# Conservation Business Process Model

## Why the Open Standards and supporting technology are critical for an effective conservation organisation.

| | |
|---|---|
| Purpose | This Business Process Model depicts conservation projects within the broader organisational context. It uses a "swim-lane diagram" to show the key steps in the core business process of conservation, alongside steps occurring in other supporting business processes. The model illustrates the conservation project information that needs to flow across to other business processes in order for all processes to run efficiently. It also identifies the typical organisational decisions that need to be made at project and portfolio levels, and shows the information that supports those decisions. It makes the case that investing in technology to support management of project information is critical, and that doing so makes other business processes more efficient and effective. |
| Who should use this, and with whom? | Integrators / M&E staff, with people in systems or support roles in other parts of the organisation. |
| When | In discussions about how to improve the flow of information between areas and how to improve workflow efficiency and organisational effectiveness. |
| How | Use the model to explore what information is required by people working within each business process, where that information is (or should be) stored, and how to get the information moved from where it's stored to where it's needed, efficiently.. |

Annette Stewart - Fulbright Scholarship 2016

**Improving the *practice* of conservation**
**by improving the *management* of conservation**

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# Conservation Business Process Model

A key finding from a recent study of practices revealed the low level of awareness of the broader business benefits available through use of Open Standards. However once these potential benefits are demonstrated, the level of interest increases significantly amongst support staff and organisation leadership. A further finding was that there is even less awareness of the opportunities for, and benefits from, storing conservation information in systems and integrating that information with other business systems to support management decision-making.

This report aims to portray conservation work within its broader organisational context, by describing the key interactions with other business processes such as fundraising, finance, and people management. It outlines the benefits that can be obtained by identifying and streamlining the information flows between these processes. This analysis builds on the Open Standards which aim to improve the *practice* of conservation, and extends its concepts to show how it can also improve the *management* of conservation.

The report is targeted primarily at "integrators", often Monitoring & Evaluation staff, who are looking for ways to improve the efficiency of their organisation.

## Key Business Processes and information flows

The diagram below is a "swim-lane" view of the key business processes operating in most conservation organisations. The processes are implemented in different ways in each organisation, however viewing them at this high level of abstraction helps to reveal the key information flows and inter-dependencies.

