee time savings – from web communication solutions

Employee time savings – from video conferencing solutions

Employee and citizen time savings – from Digital Signature solution

Reduce commuting time – flexible working reduces frequency of commute

Better time to competency – more productive days due to e-learning

Greater work flexibility – ‘just in time’ processes due to e-learning

Potential green intangible benefits: not readily converted to a financial value or redirected

Community leadership – major local employer embracing information age

Reputation – as a forward looking organisation

Openness to innovation – building future capability and capacity

Project image of modernity to stakeholders – work with an innovator

Citizens’ service accessibility – better responsiveness

Quality of service – lower-cost, faster services that meet citizens’ needs

Employee empowerment – via digital self service and engagement

Greater employee responsibility – cultural change via modernised working

Increased employee privacy – due to process automation

Leaner and faster communications process – between offices

Process standardisation – enforced by Information Technology standards

Data consistency – enforced by non-manual data processes

Environmental impact – due to paper-free transactions

Improved work-life balance – for staff involved in modernisation

Shorter request-to-approval process – decreasing employee stress

Staff motivation – improved by modernised flexible working and team work

Regional/sub regional good practice – being an exemplar for peer authorities

The process of identifying benefits resulted in a matrix that combined both benefit categories and target groups, as shown below:

Benefit, Target Group Matrix

TARGET GROUPS	BENEFIT CATEGORIES		
	RED	ORANGE	GREEN
Citizens and the business community			Greater responsiveness and higher-quality services
Employees	Reduced cost of premises and administration	Greater productivity, resource re-allocation	Staff empowerment and motivation, leaner processes
Local Public Administrations			Practice sharing, development of 'sistema Provincia'

By identifying these benefits at the outset of the business case Brescia found that it:

- Focused attention on the benefits most relevant to the organisation.
- Established a set of benefits against which the analysis of critical elements would be assessed.
- Helped address the question of where to apply the modernisation diagnostic – this is explained further in Step 2.

Step 1 – Benefit Identification

Step 2 – REALITY CHECK

Step 3 – Completing the Business Case

Step 4 – Prioritising the Business Case

INTRODUCTION

The objectives of the Reality Check in Step 2 were to:

1. Clarify the key opportunities and risks generated by the benefits analysis.
2. Assess the opportunities and risks against the benefits identified at Step 1.
3. Determine whether the opportunities and risks were likely to generate an acceptable level of benefit, paying particular attention to the evaluation and management of risks identified by the diagnostic. In Brescia this assessment was directed towards the following issues:

- If an acceptable level of benefit was not demonstrated, pause and review the original benefits, revisit the scope of the analysis and, if necessary, determine why the business case for modernisation was not sustainable.
- If an acceptable level of benefit was demonstrated, the costs and savings associated with the opportunities in question were developed into a costed ROI in Step 3.

REALITY CHECK – INTRANET AND INTERNAL COMMUNICATION

Clarify The Opportunities And Risks Generated By The Benefits Analysis

By applying the three elements of its diagnostic tool to the areas of Intranet and Internal Communication, Brescia identified a number of opportunities and risks.

Business Case Opportunities

1. One hundred per cent of office-based staff could benefit from Directory and Holiday and Permits Request solutions on a daily basis. Ninety per cent of the Province's workforce could benefit from the Expense Report and Travel Request and Authorisation solutions.
2. Fifty two of the Province's employees and its entire business community could utilise the Digital Signature solution, resulting in 12,000 paper transactions being transferred to the web each year.
3. Approximately €17 million MRO spending could be transacted over an e-procurement solution each year, reducing the procurement cycle time and optimising Brescia's contract negotiation process with its main vendors.
4. A wide range of online functions in the area of internal communications was identified as suitable for e-enabling, together with a number of innovative mobile solutions. Opportunities to deliver potentially faster, cheaper and more consistent communications online were clarified.

Business Case Risk Factors

1. A common theme to emerge was the importance of managing key human resources effectively – and the risk to the modernisation program of not doing so. In particular:
 - Whether modernised working practices were mandatory or voluntary.
 - Maintaining a balance between employees' expectations of improved work-life balance and the needs of the Public Service.
 - Capability gap analysis – whether the right skills to sustain a modernised organisation exist and, if not, how they are going to be nurtured.
 - Managing restricted human resources when faced with increased citizens' and executives' expectations and aggregate demand.

2. The organisation's ability to effectively re-engineer its administrative and internal communications processes was an area for discussion, both in terms of change management capabilities (employees' ability to abandon paper-based practices in favour of technologically advanced ways of working) and of process re-engineering (the organisation's ability to re-structure and automate its processes).

3. Fostering employee access to and familiarity with digital channels was identified as critical to realising the benefits of e-services. Without an effective access, motivation and training strategy there is a risk that considerable public resources will be committed to e-enable services that only a relatively small proportion of employees will use.

4. A robust and diverse network of technology partners is needed to plan, deliver and maintain the core ICT infrastructure and value-added software that underpins modernised working practices, improved first line services to citizens and e-enabled services.

Does The Business Case Deliver Acceptable Benefits?

To further the discussion on whether the program delivered acceptable benefits, Brescia revisited the original benefits matrix. Through a qualitative, rather than quantitative, process each of the original key benefits was reviewed alongside the opportunities and risks generated by the second phase of analysis. The outcome was to rate each benefit as either:

- Sustainable (Yes)
- Unclear due to incomplete data (?)
- Compromised due to insufficient opportunities or outweighed by risk (No). In Brescia's particular case the 'No' categories were not identified.

Benefit, Target Group Matrix:

TARGET GROUPS	BENEFIT CATEGORIES		
	RED	ORANGE	GREEN
Citizens and the business community			(?) Greater responsiveness and higher-quality services
Employees	(Y) Reduced cost of premises and administration	(Y) Greater productivity, resource re-allocation	(Y) Staff empowerment and motivation, leaner processes
Local Public Administrations			(?) Practice sharing, development of 'sistema Provincia'

The qualitative review of the benefit matrix suggested that a number of benefits were potentially sustainable. The next step was to complete the business case by carrying out a quantitative assessment of the costs and savings derived from the key opportunities and benefits.

