executives are becoming painfully aware of the importance of managing unstructured data. Stories such as a SEC probe that resulted in a $10 million fine when the company did not produce all relevant documents until two years had passed are being discussed over executive lunches. So senior management is ready to consider a solid business case for investing in ECM. Your job may be to build and present this case.

This article focuses on developing a credible, thorough business case that addresses strategic benefits as well as productivity improvement and operational savings. At the end of the article, you will find several case studies, some more detailed than others.

First, let’s clarify what we mean by ECM. AIIM defines Enterprise Content Management as the technologies used to capture, manage, store, preserve, and deliver content and documents related to organizational processes. ECM tools and strategies allow the management of an organization’s unstructured information, wherever that information exists.

**COST JUSTIFICATION MYTHS**

Before you begin to build a business case, here are some myths to confront:

- Soft dollar savings don’t interest senior management. Wrong: executives know better than anyone that keeping pace or passing the competition in their ability to respond to customers is critical and worth investing in.
- The cost for ECM technologies is too high—my company can’t afford it. The real question should be: how much does it cost to do business using our current processes? How do you know if investing in ECM is too high if you don’t know what you’re spending today?
- Costs for storing information continues to decrease, so there’s no problem with keeping files for years. The reality is that while storage media costs continue to decline, IT staff costs continue to rise. According to Storage Research, an information technology research firm, for every $1 per megabyte spent on disk storage, the total spent in managing that storage ranges from $3 - $8 per megabyte per year. Other studies put the total cost of managing data storage at 3 - 10 times the cost of storage hardware and media. (Consider the productivity cost every time an employee has to search through thousands of inactive files to find the important ones.)

**BUSINESS CASE DRIVERS**

Consider *strategic direction* and *tactical savings* as the highest levels of categorizing business drivers for investing in ECM. Strategic direction may include:
• Enhanced customer service
• Products/services to market faster
• Consistency across your product lines/brands/contracts
• Preserve market share
• Gain new markets
• Create or renew competitive edge
• Contribute to regulatory compliance
• Protect intellectual assets
• Capture/share institutional knowledge

Tactical savings derive from:
• Eliminating bottom line operational costs
• Funding: collecting revenues faster which provides cash flow and the opportunity for increased revenue from short term investment
• Managing/delivering corporate content. A Microsoft ECM white paper stated: “Accenture’s analysis also shows that dealing with this rush of data represents a significant and often hidden expense—Global 3000 organizations spend between 3% and 5% of their revenue managing and delivering corporate content. For a company with $1 billion revenue, this translates to $35-50 million dollars annually.”

Under the umbrellas of strategic direction and tactical savings, our consulting experience has convinced us that there are four major categories for building a business case. Many business cases will contain all four:
1. Customer service
2. Compliance and risk reduction
3. Productivity gains
4. Operational cost reduction

Customer service and productivity gains are proactive and add to the bottom line. Compliance, risk reduction, and operation cost savings focus on saving money or avoiding penalties.

Customer Service
The important issue here is to identify and quantify how customer service is being delivered without ECM. You do that by analyzing current business processes and assigning costs to each major step. Quantify labor costs and also gaps in response time and lost revenue. Add opportunity costs such as bringing new products/services to market faster and making them available online.

Case Studies
Here are some abbreviated case studies for ECM. You’ll notice that they include both hard and soft dollar benefits.

INSURANCE
• Independent medical examiners used to deliver medical reports via paper documents in the mail to insurance carriers; cost per report was $67
• Implemented ECM with digital signature software
• ECM system provides electronic certificate containing doctor’s name, professional credentials, and authenticates the doctor as the signer
• Cost per report is $28.50
• Turnaround went from 21 days to 9.5 days
• Also eliminated $500 cost per week to replace lost or damaged reports

MANUFACTURING
• Problem: hundreds of servers installed, difficult for users to find content they needed to respond to customer needs (product manuals, training material, product information, etc.).
• Chaotic situation which the client described as “out of control.” Masses of documents stored on 100 servers with several GB each were not managed: no change procedures, no version control, and no security.
• Today 10,000 ECM users, located throughout the world. Half of them provide customer support and fill field services roles: software engineers, application developers, product specialists, trainers and sales people.
• Implemented a sophisticated ECM system with excellent library services. It manages Web pages as well as documents.
• Response to customers has gone from days to minutes.
• Solved several Web-related problems: broken links, missing graphics, servers no longer in service.