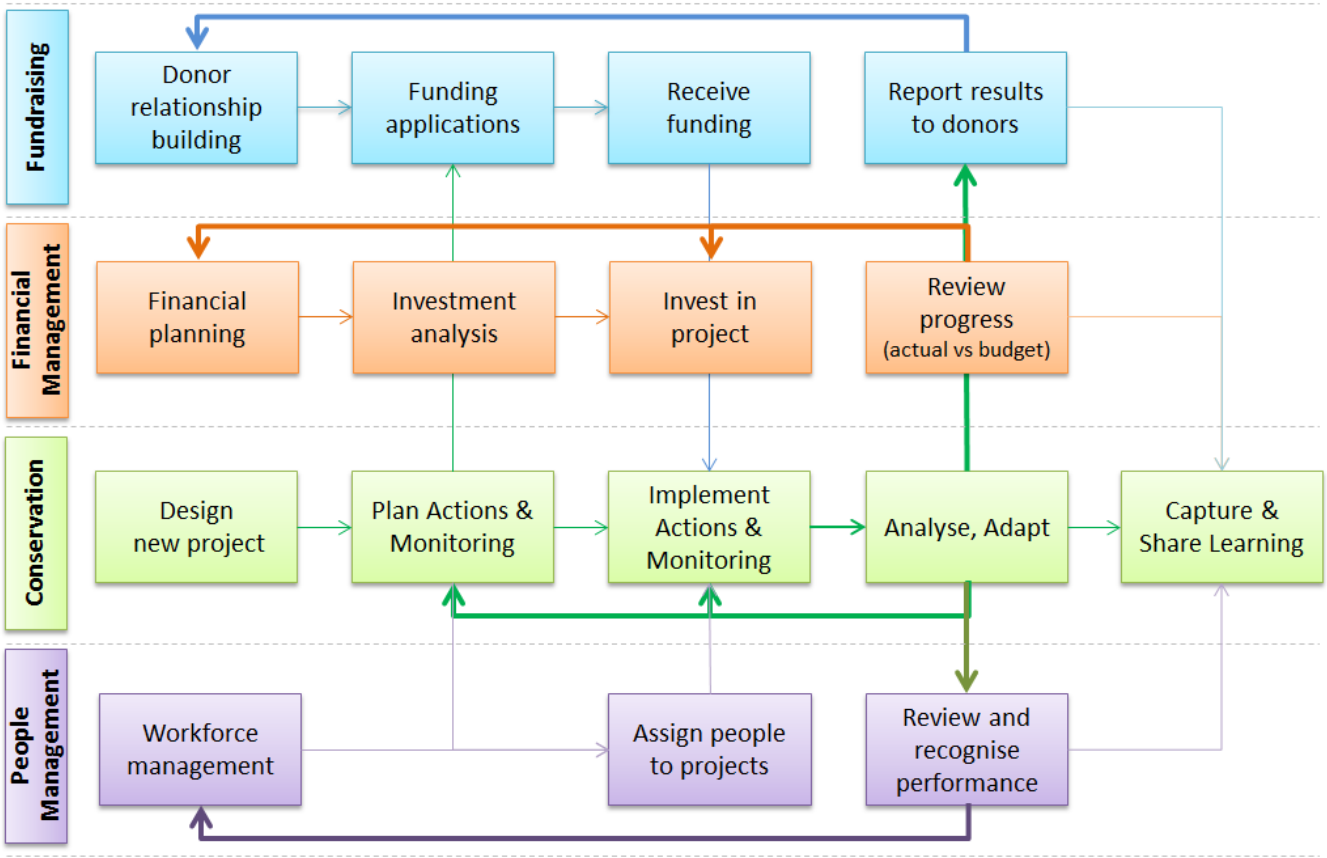


Figure 1 Conservation Business Process Model

Conservation management is seen as the core business process. This high-level view shows the key steps in managing conservation projects – based on the five steps of the Open Standards. These steps interact with the other key business processes that support conservation work – people management, financial management and fundraising. These processes perform a wide range of functions, however for simplicity reasons only the key conservation-support functions are depicted here. Also for simplicity reasons, the model is stated in terms of a project, which is the base level work of most conservation organisations; similar concepts can be applied at higher levels of abstraction, such as programs and portfolios of projects.

The information flows within and between these business processes are described below. In summary, the analysis shows that, for all processes to run smoothly, the flow of information *between* processes is as critical as the flow *within* processes. In addition, overall organisational effectiveness depends on information passing back along the feedback loops (the thicker lines); all feedback loops start with the analysis of project progress against the expected results[1].

### Key information available from the core process - Conservation

- The Conceptualise phase (OS Step 1) produces information about a project's context - its scope, vision and conservation targets, plus analysis of the broader socio-political situation.
- The Plan phase (OS Step 2) produces strategies and their theory of change, the monitoring required, and a high-level workplan and budget; these key details inform initial investment decisions.
- The Implement phase (OS Step 3) performs the planned actions and monitoring.
- The Analyse / Adapt phase (OS Step 4) is performed regularly to review the monitoring data against expected results, to assess progress, and determine any adaptations required to the plan.
- The Share & Learn phase (OS Step 5) is performed periodically to capture and share the projects experiences and insights.
- Note that a more detailed model would show the critical decision points required between each of these phases, using information contributed by all business processes.

### Fundraising Process - information usage

- *requires* a clear project plan that shows what the project aims to do, and why, as well as the results expected and how they will be measured;
- *uses this information to* match the project's work with the interests of potential funders, and then to liaise with donors to apply for and manage funding;
- *depends on analysis of project results* to report back to funders on the results being achieved relative to those expected, and to create stories that generate broader interest in the project and organisation;
- *which in turn provides the critical feedback loop* that maintains donor relations and builds the organisation's reputation for results, increasing the probability of future funding.
- *Key impact* from poor information flow into this process is that fundraisers need to spend considerable time locating and interpreting project information in order to liaise with potential donors and make funding applications; they also struggle to keep donors informed of project progress and results.

### Financial Management Process - information usage

- *requires* a clear project plan that shows the investment required by the project, over the timeframe necessary to produce the project's expected results;
- *uses this information to* analyse the investment opportunity, relative to the organisation's other funding needs and income potential, over the term of the project. This analysis, along with related

[1] "Results" in this context means the regular review of outputs and outcomes from the project, relative to the expectations defined in the project's theory of change, and taking action based on the findings; i.e. results-based management, or adaptive management. It is not about whether the project "worked" or "failed".

information from other processes, informs the key organisational decision to invest in the project, using current and/ or new funding;

- *depends on analysis of project results* to understand the project's performance (such as actual vs budget) relative to the results expected from the investment;
- *which in turn provides the critical feedback loop* to inform decisions on continued investment and for managing the organisation's short-term funding commitments and longer term financial plans.
- *Key impact* from poor information flow into this process is that budgets are poorly aligned to the work of the project (e.g. budgets are short-term and reflect actions or just expenditure types, rather than expected results), making any investment analysis difficult and limiting any insight that can be drawn from analysing financial status (actual vs budget).

### People Management Process - information usage

- *requires* a clear project plan that shows the resources required by the project – in terms of skills, roles, and numbers – and the results that those resources will be aiming to achieve;
- *uses this information to* help identify and allocate the right quantity and quality of people to the project, often including staff as well as volunteers;
- *depends on analysis of project results* to support objective performance appraisals, identify development opportunities, and recognise & reward individuals and teams;
- *which in turn provides the critical feedback loop* contributing information to broader workforce planning for the skills, roles and competencies required to achieve the organisation's mission.
- *Key impact* from poor information flow into this process is that the resourcing needs of the project are difficult to understand and therefore difficult to meet, and the subsequent performance appraisals have to be made independently of insights into actual project results.