BUILDING THE BUSINESS CASE FOR MODERNISATION

Step 1 – Benefit Identification

Step 2 – Reality Check

Step 3 – COMPLETING THE BUSINESS CASE

Step 4 – Prioritising the Business Case

INTRODUCTION

The Reality Check identified a number of red and orange benefits that appeared sustainable. The purpose of Step 4, Completing the Business Case, was to use an established ROI model to identify and scrutinise the quantitative costs and savings associated with each of the following benefits:

Red Benefits	Orange Benefits
Directory print cost savings	Admin staff re-allocated to new areas – requests
Total e-learning travel cost savings	Requests (vacation, permits, travel) time saved per year
Total e-learning hotel and expense cost savings	Authorisation staff re-allocated to new areas – authorisations
Potential office space savings	Authorisation time saved per year
Video conferencing travel cost savings	Admin staff re-allocated to new areas – expenses
E-procurement savings	Total employee time saved – expenses
	Value of directory time saved per year
	Value of flexibility of e-learning
	Value of e-learning time to competency productive days
	Value of senior management mobility time savings
	Value of employee mobility time savings
	Value of saved transaction time from Digital Signatures
	Value of time savings from video conferencing
	Value of web communications time saved per year

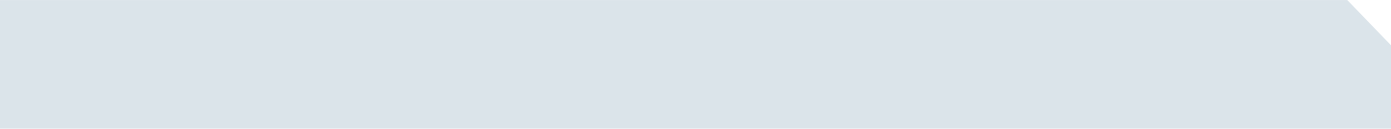
ROI METHODOLOGY – STRENGTHS AND LIMITATIONS

The ROI analysis was carried out using a cash flow model as is common practice in the private sector. The model was developed specifically for Brescia using the same methodology that Cisco Systems uses to evaluate the benefits of Internet Business Solutions across a number of e-business domains including Customer Care, Supply Chain Management, Workforce Optimisation and E-Learning.

ROI analysis is particularly helpful when used to consider not only new technologies but also their impact on working practices and associated business processes. This is how it was used at Brescia.

A number of scenarios was created and modelled for each of the initiatives. Assumptions were made about the speed of implementation and the take-up by end users of the new ways of working. In each case:

- **Red** benefits (i.e. hard cost reductions) were estimated in terms of their monetary value.
- **Orange** benefits (i.e. time saving productivity benefits) were modelled in terms of their monetary value (by equating the time saved to the average salary rate). Equating such benefits to a monetary value is a means of identifying the ‘opportunity’ of the time released which may be put to alternative uses.
- **Green** (i.e. non financial) benefits were not modelled as part of the ROI although they do, of course, form part of the overall justification for implementation. This is important because it means that the ROI numbers do not take account of some of the most compelling reasons for implementing initiatives.



It is important to interpret what comes out of a ROI analysis. It should not be thought of as a forecast predicting a known future outcome. Such a view implies that the hard work is done once the business case is estimated. Rather, a ROI analysis is a way of helping an organisation to design the future that it wishes to create. It is a way of capturing assumptions about initiatives, their likely costs and benefits in a transparent manner which allows investigation of any variations to those assumptions.

Ultimately the real value of the model is making assumptions explicit and capturing the logical implications of those assumptions in terms of value to the organisation. The ROI at the planning stage does not address the key issue of allocating accountability to those responsible for achieving the estimated benefits. The following sections describe the analysis undertaken by Brescia and its main results.

THE ROI BUSINESS CASE FOR E-WORKING

Cost Categories and Indicative Values

The table below describes the major cost components in the ROI model. These are broken down into one-off costs and recurring annual costs. Descriptions of each category are provided below.

Cost Summary	Estimated Cost
One-off Costs	€
Requests	8,000
Authorisation	1,500
Expenses	8,000
Employee Directory	9,000
E-Learning	95,000
Mobility – senior managers	30,000
Mobility – employees	279,000
Digital Signature	–
Video Conferencing	23,000
Web Communications	65,000
E-Procurement	500,000
Annual Costs	
Requests	–
Authorisation	–
Expenses	–
Employee Directory	–
E-Learning	20,000
Mobility – senior managers	36,000
Mobility – employees	188,480
Digital Signature	–
Video Conferencing	2,000
Web Communications	20,000
E-Procurement	25,000

Benefit Categories and Indicative Financial Values

To create the ROI business case the costs outlined above were compared to the benefits achieved from modernised working. Brescia arrived at these benefits by comparing the working practices under modernisation to those pre-modernisation and examining the costs associated with each. The resulting savings, over a five year period, are described in the following table.

Benefits (euro)	Year 1	Year 2	Year 3	Year 4	Year 5
Directory print cost savings	400	400	400	400	400
Total e-learning travel cost savings	–	–	–	–	–
Total e-learning hotel and expense cost savings	–	–	–	–	–
Potential office space savings	–	–	–	–	–
Video conferencing travel cost savings	780	780	780	780	780
E-procurement savings	–	425,000	850,000	1,700,000	1,700,000
Sub Total Red Benefits	1,180	426,180	851,180	1,701,180	1,701,180

Indicative Additional Service Provided By Reallocating Productivity Time Savings

In addition to red cost savings, opportunities to save employees' time were also examined. These orange savings were converted to a cash equivalent by applying the average salary rates for the relevant job functions. These benefits differ from the red benefits in that they represent an opportunity for Brescia to do something with the time saved. At one extreme this could mean fewer people providing the same service; at the other it could mean the same people providing more and better services to citizens.

Benefits (euro)	Year 1	Year 2	Year 3	Year 4	Year 5
Admin staff re-allocated to new areas – requests	72,000	144,000	144,000	144,000	144,000
Requests (vacation, permits, travel) time saved per year	–	–	–	–	–
Authorisation staff re-allocated to new areas – authorisations	–	–	–	–	–
Authorisation time saved per year	14,103	28,205	28,205	28,205	28,205
Admin staff re-allocated to new areas – expenses	18,000	36,000	36,000	36,000	36,000
Total employee time saved – expenses	74,038	148,077	148,077	148,077	148,077
Value of directory time saved per year	39,663	79,327	79,327	79,327	79,327
Value of flexibility of e-learning	15,078	25,131	40,209	50,262	50,262
Value of e-learning time to competency productive days	11,423	19,038	30,462	38,077	38,077
Value of senior management mobility time savings	12,500	25,000	25,000	25,000	25,000
Value of employee mobility time savings	123,274	246,548	373,558	373,558	373,558
Value of saved transaction time for Digital Signatures	2,381	9,523	14,285	23,808	23,808
Value of video conferencing time savings	5,000	10,000	10,000	10,000	10,000
Value of web communications time saved per year	130,889	261,779	396,635	396,635	396,635
Sub Total Orange Benefits	518,350	1,032,628	1,325,757	1,352,947	1,352,947

Summary of Benefits and Costs

The following table summarises the annualised full year benefits and costs associated with each initiative – with benefits split between red and orange and costs between one off and ongoing. Note the numbers do not exactly match those used in the detailed model scenarios as it is usual to make conservative assumptions about benefits, assuming less than 100 per cent are enjoyed in some years.

