

Using Indicators to Measure Sustainability Performance at a Corporate and Project Level

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ABSTRACT. More and more businesses are aligning their activities with the principles of sustainable development. Therefore they need to adapt their ways of measuring corporate performance. However, it includes issues which may be outside the direct control of the organisation, that are difficult to characterise and often are based on value judgements rather than hard data. The difficulty in measuring performance is further complicated by the fact that many corporations have a complex organisational structure, with different business streams, functions and projects.

This paper has used two case studies to explore how the appropriate use of indicators can be a powerful tool in addressing the sustainability of businesses both at a corporate wide level and at a project level.

KEY WORDS: corporate sustainability indicators, key performance indicators (KPI's)

Introduction

In the wake of recent corporate scandals, there is huge pressure for businesses to be accountable and transparent in their activities (DiPiazza and Eccles, 2002). Increasingly, stakeholders are becoming more vocal in their demands for information on business activities aside from financial performance (Brown, 2000).

- Investors are looking for evidence of good corporate governance, particularly sound business strategy and effective management of risk.
- Customers are asking about the origins of products, who made them and what they contain.
- Employees are looking to work for companies that visibly account for their responsibilities to society and the environment.
- Governments and civil society are increasingly placing pressure on businesses to report on social and environmental performance.

These demands relate to the ways in which businesses are aligning their activities with the principles of sustainable development. As a result, business leaders are recognising the need to respond to these pressures by conducting their operations in a manner that is both good for their business and which satisfies stakeholder concerns.

The challenge, however, is that the sustainable development agenda has introduced a plethora of new aspects for which the organisa-

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tion should be accountable. These include accounting for issues which may be outside the direct control of the organisation, that are difficult to characterise and often are based on value judgements rather than hard data (Figure 1).

The difficulty in measuring performance is further complicated by the fact that many corporations have a complex organisational structure, with different business streams, functions and projects. The sustainability performance of individual divisions of a corporation can be clouded by generalised statements of performance across the organisation.

These issues present some interesting questions for the development of performance indicators within any business:

- How can/do you identify the right set of performance indicators for your organisation?
- How can you determine how effectively different parts of your organisation are delivering on sustainability commitments?
- How can/do you measure performance at

the operational levels, such as within projects, where there are direct environmental, social and economical impacts?

This article seeks to address these questions by sharing some of Arthur D. Little's experiences in developing sustainability indicators and exploring two case studies where Arthur D. Little has helped businesses to develop the right set of indicators at two different levels within the organisation (Figure 2).

Insights into our experiences in developing indicators for companies

Making the indicators relevant to management needs

The development of sustainability indicators within business is not easy. It is essential to have thorough involvement of those who will be accountable for delivery.

If done properly, the process generates heated debate, which at times may be interpreted as

	In-house indicators		Management indicators	Stakeholder/Business partner & product indicators		
More complex to collect	Bribery and corruption	Fair trade	Workload	Auditing	Reputation	Corporate citizenship
	Transportation	Code of conduct	Diversity and equal opportunities	Management systems	Product representation	Ethical products
	Air	Working environment	Sickness	Business performance	Family friendliness	Suppliers/contractors
	Environmental training	Quality	Training and personal development	Compliance	Local community	Shareholders
	Water	Environmental costs	Employee benefits	Safety and occupational health	Social performance reporting	Business partners
	Energy	Waste	Job creation	Health and safety	Reporting	Customers

Increasingly external focus

Figure 1. The complexity of sustainability indicators.