### Conservation Process

- *requires* all of these inputs – people, funding and financial management – to ensure the project is appropriately resourced so that it can deliver the results expected
- *depends on analysis of project results* to adapt the project's actions based on what's working and what isn't (i.e. adaptive management);
- *which in turn* triggers the next iteration of the process, and the continued flow of information into the other business processes as the project progresses.

In an ideal world all of these information flows would be streamlined and supported by integrated systems, so that the required information is readily available to all who need it. In reality, much information is held in separate systems that are not easily integrated, and in the case of the conservation process, much information is not systematised at all in many organisations. The result is that the flow of information depends on manual effort – people manually seeking, sending and re-entering information. Workflows are much less efficient than they should be. Regardless of these inefficiencies, this manual effort and interaction has positive benefits in terms of collaboration and team endeavour; systematisation of the information flows simply aims to remove the inefficiencies so that these personal interactions can focus on the content and quality of the projects.

Note that the "white space" in the model is important - it identifies critical dependencies. For example, note the gap between the last two steps in the Fundraising process; this process cannot run to conclusion under its own steam – it requires an information flow from the conservation process. It is impossible for staff in the fundraising process to operate at high levels of productivity and effectiveness if the conservation process has not systematised its information. Similar gaps and impacts exist in the Finance and People Management processes.

## Management expectations vary across Business Processes

The situation is further complicated by differing conditions and expectations within each of the business processes, in terms of the work practices used, the systems supporting those practices, and the internal and external reporting expectations. These are described below and summarised in the associated graphic.

- **Fundraising management** processes have built up over many decades of experience, with learnings and innovations shared across all not-for-profit sectors, primarily through regular movement of people between sectors. There are no formal or regulated "standards" for fundraising practices, however fundraising staff depend on each other to share information about donor interactions and opportunities, and hence peer-support results in common work practices and shared information. External agencies that review and rate not-for-profit organisations apply particular scrutiny to fundraising performance, which reinforces the need for efficient practices. In terms of systems, fundraising functions are quite well supported; technology systems for donor management have been able to leverage related functionality built into Customer Relationship Management systems in the for-profit sector. There is also broad acceptance amongst organisation leadership that fundraising success depends on investments in technology; the leadership of even small not-for-profits understand that they need to invest in systems to support their fundraising efforts. There are high expectations for internal and external reporting of the efficiency and effectiveness of the fundraising process.