Initiative (euro)	Annual Red Benefits	Annual Orange Benefits	One-off costs	Annual Costs
Requests and Authorisations	-	259	10	-
Expenses	-	277	8	-
Employee Directory	-	119	9	-
E-Learning	-	133	95	20
Mobility	-	600	309	224
Digital Signature	-	72	-	-
Video Conferencing	1	15	23	2
Web Communications	-	597	65	20
E-Procurement	1,700	-	500	25

Modernised Working – Scenarios Modelled and Outcomes

A number of scenarios were modelled which are summarised in the following table and described below. Each scenario represented a separate run of the model in which some of the input assumptions were changed:

- In Case 1 orange productivity benefits were not included; in Cases 2 and 3 some productivity benefits were included.
- In Case 1 the cost of all initiatives was included but only the red benefits were included.
- Case 2 was the same as Case 1 but e-procurement was excluded.
- In Case 3 orange productivity benefits were evaluated in financial terms and all initiatives were included.
- Case 4 was the same as Case 3 but e-procurement was excluded.

The table below summarises the outcome of each Case 1, 2, 3 and 4:

Modernised Working Scenario	Payback Month	Net Annual Benefit In Year 4
Case 1: Red benefits only	46	€1.4m
Case 2: As Case 1 but e-procurement excluded	Not achieved	- €0.3m
Case 3: Full case with orange productivity benefits converted to financial value	25	€2.8m
Case 4: As Case 3 but e-procurement excluded	17	€1.6m

The potential benefits of each scenario were highly significant, with the exception of Case 2 which says that if zero value is placed upon productivity improvements and other non-financial benefits then there is a net cost of implementing initiatives. Additionally these initiatives may be regarded as providing a foundation for others which will themselves provide further benefits over time.

Case 1: Red Benefits Only

The most significant red benefit identified in this case was the potential for reducing procurement costs. Case 1 examines the ROI associated with this option. Payback occurred in just under four years and annual net benefits from Year 4 onwards were €1.4m. The table below describes the outcome from this scenario in more detail.

Benefits (euro)	Year 1	Year 2	Year 3	Year 4	Year 5
Total Financial Benefits	1,180	426,180	851,180	1,701,180	1,701,180
Total Costs	1,309,980	791,480	291,480	291,480	291,480
Cumulative Financial Benefits	1,180	427,360	1,278,540	2,979,720	4,680,900
Cumulative Costs	1,309,980	2,101,460	2,392,940	2,684,420	2,975,900
Annual Net Benefit	-1,308,800	-365,300	559,700	1,409,700	1,409,700
ROI on Financial Benefits	0%	20%	53%	111%	157%
Financial Break Even Month				46	

This shows that the upfront cost of this option was estimated to be €1.3m with a net cost of €790,000 in Year 1. There are significant costs again in Year 2 associated with the deployment of e-procurement. Additionally very conservative assumptions have been made about the deployment of e-procurement with full benefits not occurring until Year 4 (despite the majority of costs being incurred in Years 1 and 2). This means that break even is delayed until month 46. Annual net benefit is positive from Year 3 onwards, rising to €1.4m in Year 4 and beyond. The ROI percentage value is cumulative benefits divided by cumulative costs, i.e. 100 per cent ROI indicates break even.

Case 2: Red Benefits Only E-Procurement Excluded

In this case e-procurement was omitted from the analysis and once again all other costs were included but only red benefits matched to costs. Given that the purpose of many of the initiatives is to promote more efficient and productive working it is not surprising to see that there is no payback in this situation. In order to achieve a positive payback, freed up resources would have to be released rather than made available for additional work as is the case here.

The following table details the results for this scenario.

Benefits (euro)	Year 1	Year 2	Year 3	Year 4	Year 5
Total Financial Benefits	1,180	1,180	1,180	1,180	1,180
Total Costs	784,980	266,480	266,480	266,480	266,480
Cumulative Financial Benefits	1,180	2,360	3,540	4,720	5,900
Cumulative Costs	784,980	1,051,460	1,317,940	1,584,420	1,850,900
Annual Net Benefit	-783,800	-265,300	-265,300	-265,300	-265,300
ROI on Financial Benefits	0%	0%	0%	0%	0%
Financial Break Even Month					

Case 3: Full Case with Productivity Benefits Converted into Financial Value

The results from this case were:

Benefits (euro)	Year 1	Year 2	Year 3	Year 4	Year 5
Total Financial Benefits	519,530	1,458,808	2,176,937	3,054,127	3,054,127
Total Costs	1,309,980	791,480	291,480	291,480	291,480
Cumulative Financial Benefits	519,530	1,978,338	4,155,275	7,209,403	10,263,530
Cumulative Costs	1,309,980	2,101,460	2,392,940	2,684,420	2,975,900
Annual Net Benefit	-790,450	667,328	1,885,457	2,762,647	2,762,647
ROI on Financial Benefits	40%	94%	174%	269%	345%
Financial Break Even Month			25		

This illustrated (in financial terms) the significant additional productivity benefits from the extra initiatives considered in this case. Given that it is unlikely that Brescia would attempt to convert productivity benefits into cash this case needs to be considered as providing a summarised overview of the opportunity cost saving of all red and orange benefits converted into a common cash-based currency. Equally a different common currency could have been chosen to express this value (e.g. equivalent employee hours saved).

This highlights a key difficulty with ROI which is essentially a financial measure of impact. A choice needs to be made either to ignore the very real benefits which do not easily convert to cash or to use a conversion mechanism that is ultimately less than perfect. A more robust method would be to examine how the time saved is to be used and to place a value on this. However within the timeframe available to conduct this analysis, valuing time at employee cost was considered a reasonable first order approximation.

Financial break even was achieved in Month 25 and the annual recurring net benefit by Year 4 was €2.8m. Of course the managerial challenge remains of ensuring that the 'freed' time is used effectively, and this issue needs to be addressed to ensure that benefits are actually realised. (This issue is dealt with below when performance measures are considered.)

Case 3: Full Case with Productivity Benefits Converted into Financial Value E-Procurement Excluded

The results from this case were:

Benefits (euro)	Year 1	Year 2	Year 3	Year 4	Year 5
Total Financial Benefits	519,530	1,033,808	1,326,937	1,354,127	1,354,127
Total Costs	784,980	266,480	266,480	266,480	266,480
Cumulative Financial Benefits	519,530	1,553,338	2,880,275	4,234,403	5,588,530
Cumulative Costs	784,980	1,051,460	1,317,940	1,584,420	1,850,900
Annual Net Benefit	-265,450	767,328	1,060,457	1,087,647	1,087,647
ROI on Financial Benefits	66%	148%	219%	267%	302%
Financial Break Even Month		17			

Here, break even was achieved by Month 17 as the relatively costly introduction of e-procurement was omitted. However this means that the benefits of e-procurement are not enjoyed in later years, thus reducing net recurring benefit to just over €1m.

Consideration of Green Benefits and Risks

Whilst a ROI analysis cannot incorporate non-financial benefits, the overall business case clearly must. Consequently an analysis was carried out to identify the major green benefits and how these interacted with red and orange benefits. As always we matched upside to downside; in this case as well as including green benefits we also considered elements of risk to the project.