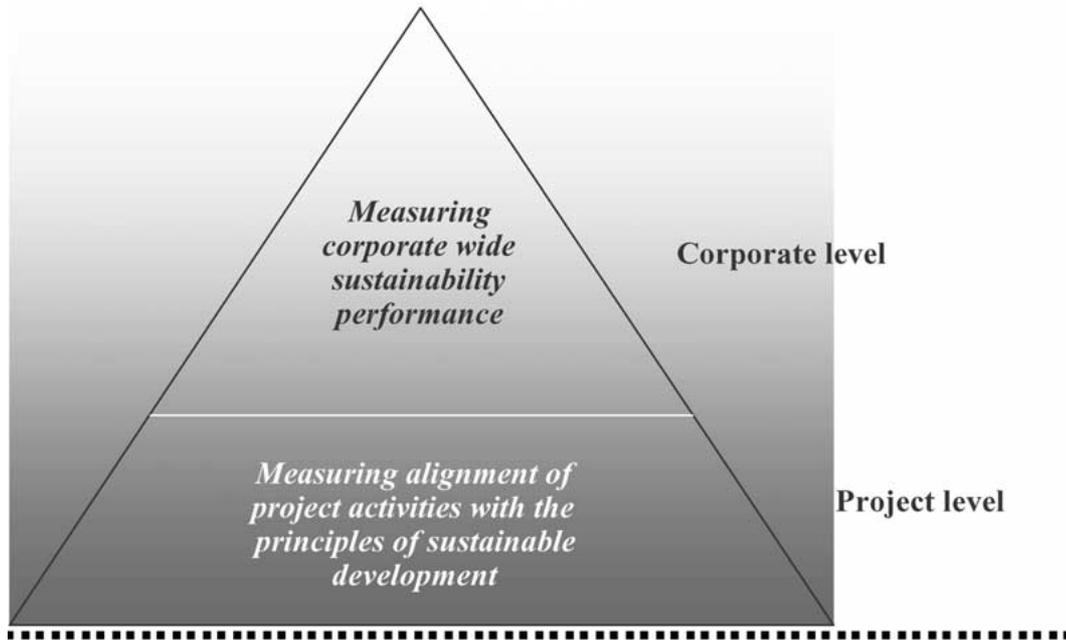


Figure 2. Developing performance indicators at different levels within the organisation.

conflict. Such debate is a key part of the organisational learning process, and is an important stage on the road to gaining widespread understanding of – and commitment to – sustainable development.

Indicators should reflect the business realities, values and culture of the organisation, and as such their development should not be constrained to prescribed methodologies or standards. However, internationally recognised standards can play a role in informing the development of appropriate indicators. Examples include ISO14031, the Global Reporting Initiative (GRI), the Global Compact, the Sullivan Principles, the ICC Business Charter for Sustainable Development and the WBCSD Eco-Efficiency Metrics.

Finding the “ideal set” of indicators

Our experience also shows that organisations can devote significant resources in seeking to find the “ideal” set of indicators. When in fact, the development and use of indicators should be a dynamic process that informs decision making rather than being an end in itself. If the

development process is allowed to drag on too long it can lose momentum and credibility since there is no perfect set of measures for any organisation. Once a good, balanced, small set of simple indicators is established, the real effort should be put into building the review process, ensuring that indicators form the basis for frequent, focussed, constructive dialogue between levels in the organisation, and across functions, on how to improve.

Meeting diverse expectations

Dialogue with key stakeholder groups should play a role in informing the process. Identifying what stakeholders expect of the organisation and which policy commitments require substantiation are critical aspects of indicator development.

Frequently there may be differences in opinion between internal and external stakeholders on what the indicators should be. External stakeholders may want to see performance measures that relate to their concerns and expectations (for example, ethics of product manufacture, health effects of product use, legal compliance), while internal stakeholders focus on what they know

to be preventative measures (such as audit and inspection frequencies). The final set of indicators should be a balanced set reflecting the concerns of various stakeholders. The indicators should be framed with a clear message that the full set of indicators may change as both stakeholder concerns and expectations change, and also as the nature of the organisation's social and environmental impacts evolve through operational changes, new products or markets or new lines of business.

Putting the indicators to work

Critical to the implementation of the indicators is assigning accountability for delivery to senior operations executives and line managers. These managers must understand how they can use their decision making to influence sustainability performance. This highlights the importance of seeing the development and implementation of sustainability indicators as a component of a wider sustainable development pathway.

Case studies

To help frame some of these insights, we present two case studies that explore how an organisation was confronted with a specific problem associated with measuring sustainability performance, how we worked with them to develop an appropriate and meaningful approach to measuring performance and the results achieved from the work.

The first case study explores one method to developing indicators to measure corporate wide sustainability performance, illustrating some of the key steps involved in establishing an appropriate indicator set. The second case study explores a different approach, using a profiling technique to measure the alignment of project level decisions with the principles of sustainable development.