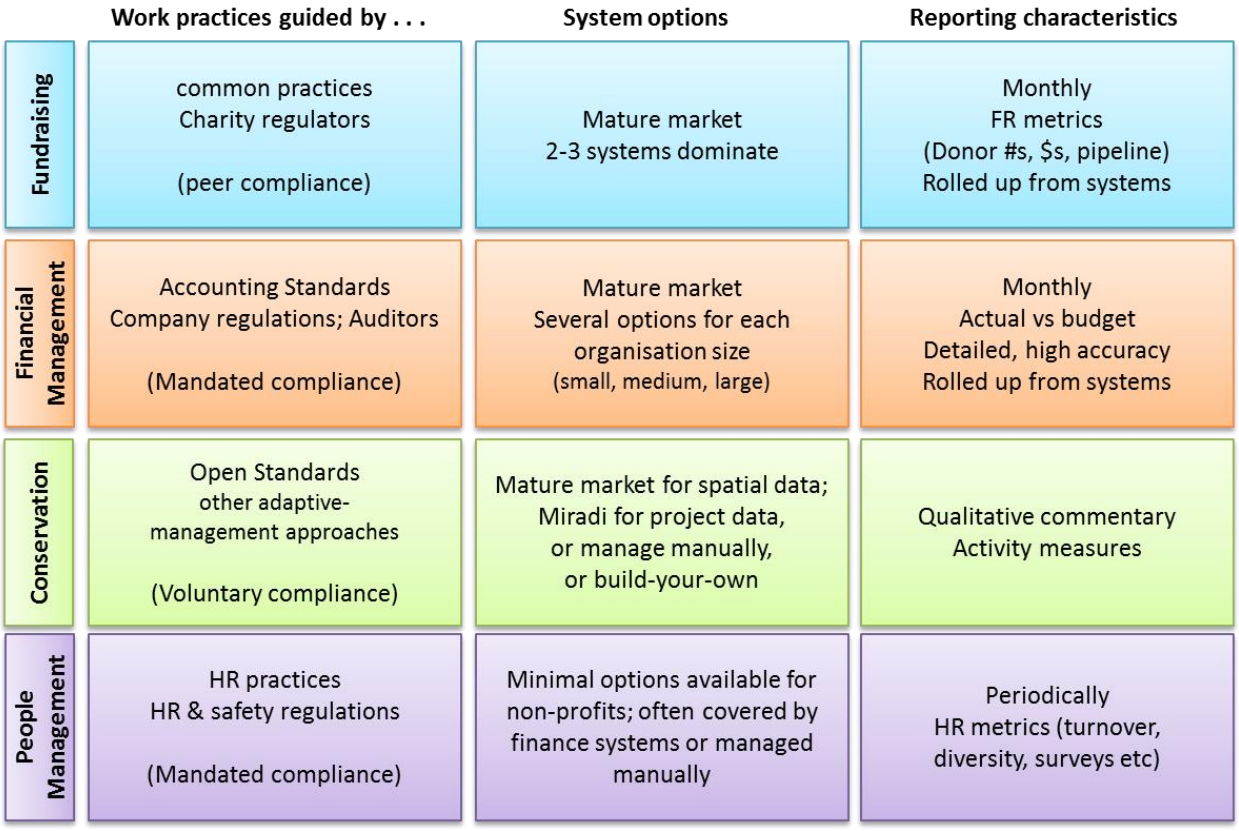


Figure 2 Management expectations across business processes

- **Financial Management** processes have built up over centuries, and are governed by globally-agreed accounting standards and regulations. Compliance is routine, and regularly reviewed through internal controls and external audits. All organisations, in for-profit and not-for-profit sectors, are expected to closely manage their finances and accordingly there is a large market that supports a range of finance systems for organisations of varying sizes. Internal and external reporting is routine, regular and

defined through standards; there are high expectations of timeliness and accuracy; processes and information are audited regularly to ensure processes are followed and standards are met, and to confirm that there is consistency between high-level reporting and low-level information.

- **People Management** functions have built up well-defined "best-practice" processes based on decades of experience across for-profit and not-for-profit sectors. Some of these functions have firm regulatory requirements (e.g. safety standards), while others require compliance to ensure smooth operations of functions such as recruitment and reward systems. HR systems exist in the for-profit world to manage related information, however there are relatively few system options available to small-scale not-for-profit conservation groups. Consequently, much of this information is managed manually, with some (e.g. payroll) managed through finance systems. Regardless, HR managers are expected to track and regularly report key metrics that help the organisation manage and develop its people.
- **The Conservation** sector, by contrast, is relatively young. Introduction of the Open Standards over the past decade has provided a comprehensive "best practice" process, however usage is voluntary and consequently it is not yet widely followed. Systems support for the sector is very limited, with the exception of Spatial Information Systems (GIS) where the sector's needs coincide with for-profit industries such as resources and defence, and consequently there is an active market to develop this technology. The Open Standards is differentiated from other adaptive-management processes in that it codifies much of the common conservation project information, and provides a system to manage this information (Miradi and Miradi Share). Many organisations are unaware of the availability or value of this information management capability, and continue to manage information manually in static documents or dispersed datasets; those who have ample resources are attracted to "build their own" systems. Largely due to lack of understanding of the value of information, and low awareness of the available systems options, reporting expectations are relatively relaxed and qualitative commentary is often viewed as sufficient; any quantified metrics are generally limited to reporting activity or outputs, and rarely focus on tangible results or impact.

This comparison indicates that the conservation process is lagging behind the "norms" in other business processes, yet it is the core business and the source of key information required by these other processes in order for them to operate efficiently. Any improvements to the conservation practices would have significant flow-on effects to the efficiency and effectiveness of these other business processes.

While conservation processes are not as efficient as they could be, they have operated this way for many years, with apparent success. Coupled with a lack of awareness of alternatives, this leads to high acceptance of the status-quo amongst practitioners and organisational leadership alike. The first step towards making any improvement is to change the perception that today's practices are "good enough", by outlining the increasing external expectations for high performance, articulating the benefits from improved practices and integration, and demonstrating a path to get there.

## Conservation systems are required for efficient information flows

Codifying and systematising conservation data is a key first step towards obtaining these benefits. Increased awareness of the need for improvement in internal operations, and of the options available, will likely lead to much higher expectations for routine, systematised, and accurate reporting of progress and results. Use of the Open Standards and its related systems offers a proven path for making these improvements.

One key factor contributing to current inefficiencies is the lack of investment in technology to support conservation information. This chart[2] shows the budget proportions spent on software licences by several small-medium sized conservation organisations; a very small proportion, only 15% goes towards conservation systems (most of which is for GIS spatial systems), despite this being the core business process. In for-profit businesses the majority of technology expenditure is focussed on the core business; businesses that fail to adequately invest in their supporting technology are often out-competed.