To do this the business case was considered through four different lenses:

- The financial view
- The employee's view
- The manager's view
- The citizen's and politician's view

The following section provides an overview of this analysis.

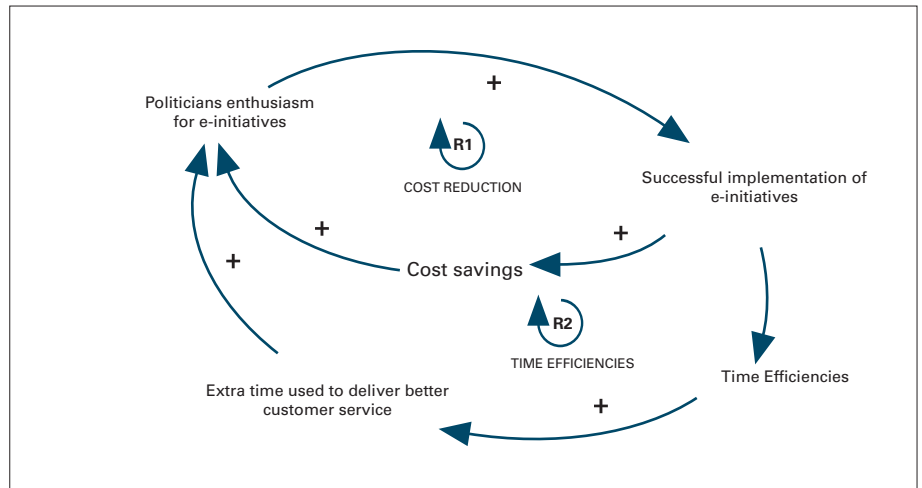
Conventions used in the diagrams

In the diagrams that follow, '+' indicates that the variable at the head of the arrow moves in the same direction as the variable at the foot of the arrow whilst '-' indicates that the variable at the head of the arrow moves in the opposite direction to the variable at the foot of the arrow (all other things being equal). The direction of the arrow shows the hypothesised nature of causality. For example an increase in unresolved queries (foot of the arrow), other things being equal, will lead to an increase in the average response time (head of the arrow).

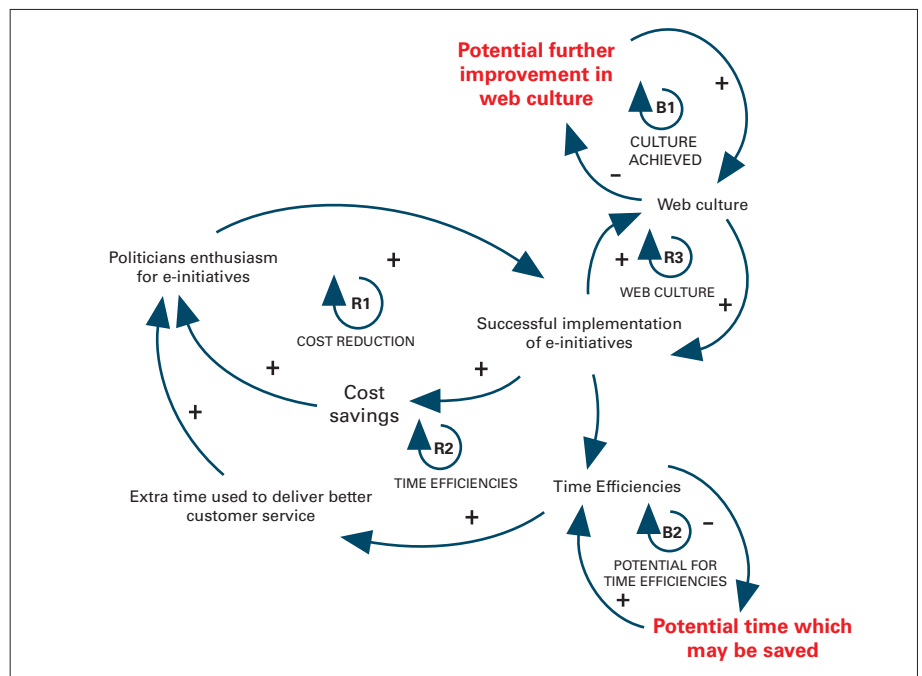
Where feedback loops are formed in the diagram, 'B' indicates a balancing loop where increasing (or reducing) any variable in the loop then working round the chain of cause and effect leads to a compensating decrease (or increase) in the same variable next time round. Conversely 'R' indicates a reinforcing loop where any increase or decrease in a variable is amplified by working through the chain of cause and effect.

The Financial View

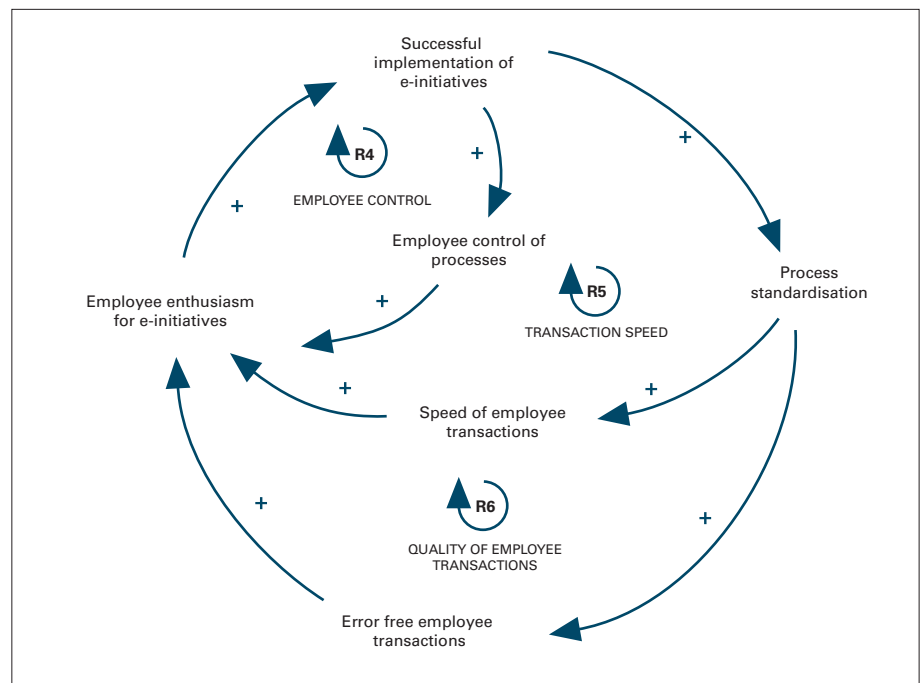
At the simplest level politicians will want to see evidence of cost savings and productivity improvements in order to maintain their enthusiasm for future initiatives. This is illustrated in the diagram below.