FORTUNE 500 COMPANY
• Wrongful termination lawsuit.
• Subpoenaed for all related records.
• Printed all emails for the past four months.
• Reviewed the messages manually, which took weeks.
• Non-reimbursable cost to review them was $750,000.
• Settled out of court.
The strongest business case for improved customer service may be based on analyzing what your competition is offering. Your case may be as simple as: that’s what XYZ is doing, and we have to offer at least the same level of service to remain competitive.

We recommend working with Marketing to project increased revenue through improved customer service. For example, if Marketing thinks that sales would increase 1% or $1 million annually, from delivering Web-based content/services, or delivering new products faster, we suggest you use a portion of that number in your business case, erring on the side of being too conservative, since the increased revenue may not be totally attributed to new technology. Be sure to explain how you based your numbers on Marketing’s projection when you make your presentation.

For government agencies, include providing the public electronic access to information they traditionally had to request in person; and consolidating services that used to be disbursed across departments, resulting in improved services and salary avoidance.

**Compliance and Risk Reduction**
Compliance with laws and regulations that address information management is not a business choice. It’s a necessity. Every organization is required to retain specific types of records (frequently, unstructured data) for specific periods of time. And to produce them, if directed to do so.

ECM supports compliance by organizing documents, providing version control, and facilitating retrieval, should you be required to produce a subset. On the other hand, organizations have the right to dispose of records that have met their legal retention period and are no longer needed for business purposes. Courts understand that it’s cost prohibitive to keep everything forever. ECM can equally support records disposition, assuming that records management functionality is included in the product.

Electronic discovery for litigation falls under the risk mitigation argument for investing in ECM. More and more frequently, courts are requiring organizations to produce electronic records in their original format—think email. Powerful search engines that come with many ECM solutions save organizations thousands of dollars in discovery costs as well as reduce the likelihood of fines, which can be in the millions.

**Productivity Gains**
You can survey all or part of your user population

**FINANCIAL SERVICES**
- Cost center managers access real time custom financial analysis to manage money.
- Create custom reports.
- 50 cost managers spent 2 hours/week searching for information that was often outdated.
- Manually compiled financial data, corrected errors, filled 50 300-page binders and distributed them, took 100 hours.
- New system was developed in 5 months—interfaced with database application.
- 3 year system cost was $1.2 million.
- Payback was less than one year; 3 year savings was $3.7 million.
- Benefits: real time financial analysis, seamless integration with database, focus on core job, staff productivity improvement, $1 million a year.
- Tactical annual savings: no more binders, $51,000; reduced training time/costs, $123,000.

**PHARMACEUTICAL**
- Justified $1,000,000 ECM system in one year by bringing product to market 3 months faster than anticipated.

**OIL AND GAS**
- Safety was primary motivation for investing in ECM.
- Regulatory compliance was second reason.
- Operational necessity: shut down means losing $100,000 a day.
- Space savings in field/offshore platform locations.
- Improved interdepartmental communication.

**LITIGATION – EDISCOVERY**
- Power company spent $15 per page to locate and produce subpoenaed documents; cost is $4 per page with ECM system.

**ENGINEERING**
Strategic goals and directions:
about the time they spend searching for information: on portals, shared drives, on hard drives, laptops, and in archived paper boxes. It’s straightforward math to multiply an average number of non-productive time spent searching by the number of employees by their different hourly cost.