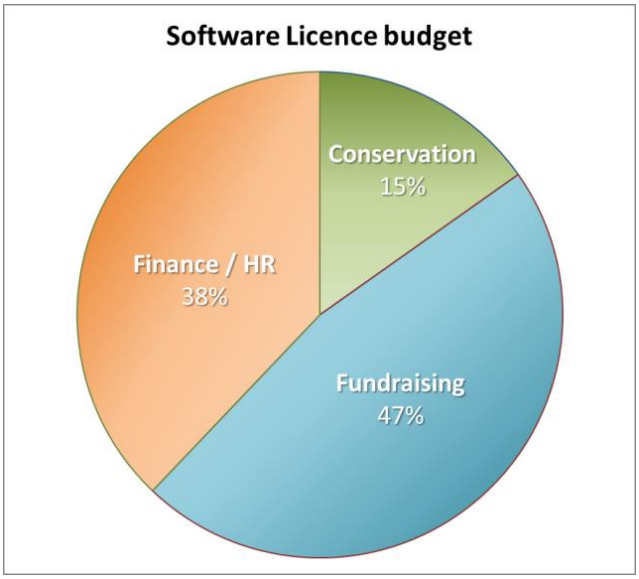


Figure 3 Technology investment by conservation organisations

This situation arises as a result of a number of factors –

- A perception that conservation software is just for specialists (e.g. a specialist uses GIS to develop maps for the team)
- Lack of time and training for people to learn how to use new technology
- Lack of awareness of the benefits that come from having data stored in accessible and sharable systems, rather than in static documents
- Comfort with defining projects in "the written word" in static documents, rather than as codified information that allows searching and sharing
- Acceptance that manual rework and low productivity is the norm – working harder not smarter is commonplace
- A broad perception amongst practitioners that "software should be free", which limits licences and constrains funding for enhancing the required systems functionality

In contrast, other areas of these same organisations, such as fundraising and finance, routinely invest in technology to support the efficient operation of their processes, and expect all staff to use the systems (and provide adequate training in order to do so). There is absolutely no perception that these processes could be adequately managed without systems. In addition, these areas don't contemplate building their own systems in-house – they purchase ready-made products and only if necessary, spend additional funds to make relatively minor adaptations to suit their unique needs.

[2] The chart data comes from a small sample size due to lack of accessible data, however the proportions have been regularly acknowledged as "probably about right" in discussions with many organisations. Some organisations have done their own internal analysis since this chart was published, and produced results significantly less than 15%.

## The Open Standards has supporting systems

The Open Standards software – Miradi – is used by many small organisations in less-developed countries, precisely where conservation needs are high. The map below indicates the location of people downloading the Miradi software over the past few years. These organisations struggle to invest in their internal capacity, to pay for software licences and the associated training required to make the best use of it.


Figure 4. Global distribution of Miradi users

Continued growth and improvement in software such as Miradi and Miradi Share is dependent on an active market of subscribers paying for licences to provide investment in continued development. However the current licencing business model relies on groups that do not have a history of investing in technology for conservation, or are reluctant to do so. This under-investment is constraining the pace at which the sector can improve its efficiency and effectiveness.

This situation is partly explained by the fact that many practitioners have learnt their craft without the support of systems. Consequently, they are more comfortable creating written documents rather than codified information.

A small survey[3] indicates that, when new practitioners are appropriately trained in developing projects using the Open Standards and Miradi, they are quite comfortable with codifying information and using systems to record and share the information. See results below.

[3] Survey of students, Monterey Institute on International Studies, December 2015