However one additional green benefit and two risk factors need to be considered even at the simplest level of analysis. These are that the more initiatives that are introduced, the better the chance of achieving the desired web culture, which is necessary to generate productivity benefits and to achieve the next round of innovation. On the other hand a cumulative check needs to be made on how much time is being saved, as there is a limit to this (i.e. it is not possible to continue implementing new initiatives and saving more time indefinitely). Equally once a web culture has been established then this ceases to be a justification for more initiatives. These conditions were then incorporated into the following diagram.

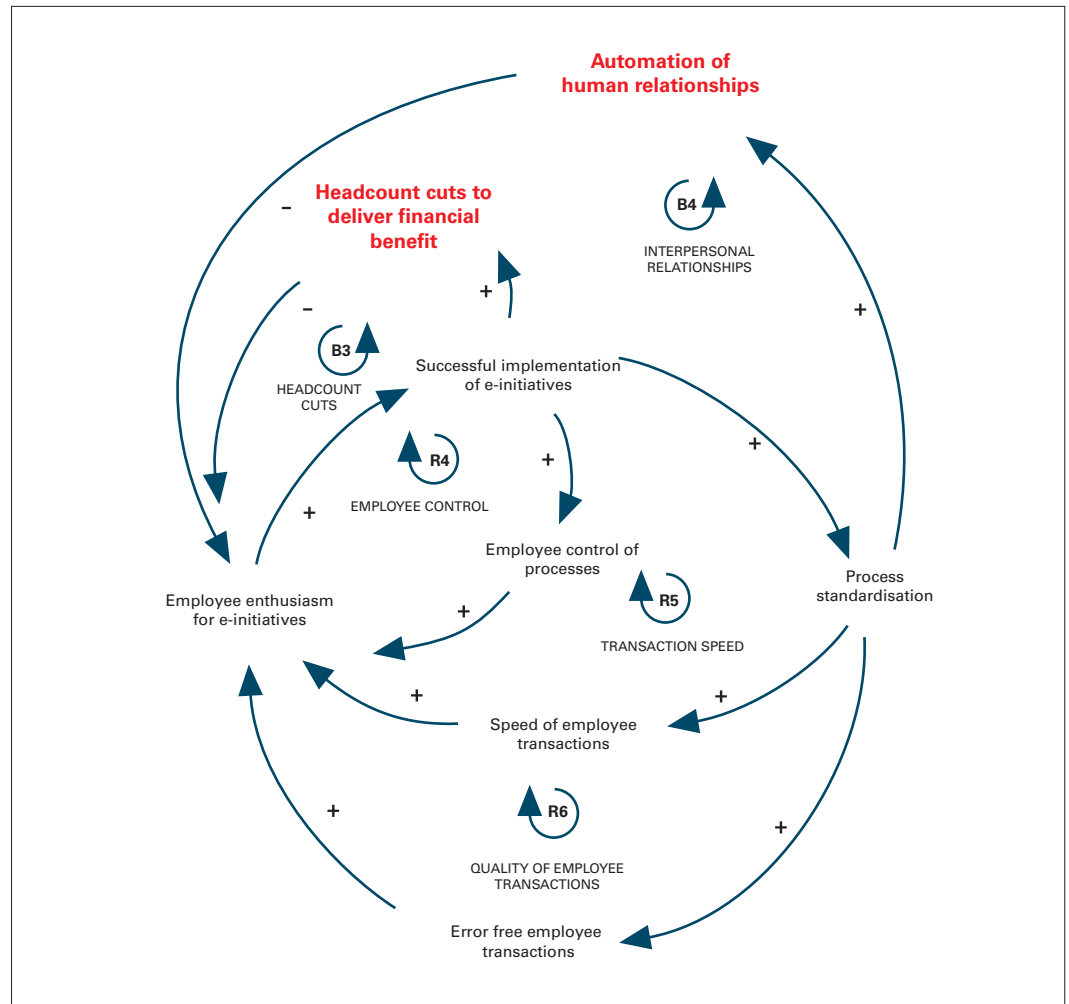


Next the modernisation initiatives were considered from the perspective of an employee, as illustrated below.



One key green benefit was the ‘liberation’ of employees, in terms of giving them control over processes (automatic checks are built into the application instead of requiring approval from the supervisor for every transaction). Another was the speed of transaction achieved through standardisation of processes. This means that approvals and payment of expenses, for example, are much quicker and administrative errors are reduced.

The employee's view was completed by considering the risk of headcount cuts and reduced face-to-face communication, as illustrated below.



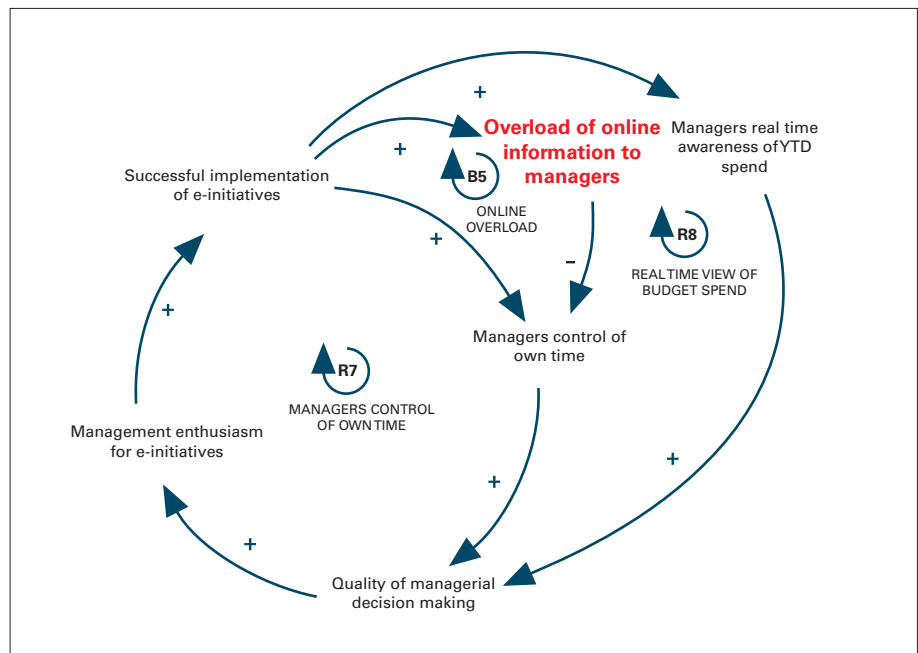
Clearly, if successful initiatives are used to reduce headcount there is a danger of employees rebelling against the initiatives. Given that there are no such plans, this should be communicated clearly to employees to ensure that unwarranted fears do not arise. Another danger is the perceived threat of loss of personal relationships as 'everything is automated'. Clearly it is for management to ensure that efficiency gains and e-communication benefits are used to improve the quality of face-to-face meetings. Nevertheless this is a potential risk that needs to be managed effectively.

The Manager's View

At the most basic level the benefit to managers is the ability to control their own time, spending less on administrative tasks and more on the value-add activities which should ultimately lead to an improved decision making process.