Case Study 1: Measuring corporate wide sustainability performance

The problem

A leading financial service organisation wished to maintain their market position by differentiating themselves through their environmental and social leadership. After a review of their environmental and social performance and the development of a set of social and environmental policies, they wished to develop indicators to provide assurance that their commitments to sustainable development were being lived within the organisation.

The approach

The approach we took to develop such a set of indicators was informed by answering four key questions:

- What is critical and relevant to the organisation?
- What commitments does the organisation need to support?
- How will they benchmark performance?
- What do stakeholders expect of them?

These key questions form the basis for informing a five step process for developing performance indicators at a corporate level within the organisation (Figure 3).

Initially an "indicator pool" was established. The pool drew indicators from a range of sources, including indicators used by peers in the same sector, those used by leaders in sustainability reporting and those proposed by international standards. In addition, explicit commitments in the organisation's policy statements were translated into potential indicators and added to the pool.

Critically, the pool of indicators also included metrics that the organisation had already established.

In order to shortlist this "indicator pool" we needed to establish exactly what kind of metrics would fit within the organisation. Through a facilitated process of dialogue with the company

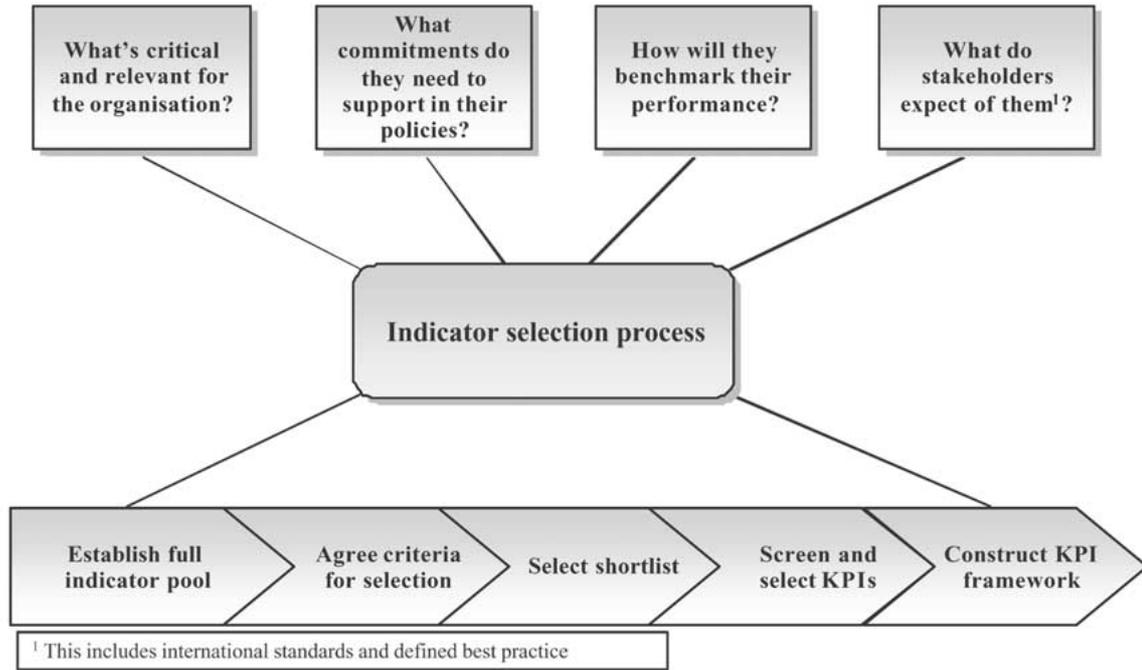


Figure 3. The process used to determine the set of indicators.

we sought to understand what kind of criteria we might apply to this pool to draw out those indicators that met the specific needs of the organisation. We termed these criteria “screening” criteria (Figure 4). Examples of “screening” criteria were that the indicator should be critically related to the core activities

of the business, or the indicator should be relevant to stakeholder concerns.