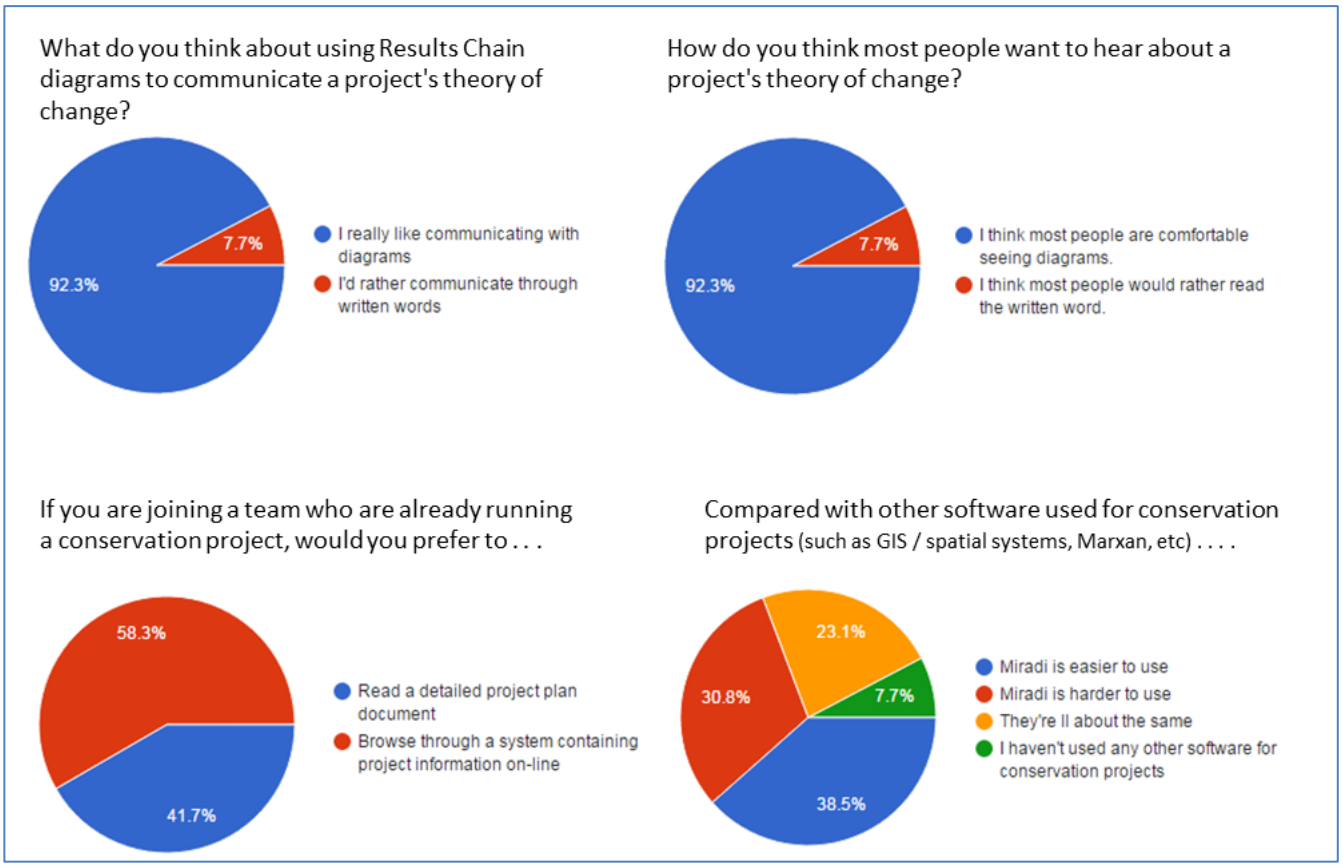


Figure 5 Survey of student perceptions

## Why does all this matter?

A small organisation, running only one project that does not need to be shared, probably doesn't need to bother with any of this.

But as soon as a project involves more than just a few people, information needs to be shared and decisions need to be made. And not just once, but continually during the life of the project. Conservation projects generally take many years to produce meaningful results and during this timeframe there is inevitable turnover of people; information stored in heads is lost. Even after the project has completed, its experiences should be made available so that the conservation sector can continue to learn what works and what doesn't. For any of this to happen efficiently, information needs to be stored in accessible systems.

The graphic below provides a further perspective on why information and technology matter.