Additionally they can expect to receive better, faster information which allows them a real time (or near real time) view of spend to date and remaining budget. Once again this leads to an improvement in their ability to make timely decisions.

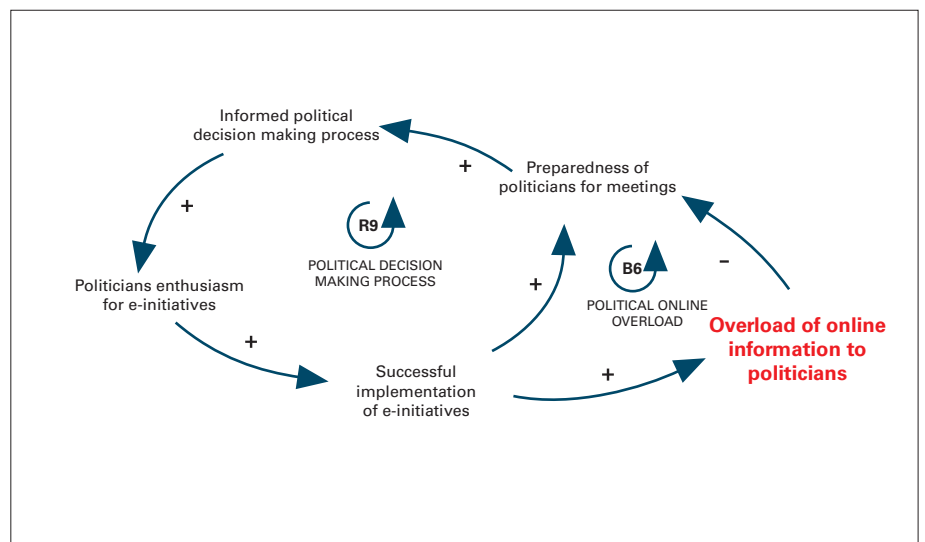
A risk to managers is an overload of information provided online, which is something that needs to be planned for and monitored. The following diagram illustrates these points.



The Citizen's and Politician's View

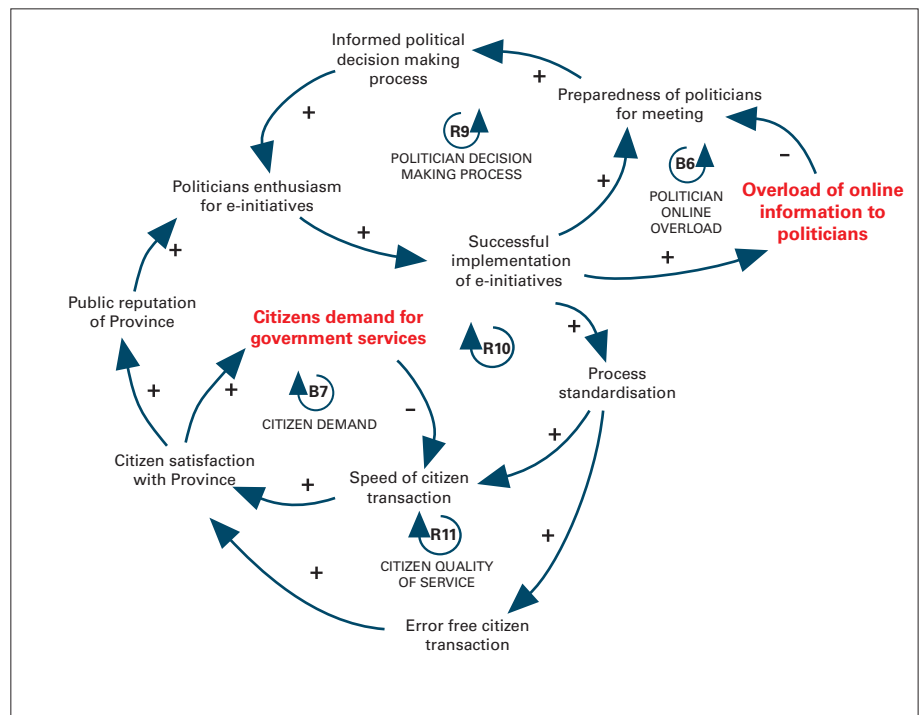
Given the politician's role as the elected representative of the citizen, Brescia considered these two groups together.

Initially the politician's view resembles that of the manager. As politicians receive better and more timely information through the implementation of mobile initiatives they are better informed and therefore able to be more effective in their decision-making role. As with managers there is a potential danger of information overload which must be guarded against. This is illustrated below.



The introduction of modernised working practices will also reduce the time taken to complete citizen transactions. This is just the first phase of improved service to citizens with further significant benefits becoming possible when specific e-citizen initiatives are launched. However that is outside the scope of this business case.

As service to citizens begins to improve, so will citizens' satisfaction and the reputation of the Administration. A potential risk which must be managed is that of satisfied citizens demanding more and more services from the Administration that in turn will slow down transactions. To mitigate this effect, further improvements must be delivered to handle citizen transactions. Again, detailed consideration of this point is beyond the scope of this business case. The situation is illustrated below.



Performance Measures

The ROI and the qualitative analyses were used to create a balanced scorecard of key metrics which should be monitored to ensure that initiatives are successfully achieving intended goals. These performance measures are summarised in the table below.

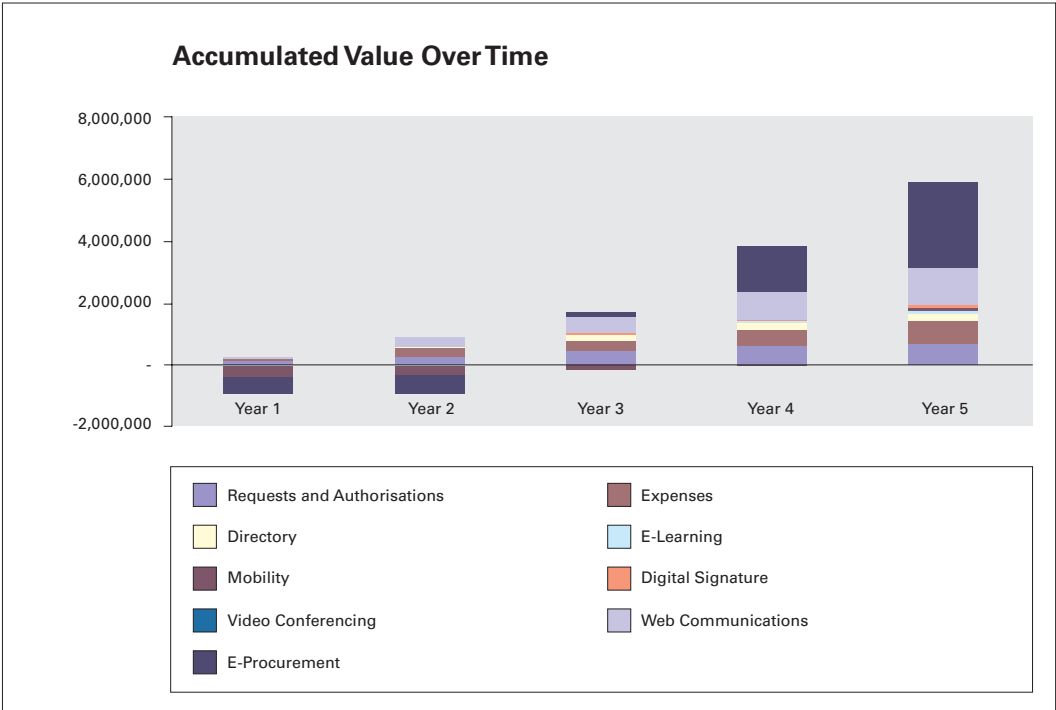
During execution plans should be made to ensure that responsibilities are allocated for monitoring performance and that a review cycle is set up. Benchmarks for some measures can be established from the business case; for others they will need to be defined.