The actual process of shortlisting the pool of indicators was then conducted with the organisation allowing them to refine the “screening” criteria but also to have the opportunity to allow certain indicators to pass through the process that

Screening	Ranking
<ul style="list-style-type: none"> • Able to measure progress over time • Measurable and verifiable • Relevant to key internal/external concerns • Potentially benchmarkable • Critically activity-related • Meaningful at Group level (it should be clear whether a higher number is good or bad) 	<ul style="list-style-type: none"> • Leading rather than lagging • Motivational • Within control of those accountable • Practical to measure • Likely to provide new, useful information • Validated by engagement • Help differentiate from competitors • Outcome rather than input/output

Figure 4. List of criteria for screening and ranking.

would otherwise be excluded for specific reasons (e.g. specific and relevant metrics that are already being measured as a result of other business processes such as staff satisfaction surveys etc.).

Importantly, the *participatory* use of “screening” criteria ensures that selected indicators met the needs of the organisation rather than being imposed on them.

The output of the screening was a shortlist of indicators. Often, such a shortlist has related/similar indicators. In order to select the most appropriate indicator the development and use of a set of ranking criteria can be useful. These help in the decision making process to knock out indicators that are appropriate but may not be a suitable as related indicators. For example on the issue of staff training, selecting between *total training expenses as % of total wages*, *training expense per employee or % of total employee costs spent on training* maybe difficult. Each indicator provides slightly different information, but all three are informative about the organization’s commitment to personal development. Using the ranking criteria, the organization can identify which of these indicators are most appropriate to the organization. In the case of the case study, they selected the third indicator as this provided the most useful information and was also an indicator specified by one of the major sustainability indices, for which the organization was seeking inclusion.

The final step was to establish a reporting framework for the organization. This involved determining what level of effort would be required to establish the indicator within the organization, what system changes would be required and how quickly the data could be collated.

Results achieved

From an original pool of over 500 potential indicators the organisation established nine key performance indicators that would enable the organisation to communicate to its key stakeholders that it was fulfilling the commitments set out in its social and environmental policies. They were able to retain all the knowledge gained in the process of developing the indicator

set, providing them with the opportunity to further develop their indicator set or to add new performance indicators in response to changing stakeholder expectations or changes in the nature of their business.

This case study has provided an insight into how an organisation can develop indicators to measure corporate wide sustainability performance. Such indicators are useful in providing decision makers with a high level indication of progress and provide assurance that policy commitments are being fulfilled. However, they are less useful at a project or operational level where the kinds of social or environmental issues encountered vary from project to project. The second case study presents an interesting example of how a more flexible approach to measuring performance can provide a useful indication of alignment with the principles of sustainable development.

Case Study 2: Measuring alignment of the project activities with the principles of sustainable development

The problem

A multinational energy company needed a practical tool that would enable project managers to consider Economic, Social and Environmental issues when planning and implementing capital projects. The tool had to fit in with existing business processes for project planning and approval. By increasing awareness of these issues, and by using the tool, the company wanted to ensure that projects were planned and implemented in alignment with the principles of sustainable development.

The approach

Arthur D. Little identified key sustainable development issues in consultation with internal and external stakeholders and developed a set of 69 indicators that collectively assessed projects against four key questions relating to economic, social, environmental and natural resources use impacts (Figure 5).



Figure 5. The four key sustainable development questions. *Source:* Arthur D. Little.

The 69 indicators are grouped into 37 Sub-Criterion under 15 Criterion headings (Figure 6).

These headings are shown on the summary scoring page (Figure 7).

All aspects of the project can be scored on a scale of 1 to 5 where score 1 = weak alignment

with the principles of sustainable development, Score 5 = strong alignment with the principles of sustainable development. The scores are aggregated and displayed on a single scoring page (Figure 7) and, crucially, all numerical scores are supported by a short sentence describing the main reasons behind the score. Using this com-