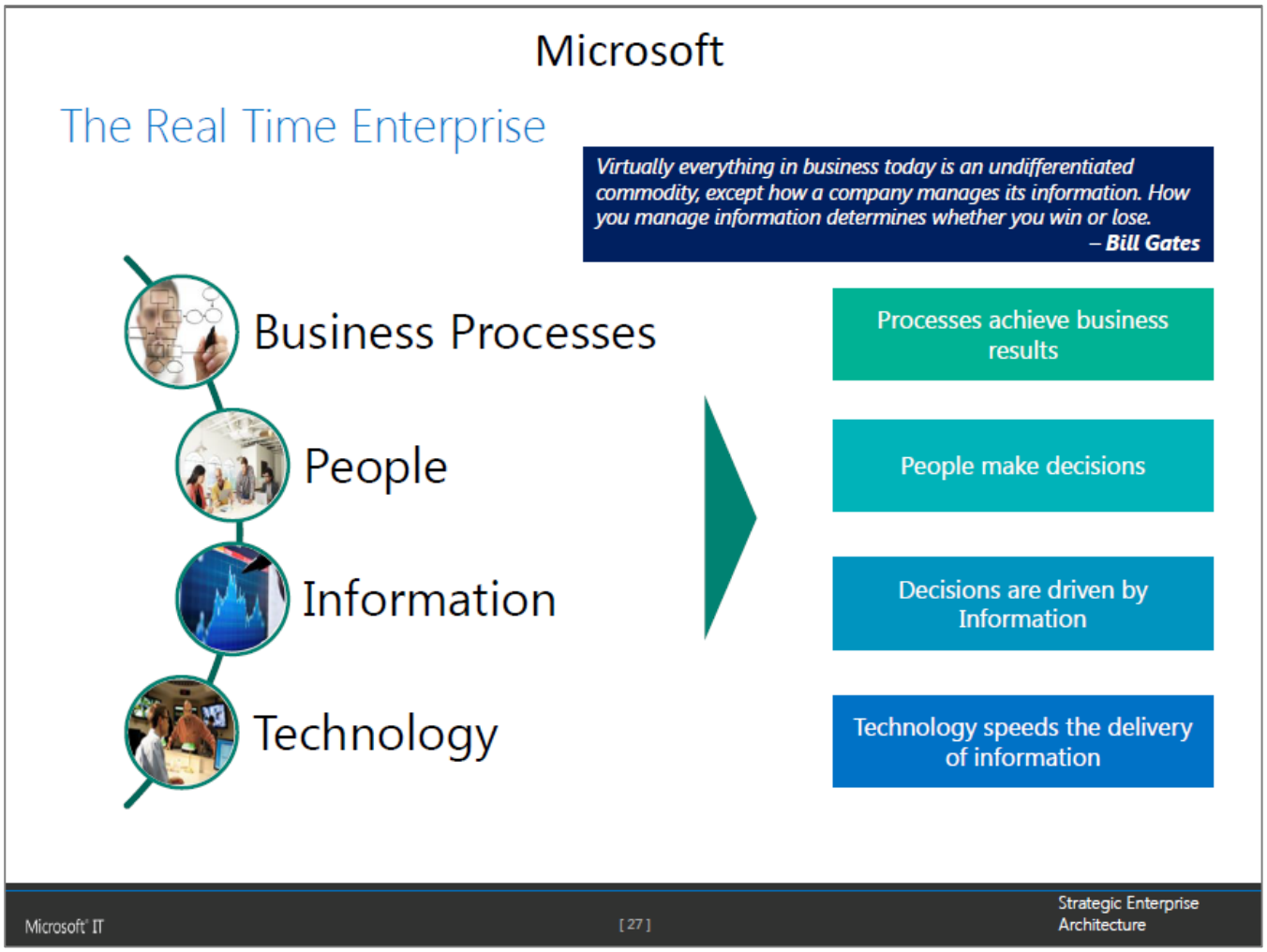


Figure 6 Why systematised information is important

## Towards an integrated Conservation Business Model

An integrated business model is achievable through a series of planned steps -

- Start with the core business – conservation. Adopt a proven process that allows key information to be codified, and has supporting technology to allow the information to be stored and queried; the Open Standards and Miradi meet these needs. This creates opportunities for consistent planning, implementation and analysis of projects, as well as adoption of standardised terminology that aids communication across the organisation. See **"Guide to Operationalising the Open Standards"** for further details (available on the Open Standards website).
- Quantitative information, such as financials, are most easily integrated across processes. This requires analysis of current budgeting processes to map information needs to those available through the conservation process, and deciding on options to streamline the flow of information. Conservation project budgets developed from project plans in Miradi can be exported and directly imported into financial systems. This allows creation of budgets that are aligned with achieving results, not just performing actions, which in turn helps with investment decisions and monitoring of progress.
- Fundraising processes can be streamlined once conservation project information is available in a consistent way. Mapping fundraising information needs to what is available through the conservation process informs development of standard reports or system queries to meet these needs. For example, a report of key project details helps fundraisers to match the project's needs with potential funding sources, and then to start conversations with donors. Those funders with specific application processes can be more efficiently catered for when project information is recorded consistently and available through accessible systems. Reporting on progress to these funders can be streamlined through further reports that pull out key information entered by project teams, for tailoring to meet the needs of each donor.
- People processes are made more effective when conservation projects provide the information required by common HR processes; this can be determined by mapping those needs. For example, project staffing and recruitment processes need to know the resourcing needs of projects, at least in terms of broad skills and capabilities, over the life of the project. Similarly, performance appraisal processes need details of the project's objectives to inform performance and development plans for the people and teams working on the project.
- Development of even a draft organisational dashboard can help to guide this work. The high-level metrics for fundraising, financial management and people management are usually well known and can start to be populated; the best metrics for conservation projects are not so easily determined or standardised, but having at least a placeholder on a dashboard will lead to conversations that will start to flesh this out. Key initial metrics could include the number of projects and their budgets, the number of Targets at different viability levels, the number of Threats being managed at different ratings, and the progress reports for key projects.

## Organisational Decisions and the supporting Open Standards information

Such a system, progressively implemented, would streamline workflows and provide integrated information to inform key organisational decisions and associated reporting.

The tables below provide illustrative examples of decisions made at the detailed project level, and then at the higher portfolio level, along with the Open Standards information that can inform those decisions. Some definitions[4] clarify the differences -

- Portfolio management is about doing the right things.
- Programme and Project management is still about doing things right.

### Project-level decisions

First, some illustrative questions relevant at the project, or building-block, level –