RED	ORANGE	GREEN
<ul style="list-style-type: none"> • Projected benefits of initiatives in pipeline <ul style="list-style-type: none"> • Directory print costs • Travel costs • Hotel costs • Office accommodation costs • Projected benefits of initiatives implemented • Realised benefits of initiatives implemented • Percentage of predicted cost savings achieved 	<ul style="list-style-type: none"> • Projected benefits of initiatives in pipeline <ul style="list-style-type: none"> • Admin staff re-allocated • Requests • Authorisations • Expenses • Directory • E-Learning flexibility • E-Learning competencies • Mobility – senior management • Mobility – employees • Digital Signature • Video conferencing • Web communications • Projected benefits of initiatives implemented • Realised benefits of initiatives implemented • Percentage of predicted cost savings achieved 	<ul style="list-style-type: none"> • Number of initiatives in pipeline • Number of initiatives implemented • Speed of employee transactions (end-to-end) • Error rates associated with employee transactions • Employee satisfaction with online services • Employee satisfaction with level of interaction with managers • Forced headcount cuts associated with initiatives • Average days to receive update on YTD spend • Managers' satisfaction with online processes • Trend in capacity to deliver services to citizens • Trend in citizens' demand for services • External reputation of Province

Additionally performance metrics need to be established to ensure timely and successful execution of the planned initiatives; however that is outside the scope of this document.

SUMMARY – COMPLETING THE BUSINESS CASE

The business case for modernised working practices shows a payback of 17 months if e-procurement is excluded and 25 months if it is included. The total cost, both capital and operating expenditure, over five years is less than €3m. By the end of this period annual net benefits equivalent to approximately €2.8m were estimated.



In addition there are a number of key benefits which have not been expressed as a financial value. Taking these along with the orange and red benefits allowed a balanced scorecard to be created to monitor project success.

BUILDING THE BUSINESS CASE FOR MODERNISATION

Step 1 – Benefit Identification

Step 2 – Reality Check

Step 3 – Completing The Business Case

Step 4 – PRIORITISING THE BUSINESS CASE

INTRODUCTION

Each council will, no doubt, have its own method of prioritising and evaluating the relative merits of projects that are chasing scarce resources. The section below summarises the approach taken by the Provincia di Brescia, leveraging a similar model created by the London Borough of Hillingdon.

PRIORITISING THE BUSINESS CASE

In parallel with the application of the diagnostic to the Intranet and Internal Communications areas, Brescia developed an E-Services Prioritisation Model. The model has been used to rank a number of different e-services initiatives and has contributed to council decision making.

To prioritise projects, a number of criteria were established for summarising the relative impact of an initiative and its ease of implementation. In doing this both financial (red and orange) and non-financial (green) factors were considered. The criteria and relative weighting for each initiative are set out in the tables below.

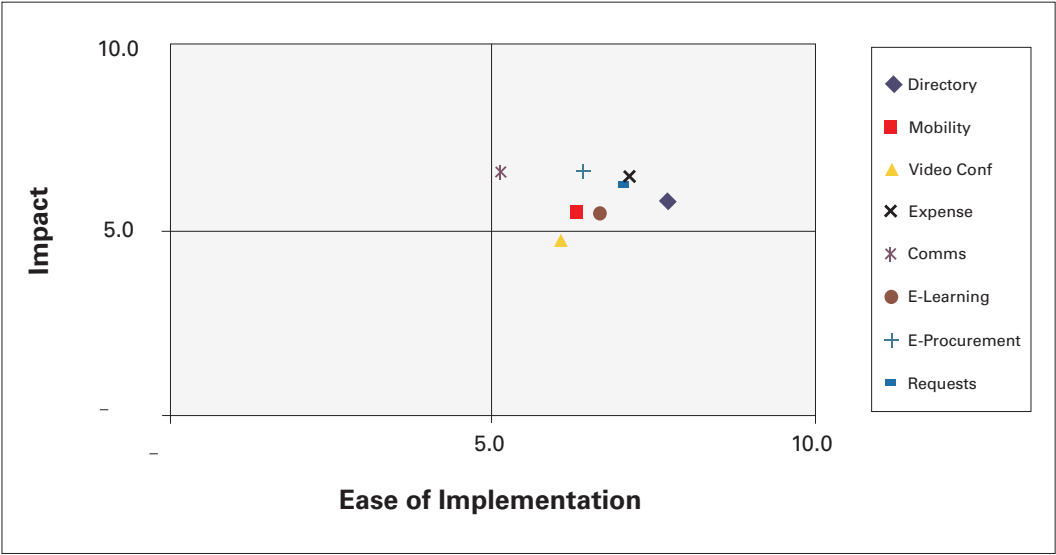
IMPACT	Weights
Cost saving	17%
Time efficiencies	17%
Process standardisation and data cleansing	17%
Employee satisfaction	17%
Better reputation, reference for other govt	17%
Modernisation and Internet culture	17%
EASE OF IMPLEMENTATION	Weights
Cultural acceptance / change management	25%
Process re-engineering	25%
Integration of legacy systems	25%
Network support	25%

Each member of the e-board scored each initiative on a scale of 1 to 10 for each of the criteria. These scores were then averaged and also assessed in terms of significant deviations. Where there were significant deviations, this indicated either a convergence of views or a difference in understanding of the criteria and/or initiative. Those initiatives and criteria showing significant deviation were re-examined by the e-board to arrive at an appropriate consensus score. At the end of this process the project scores were as follows:

	Cost saving	Time efficiencies and data cleansing	Process standardisation	Employees	Better reputation for other govt.	Modernisation and internet culture
Requests and authorisations	-	6.0	8.3	7.6	7.0	8.6
Directory	-	4.0	7.0	7.6	8.1	8.1
Mobility	-	6.0	5.9	6.4	7.3	7.6
Video Conference	-	1.0	5.9	6.0	7.7	7.9
Expenses	-	6.0	8.9	8.6	7.0	8.4
Online communications	-	10.0	6.7	6.7	7.9	8.0
E-Learning	-	3.0	6.7	6.9	7.7	8.4
E-Procurement	7.7	-	8.3	7.0	9.0	7.7

	Cultural acceptance / change management	Process re-engineering	Integration of legacy systems	Network support
Requests and authorisations	7.4	6.6	6.0	8.0
Directory	7.9	7.4	7.4	8.3
Mobility	5.3	5.9	6.1	8.0
Video Conference	6.1	6.0	6.0	6.2
Expenses	7.0	6.6	6.4	8.5
Online communications	5.3	4.4	4.9	6.0
E-Learning	6.3	6.7	6.6	7.1
E-Procurement	6.4	6.0	6.4	6.9

Applying the weights for each criteria to the average scores, Brescia came up with a summary impact and ease of implementation score for each initiative. These were then plotted as shown below.