Productivity can apply to individuals, groups, or business units. Gains typically come from:

- Time compression, collapsing the time for a transaction, activity or decision to be completed – which may also result in hard dollar savings if revenue is improved
- Reducing time spent on unproductive activities, mainly searching for information
- Consolidating/eliminating activities
- Enabling new activities resulting from more available time and from consolidating information that used to be fragmented— useful to identify when you promise to save 20% of staff time, so management knows how the freed up time will be spent
- Content reuse, eliminating the need to redevelop it again; encourages consistency
- Improving the quality of work by providing consistent methods for accessing and processing information/transactions
- Directing relevant information/content to the right people when they need it
- Better information control: security
- Improved morale, less turnover

Operational cost reductions are also referred to as hard dollar savings, a favorite of controllers. Categories include:

- Copying
- Postage
- Courier services
- Offsite storage
- Filing cabinets and supplies
- Salary avoidance: if new positions are included in the budget
- Eliminated positions
- Overtime
- Temporary staff
- Rental costs for office space
- Microfilming, staff and equipment

LESSONS LEARNED
Meet with the financial officer before you develop your business case to discuss acceptable and unacceptable criteria for cost/benefit analyses. This step can

- Greater customer satisfaction by increasing responsiveness, leading to more follow-on work.
- Higher quality deliverables, providing a competitive advantage.
- Greater consistency of style and substance among offices.
- New product/revenue opportunities.
- More space available in libraries and offices.

Productivity gains and hard dollar savings estimated at $1,600,000 annually, based on:

- Reduced staff time searching for files – see following table.
- Reduced staff time re-creating lost files.
- Reduced travel for review meetings.
- Reduced staff time troubleshooting print jobs at remote offices.
- Reduced time and money for faxing and overnight deliveries estimated at $157,000 annually.

Staff spent non-productive time browsing through long file folder hierarchies, searching for files.

According to the survey, Engineers spent approximately 18 minutes per day searching for files.
save you weeks of time and as importantly, considerable embarrassment if you miss the mark in front of management. Do not assume because the sponsor is convinced of the value of ECM, that his/her colleagues agree. Most consultants sheepishly tell war stories about how their recommendations were shelved or rejected because one or more managers required concrete business reasons to justify the proposed system—something the consultant assumed had already been accomplished.

The following outline contains major topics to include in a sound business case.

- Strategy for managing information
- Conceptual system design
- Payback analysis: costs and benefits
- Potential impact on the business
- References from other organizations, preferably in your industry
- Risk analysis
- Staffing and ongoing support requirements
- High level implementation plan

Strategic ECM installations are rarely found in a single department. To achieve full impact, they are often integrated with mainstream information systems and bring together information that traditionally has been dispersed among several media: paper files, internet and intranet sites, microfilm, online systems, handwritten notes and logs, etc. Strategic systems reap the hard and soft dollar benefits of archival and file retrieval systems. However, they make a much bigger impact on the bottom line than either of those two by streamlining and facilitating information access that is critical to business processes. Senior management always sponsors enterprise systems due to the commitment required and the costs involved.

Costs
As a general guideline, plan on spending 2-3 times the cost of the software to acquire and implement ECM. Costs fall into three major categories: one time costs, ongoing costs, and conversion costs. (Conversion costs are in addition to the 2-3 times guideline mentioned above.)

One Time/Acquisition Costs
Include the following costs:

- Project team conference registrations, visits to customer sites and travel expenses (this may come

<table>
<thead>
<tr>
<th></th>
<th>Minutes/week recreating files</th>
<th>Total FTE/year recreating files</th>
<th>At average salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support staff</td>
<td>15.5</td>
<td>0.52</td>
<td>20,761</td>
</tr>
<tr>
<td>Engineer</td>
<td>4.1</td>
<td>2.34</td>
<td>200,661</td>
</tr>
</tbody>
</table>

= $221,422

The pilot implementation for 30 users cost approximately $150,000, including hardware, software, and maintenance. Payback occurred within 15 months.