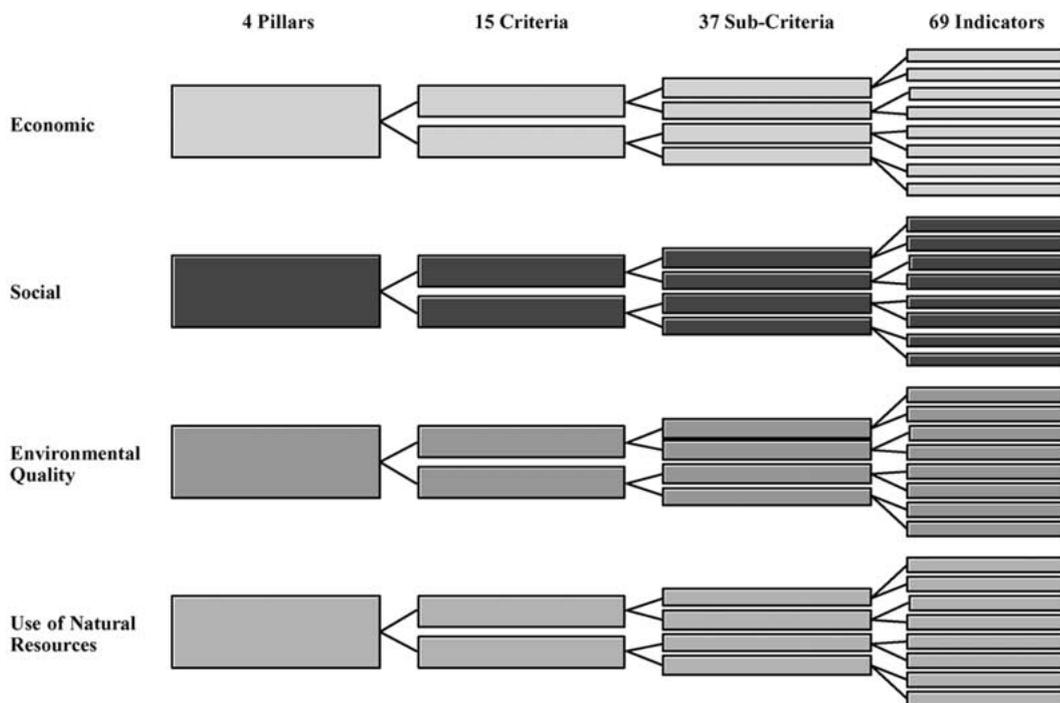


Figure 6. The 69 indicators and their link to the four key sustainable development questions. *Source:* Arthur D. Little.

The assessment methodology

The **Sustainable Development Profile** summary table shows alignment with the principles of sustainable development



Economic		Social		Environment		Resources	
<i>Will the project generate prosperity and enhance the affected economies?</i>		<i>Will the project be implemented in a socially responsible manner and benefit the affected communities equitably?</i>		<i>Will the project cause long-term damage to the environment?</i>		<i>Will the project protect and enhance natural capital?</i>	
Governance Alignment with policies Economic Investment Jobs Taxes Support local economy Financial Company profitability Suppliers profitability Innovation Supports innovation Risk Manages risk	Governance Alignment with policies Social Infrastructure Local demographics Local education Local health Public safety & security Uphold human rights Protect local culture Stakeholders engaged Employment Employment conditions Job security Training & development Safety Risk Manages risk	Governance Alignment with policies Emissions Emissions to air Emissions to water Waste Hazardous materials Nuisance Risk Manages risk	Governance Alignment with policies Natural Resources Recovery factor Energy Materials Water Biodiversity Land and seabed Risk Manages risk				

Figure 7. Summary table of output from assessment. Source: Arthur D. Little.

bination of scoring and succinct descriptive text, a short report can be developed to describe a project’s alignment with the principles of sustainable development.

Projects include many different phases from exploration through design, construction, operation and decommissioning. Project activities are performed by many different organisations and result in a very wide range of direct and indirect environmental, social and economic impacts. This assessment considers the direct and indirect project impacts down to the first tier of main contractors and suppliers. A Project Assessment Matrix PAM was developed to record scores for specific project activities and to enable transparent aggregation of these scores into the summary scoring page.

A key benefit of the tool is that it can be used several times throughout the project lifecycle to assess impacts, inform decision-making and track progress (Figure 8).

At the outset the tool can be applied rapidly, in a five-hour workshop, to raise awareness within the senior project team and to identify critical significant impacts. As the project becomes better defined the tool can assist the team in setting sustainable development objectives and selecting between project options. Once project options have been selected, taking sustainable development considerations into account, the tool can help to identify the best suppliers and contractors and demonstrate that the project will meet the sustainable development objectives. Finally, the tool can be used to measure performance and impacts during construction and operation, thereby providing feedback to project managers on the project’s alignment with the principles of sustainable development.

At a project level, this approach has a number of benefits. For example, it can be easily integrated into the project planning process.