As each initiative was in the top right quadrant (with the exception of video conferencing which was very close), it was decided that they were all candidates for immediate implementation. The value of this process had been to clarify the details of each initiative and the key criteria, and to check that all initiatives were valid projects in terms of their expected impact and the practicality of implementation.

Each member of the e-board then agreed to take responsibility for one or two projects and to make sure his/her department would adopt those projects in their entirety. This would produce a chain reaction in other departments and allow functionality to be refined and to evolve. Each individual would report back to the e-board on progress and adoption metrics every two to three months. Success and adoption metrics related to each project correspond directly to the impact metrics mentioned above.

The prioritisation model is being used successfully to allocate Brescia's IT funds and, in particular, will help Brescia to launch a growing number of key, specialised modernisation initiatives across different offices and sectors.

STAGE 3 IMPLEMENTING MODERNISATION INITIATIVES

Steps 1-4 focused Brescia's attention on a number of important issues which could be of benefit to colleagues facing similar challenges in other local public administrations:

- What are the gains required from modernisation – identifying the benefits?
- What is the balance of opportunity and risk involved – the outcome of the reality check?
- What will it cost and is it financially sustainable – the quantitative ROI analysis?
- Which initiatives are most important – the e-services prioritisation model?

Being able to answer each of these questions provided Brescia with a clearer understanding of the objectives, opportunities, risks, financial implications and priorities of modernisation. Specific initiatives being developed, implemented or piloted include:

- Digital Signature – already implemented internally by early 2004, and to be extended externally.
- Directory – existing application to be upgraded with additional functionalities.
- Handheld communication – pilot completed with all members of the cabinet and some members of the e-board; now being extended to all senior managers.
- E-procurement – basic functionalities implemented, now considering a full rollout with additional functionalities. (As at December 2003 more than four calls for bids had been completed, all showing promising cost reductions. Moreover Brescia has implemented a single supply service centre model by aggregating its purchasing function with those of other local municipalities. A common marketplace implementation has been already launched to meet increasing demand for 'easy' procedures leading to low-cost purchasing.)
- Video conferencing – pilot implementation plan being created. Brescia will propose to Lombardia Regione and the other provinces in the region that they implement an inter-provincial video conferencing solution to be used for regional meetings on specific sector-related topics such as education, labour, agriculture, infrastructures, and so on.
- Online communication – pilot project to be launched in 2004.
- Requests and authorisations for travel, holiday and permits – pilot project on basic functionality (non-back office integrated) to be launched in the first half of 2004.
- Expense reports – same as above.

CONCLUSIONS AND LEARNING

OUTCOMES GENERATED BY BRESCIA'S WORK

Learning from the Business Case

The development of a business case to support the modernisation of Provincia di Brescia's Intranet and Internal Communications programs is the most tangible outcome from the past six months' work.

The analysis carried out during the Reality Check exercise generated a number of significant opportunities and risks. In particular, the savings that will be achieved by implementing applications such as e-procurement and employee communication are expected to be enormous. On the other hand, in order to reach 100 per cent compliance among employees, a special focus will have to be kept on the area of change management, as well as on developing an efficient process re-engineering approach.

More generally, Brescia's work has established the financial cost and savings associated with the full deployment of modernised working practices within the employees' Intranet. The impact of these findings has been considerable.

- First, the findings helped move Brescia's understanding of modernised working from an option for a relatively small number of managers, to one that could apply to the majority of the workforce on a formalised basis.
- Second, net benefits of €2.8 million from e-procurement and employee communication are only the first step. A chain reaction will need to take place at each office and division within the Administration, in order to make sure Brescia benefits fully from modernisation.

The work done to identify opportunities to e-enable internal service delivery made a valuable contribution to the understanding of what e-delivery could mean. The analysis moved the debate beyond simply digitising existing manual processes. Instead the members of the e-board looked creatively at opportunities to remove unnecessary steps from administrative and internal communication processes.

A proper focus on the development of a competencies model around modernisation and e-government is the next step Brescia needs to take. Failure to do so will result in low usage of the applications developed and in a lost opportunity for modernising Brescia's processes.

More generally, the work of the e-board has helped to cement the relationship between Brescia's IT Department and the various offices that participated in the planning exercise. This is the first step towards the creation of an integrated governance model within the Province, which is needed to increase the organisation's level of 'net readiness'.

Business Transformation

The business case confirmed a piece of learning that has been stated before but is worth reiterating. The modernisation business case is not about putting forms on the web, watching videos online, using mobile devices or having colleagues work from home. It is about achieving profound business transformation through carefully managed organisational change. There is nothing particularly radical in this statement other than that the words are now grounded in a detailed business case whose scope and scale constitute a complete transformation for Provincia di Brescia.

Partnership Working

The business case for modernisation was built with contributions and support from Cisco Systems. At key stages in the process the assumptions and analysis underpinning Brescia's business case were scrutinised and challenged by experts from Cisco's Internet Business Solutions Group. This ad hoc input from Cisco was underpinned by Brescia's 'trusted advisor' relationship with Cisco Systems.

While Cisco offered specific guidance and solutions at various stages, possibly of even greater value was the ability of both parties to leverage the work Cisco had previously completed with a number of European local authorities such as the London Borough of Hillingdon.

The single most important learning point has been to reinforce the message that the value of genuine partnerships (as opposed to purely customer/supplier relationships) is generated by the commitment of both parties to delivering the desired objectives.

Outputs from the Business Case Process

In addition to a range of learning outcomes, a number of tangible outputs have been generated by Brescia's business case process. Specifically the following reusable tools and techniques were devised, and will be available as reference for other Italian Public Sector organisations seeking to embark on modernisation programmes:

1. A diagnostic tool to assist analysis of modernised working opportunities and to categorise e-delivery options.
2. A ROI model for modernised working populated with costed assumptions and variables. This was taken from Hillingdon's experience and applied to Brescia's needs.
3. A generic E-Services Prioritisation Model to assist decision making and the allocation of resources to modernisation initiatives.

Finally, a great deal has been learned from the four-step business case process itself. The involvement of senior managers in the analysis is vital for the generation of innovative opportunities. And finally, good preparation, handling and analysis of data are vital to the success of the overall process.

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