CITY GOVERNMENT
- Maps, drawings, office documents.
- Provides public access to information via internet.
- Interfaced GIS with ECM to retrieve maps, drawings, and documents by geography.
- Contractors and developers submit plans electronically.
- Benefits
  - Supports knowledge management, important with many key people retiring
  - Repository supports full text search, version control, and workflow
  - City is growing, must automate manual processes
  - Streamlined internal approvals using workflow
  - Operational savings: reduced costs by automating paper processes
  - First two phases cost $900,000, including $300,000 for conversion and $200,000 for four new positions
- Payback in 2.5 years

COUNTY GOVERNMENT
The following table summarizes ECM benefits into three categories from a county government installation.
from a different budget than your project—a training budget, for example)

- Hardware
- Software licenses
- Network upgrades
- Integration fees, customization fees, application development fees
- Consultant fees
- Training
- Documentation
- Conversion costs
- Facility improvements
- Furniture

**Ongoing Costs**

- System maintenance is the most obvious cost, typically 18% of total system cost.
- Fees for application development may be applicable if you plan to add new user groups once the original applications are stable.
- Dedicated or part-time staff to support the system: system administrator, part-time database administrator, Web master, scanning/indexing staff, quality control/supervisor.
- Vendor help desk support (typically included in the 18% maintenance).
- Continual education for ECM staff.
- Supplies consist mainly of storage media.

**Conversion Costs**

Anyone who has undergone a conversion of paper documents will advise you not to convert if there is a choice. The process is labor intensive and expensive. However, your ECM system may not be effective for many years unless you convert all or portions of existing files, leaving you no choice, particularly if you have based your business case on electronic access to existing files. Conversion costs can be considered one time or ongoing, depending on your approach.

One of the most challenging conversion projects may be identifying and migrating a subset of content from shared drives to your ECM repository. Migrating files without organizing and applying metadata is simply automating a mess. We suggest using software that crawls through your drives and finds content that meets criteria you’ve established. Cleaning up shared drives can be just too big a job without technology. But don’t rely on software alone—human validation is important for quality control.

**SUMMARY**

Controllers and financial planners are paid to ask, “Why should we invest in ECM when we could be using that money for ______?” Your business case and risk analysis should respond to that question by providing insight about alternatives to the proposed technology and asking, “What if we don’t invest?” How will we maintain market share? Will we need to hire more engineers and clerical people as our business expands? What are the ramifications for compliance, quality, ISO or other certifications?

When you’ve answered these questions and drafted your slides, rehearse your presentation with a small group of people who will give you honest feedback, along with their support and encouragement.

Addie Mattox is a partner of @doc, a consulting firm specializing in information management compliance and document-related technologies. Addie is co-author of the Information Management Compliance Warrior online training program. She can be reached in Northern California at 510 – 757-8559 or via email at amattox@atdoc.com. She assists user organizations to define their requirements for information management, review product solutions, and plan for implementation.
<table>
<thead>
<tr>
<th>Benefits</th>
<th>Cash Flow</th>
<th>Strategic</th>
<th>Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced shipping costs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduced printing, paper, copying costs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical space savings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff elimination</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduced outsourcing costs</td>
<td></td>
<td></td>
<td>•</td>
</tr>
<tr>
<td>Staff &amp; taxpayer feedback</td>
<td></td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>Formal approval, control, access, and lifecycle management of county content</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimized public notice access time for time-sensitive materials</td>
<td></td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>Consistent look &amp; feel of sites</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>User ownership of content and its freshness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower costs for site design, maintenance, and administration vs. homegrown solutions</td>
<td></td>
<td>•</td>
<td></td>
</tr>
<tr>
<td>Automated content renditioning to HTML and PDF formats</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduced number of calls</td>
<td>•</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improved staff efficiency – employee and taxpayer 24x7 self-service access to content, files, forms</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: META Group