| Key Management Decisions at project / program level | Supporting Information from Open Standards |
|---|---|
| **Assess a new opportunity / project / program**<br>- Does this project contribute to our broader strategies?<br>- Is the Vision sufficiently visionary?<br>- What conservation values is the project protecting? Are they consistent with / complementary to broader programs?<br>- Is the project scope at the right scale to protect the targets?<br>- Is the project context realistic? Has it adequately considered the cultural, social, economic & political factors?<br>- Have key stakeholders and partners been identified? Involved?<br>- Step into each stakeholders shoes - are there potential adverse / unintended consequences and can these be managed? How?<br>- Are there any unmanageable project risks or constraints?<br>- Is it feasible for us to take on this project, or is someone else better placed to do so? | **Conceptualise Project** (OS Step 1)<br>- Planning purpose, Initial team, partners<br>- Project Scope and Vision<br>- Key Targets (biodiversity, human well-being)<br>- Project context (situation analysis) – key threats and opportunities, key stakeholders |
| **Review the Project / Program Plan**<br>- Are the goals clearly stated and easily understood?<br>- Are the expected results / Goals (Impacts) worth striving for?<br>- Is the theory-of-change robust, and achievable? Are results stated in terms of outcomes, not actions?<br>- Is the required investment appropriate given the Impact being sought?<br>- Can we resource the work over the project's timeframe (funding, people, skills, partner capacity)? | **Plan Actions & Monitoring** (OS Step 2)<br>- Action Plan - Goals, Strategies, Objectives, results expected and theory-of-change (results chains)<br>- Monitoring Plan – indicators and methods<br>- Operational Plan - high-level workplan & budget - resources ($s, people, partners), project timeframe<br>- (adaptations as projects go around the cycle) |

[4] PWC Global Project Management Survey

| Key Management Decisions at project / program level | Supporting Information from Open Standards |
|---|---|
| **Monitor Implementation of the Project / Program**<br>- Is the workplan focussed on the highest priority actions (e.g. as identified by threat ratings and target viability)?<br>- Are the required resources in place (quantity and quality)?<br>- Do our team members have enough time to do their assigned work (across all projects)?<br>- Do our partners have adequate capacity for their roles?<br>- Which parts of the project are on-track and on-budget, and what issues need addressing?<br>- Are measures being collected?<br>- Should Implementation continue? | **Implement Actions & Monitoring** (OS Step 3)<br>- Workplan & Budget allocations relative to Threat Ratings and Target Viability desired future ratings.<br>- Detailed Workplan (activities, responsibilities, timelines) across all related projects<br>- Budget ($s, people, partners)<br>- Progress reports for Strategies, Results Chains, Objectives, Goals<br>- Measures against Indicators<br>- Related Finance reports from Finance System |
| **Analyse progress of the Project / Program**<br>- Is the project achieving its planned results, and on-track to achieve its long-term impacts?<br>- What adaptations should be made?<br>- Are we meeting donor expectations?<br>- How can we help individual / team performance?<br>- Should we continue investing in this project? | **Analyse, Use, Adapt the project** (OS Step 4)<br>- Analysis of project results and assumptions<br>- Analyses of operational and financial data<br>- Record of discussions and recommendations for adaptations of the project plan |
| **Encourage a learning environment**<br>- Are lessons being respectfully, honestly, and transparently recorded and shared? | **Capture and share learnings** (OS Step 5)<br>- Key results & lessons<br>- Regular reports to key stakeholders<br>- Evaluations |

## Portfolio-level decisions

Different types of questions are relevant at the higher portfolio level; these decisions primarily use information to make choices on resource allocations and priorities, either rolled-up from detailed project-level decisions, or derived from higher-level strategy analysis.

| Key Management Decisions at Portfolio level | Supporting Information from Open Standards and *other systems* |
|---|---|
| **Setting Strategic direction** | |
| - Where and how can we make the greatest impact, consistent with our mission | - *Spatial analysis of biodiversity information to identify geographic priorities; market analysis of conservation pressures to identify thematic priorities; stakeholder analysis to identify gaps / overlaps / opportunities* |
| **Setting / Reviewing priorities** | |
| - Of our priority targets (species, habitats, locations), which are getting healthier, or not, and why?<br>- Do our partners have the capacity to deliver their commitments? | - Roll up of like-targets (via taxonomy), their viability and trend over time relative to expectations<br>- Progress reports |

| | |
|---|---|
| - Of our existing investments, which should continue, be expanded, be contracted?<br>- What new investments should we make? | - Program results obtained (progress on Goals & Objectives), and expected, relative to investment needs<br>- Program & Project proposals (Goals, theory of change, impact measures, total investment required) |
| **Resourcing the work** | |
| - What financial resources do we need to meet investments currently being made or planned, in all or parts of the portfolio?<br>• How are we progressing towards meeting these needs?<br>- What human resources do we need to meet investments currently being made or planned?<br>• How are we progressing towards meeting these needs? | - Roll-up of conservation program budgets into *Financial Plan*<br>• *Fundraising plan and progress against targets*<br>- Roll-up of conservation program assignments (numbers, roles competencies) into broad *Workforce Plan*<br>• *Workforce plan and progress against targets* |
| **Achieving & Communicating Impact** | |
| - For our priority targets (species, habitats, locations), what work are we doing, with whom, for what ends, and at what cost?<br>- Are our existing investments having an impact?<br>- What's the "elevator pitch" on the impact from each of our key programs? | - Roll up of like-targets (via taxonomy), related theory of change, partners and roles, Goals, budget<br>- Program results obtained (progress on Goals & Objectives) relative to expectations<br>- Program progress statement (drillable to detailed measures) |