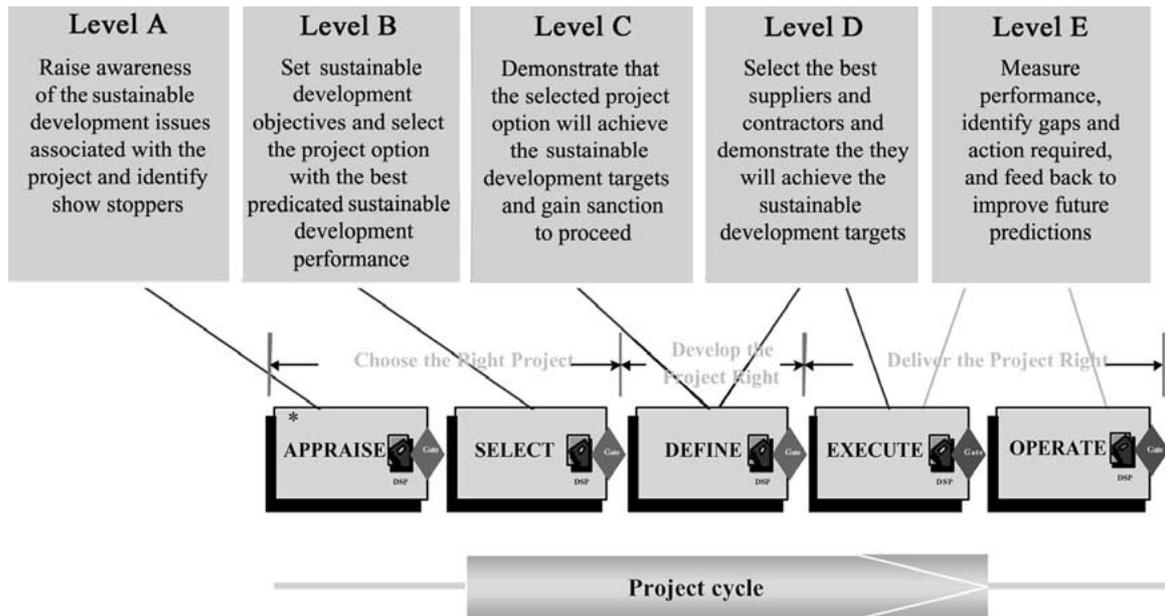


Figure 8. Sustainable development assessment throughout the project lifecycle.

Moreover, it is predictive and thus helps with decision making before any risks are taken. It also involves key project staff and progressively involves project partners, staff and other stakeholders. It is dynamic and flexible and is not prescriptive with respect to the kinds of indicators that might be used, as every project will have different impacts. Finally, it can be very simple and fast to use in the planning phase, thereby raising senior awareness of these issues early in the project lifecycle.

Conclusions

This paper has used two case studies to explore how the appropriate use of indicators can be a powerful tool in addressing the sustainability of businesses both at a corporate wide level and at a project level.

Our experience points to three key lessons for companies considering developing performance indicators for sustainable development:

- Encourage debate across the organisation on what the best indicators might be. But don't let this debate stall progress; once you have a good set of balanced measures, concen-

trate on developing the review processes that will put them to use in delivering results.

- Involve external stakeholders in developing indicators. But in the end, line managers who are accountable for delivery, must be able to understand how they can achieve results through their own decision-making.
- Recognised standards for measurement and reporting may serve as useful reference points. But it is important that the organisation goes through the development of indicators from first principles, so that there is a sense of ownership over the result, and that the result truly reflects the values and business environment of the company.

Measurement of performance at different levels within the organisation will inform a diverse range of stakeholders as to how the organisation is performing. Investors in the business can make more informed judgements about governance and risk management within the business. Employees can make more informed judgements about how different parts of the organisation are tackling social and environmental issues and communities and governments can understand more

easily the impact and benefit of specific project related activities of the business.

There is no defined manner to measure alignment with the principles of sustainable development at different levels within the organisation. However, this article has presented a number of perspectives that maybe of benefit to businesses seeking to develop performance measures at different levels within their organisation.

References

- DiPiazza, S. A. and R. G. Eccles: 2002, *Building Public Trust: The Future of Corporate Reporting* (John Wiley and Sons Inc.).
- Brown, D.: 2000, *The Accountable Business: Managing Corporate Responsibility in Practice* (Arthur D. Little).

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