

# Integrated Management Systems for Excellence in Environmental Management

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## **1 Summary**

Integrated Management Systems (IMS) are slowly spreading in the tourism business as the need to address the triple bottom-line sustainability is increasingly recognised. Large corporations have both the financial means and the required expertise to create their own IMS's suited to their own unique operational features. This is not the case for the SME (Small and Medium Enterprises) sector which forms the majority of tourism related organisations. For such enterprises the solution may be the double certification of ISO 9001 for quality and 14001 for environmental management. These standards provide a flexible and internationally recognised approach to an IMS which can be adapted to individual needs. The price tag and the complexity of the process may, however, be prohibitive for some small business units. Hence incentives are needed from the public sector in order to promote healthy business and environmental management. In this paper we discuss the benefits of an IMS and present the principles of an ISO type IMS. Finally we present a case study of the Valais canton (CH) and show how it facilitates and promotes the implementation of IMS in the local SME's.

## **2 Introduction**

The tourism industry is gradually recognising the value of sustainable development, not only with respect to the positive image creation for the interested client but also with respect to the potential economies that can be generated when environmental management becomes an integral part of managing the firm. Thus, large multinational corporations such as Accor, Starwood and Hilton International have embarked on the creation and development of environmental management systems. However, the SME (Small and Medium Enterprise) sector is still lagging behind (Bohdanowicz 2005), largely due to the absence of practical information and the initial costs which are involved. In the SME sector, there still seems to be some confusion between environmental management and sustainable development. For example, in a survey (Pryce 2001) carried out in two areas in the UK most of the sampled companies presented actions in favour of the environment as sustainable development. In such organisations where some form of environmental management is implemented it constitutes a part of the strategy of the organisation but not necessarily an integral part of management. In this case the positive socioeconomic impact is not sufficiently exploited.

In some way, and totally unwillingly, the great number of eco-labels which have appeared on the market in recent years have contributed to the confusion by producing both a positive and a negative effect (Hamele 2004). The positive side is that there is a continuously increasing push and interest for environmental consciousness with respect to energy, waste and water. The negative side is that most eco-labels promote the limitation of ecological impacts but the social and managerial aspects are promoted to a lesser degree.

Integrated Management Systems (IMS) aim at bridging the gap. Their objective is to address, in a single effort, all three dimensions of sustainable development namely: economic social/cultural and environmental aspects. Two such systems are being promoted by large international independent organisations: the EFQM Excellence model

and 14001-9001 certification by ISO. The general outlook of both approaches is quite similar. Their objective is excellence for triple bottom-line sustainability. The introduction of an IMS relies on the understanding that management of environmental impacts requires the establishment of a quality management system. The idea is that environmental impacts are the “secondary effects” of the processes inherent to the primary activity of the organisation. The notion of quality management then encompasses not only managing the major value-adding processes but also their impacts on the environment. The latter may be positive as well as negative. Note that the environment here is understood as encompassing both the physical and human environment.

The objectives of implementing an IMS are multiple but come under two broad headings:

- Ensure long term financial sustainability through effective management of the economical, environmental and social aspects of the organisation,
- Demonstrate the sustainability to all stakeholders (e.g. clients, financial institutions, public authorities) so as to gain a positive image both for the firm and the destination which it depends upon to draw potential clients.

The tourism industry being particularly dependent on its image, it makes an ideal candidate for IMS's.

This paper discusses the main aspects of the implementation of an IMS based on ISO 14001-9001 certification. A case study is used in order to illustrate how a tourist destination such as the Valais (CH) promotes the implementation of IMS for all the SME's within its frontiers. This case study also illustrates the necessity for collaboration between public authorities and SME's in the promotion of sustainable development practices.

### ***3 Rationale for promoting IMS's in the tourism sector***

In a recent study Bohdanowicz (Bohdanowicz 2005) researched the attitude of European hoteliers towards environmental issues. Although only this one dimension of sustainable development has been investigated, some of the findings are important with respect to the need for a wide introduction of IMS's. From this study it is quite clear that hoteliers do not perceive environmental commitment as a marketing factor (ranked fifth in a list of five) but location ranks first. This finding sounds almost contradictory if one recognises that location is part of the environment of a tourist destination. It is also interesting to note that quality of service ranks second in the hoteliers' list, thus indicating that there is no perceived relationship between quality and environmental impact. About 80% of the respondents also declared being involved in some kind of environmental action (some of them probably imposed by local law) but at the same time there is very low awareness of the institutional efforts (e.g. certification authorities, governments, NGO'S) to promote sustainable practices.

Such findings tend to indicate that there is a need for incentives and increased understanding of the relationship between environmental management and quality management. In this respect, the role of public authorities and other similar stakeholders is of prime importance. Nowadays, and more than before, local authorities embracing Agenda 21 principles for tourist destinations need to make an effort to promote sound environmental practices in the tourism sector. Legislation alone will not do it (and it is not expected to) and the client is not yet sufficiently sensitive to those issues (and hence not powerful enough). The promotion and facilitation of implementing IMS's in the tourism sector may be an effective tool for easing the business into environmental practices. If it is difficult to provide tourism operators with incentives for environmental practices, helping these operators to implement an IMS may be the incentive itself. An IMS combines good management practices with continuously improving environmental care, thus environmental management is promoted through the incentive of the financial efficiency that can be obtained with an IMS. However, the costs involved in starting up such a

system may be prohibitive for an SME. Hence the incentives of public authorities should be concentrated on this aspect, i.e. facilitating the implementation of an IMS so as to reduce the capital investment for SME's. The example of the government of Valais (CH) shows that, when this aspect is well recognised, it can lead to the successful policy that will be discussed in the second part of this paper.

#### **4 An IMS based on ISO 14001 and 9001 standards**

These two ISO standards are designed for independent implementation. ISO 14001 concerns the design and operation of a Quality Management System (QMS) for the organisation. It can thus be thought of as addressing the economic aspect of sustainable development. The ISO 9001 standard describes the requirements for an Environmental Management System (EMS). Here, the environment is defined as the space in which the organisation operates "including, air, water, soil, natural resources, fauna, flora, human beings and their inter-relations". Hence ISO 9001 can be seen as addressing the social and environmental aspects of sustainable development. Given the built in compatibility and common methodologies of these two standards, their joint implementation forms an IMS for sustainable development. Both standards are based on what may be called "management by processes" and the underlying methodology is the Plan-Do-Check-Act cycle aiming at continuous improvement. With respect to the combined environmental and economic benefits, the principle of continuous improvement is probably the single most important article in both standards and in sustainable development, in general. Through it, it is implicitly recognised that excellence in quality and environmental practices bears a cost which can be an adverse factor if the organisation is required to attain it from start up. Continuous improvement allows for spreading the costs in time so that high objectives can still be attained but at a financially bearable pace.

The implementation of ISO 9001-14001 can be a lengthy and complex process. Both standards set very thorough requirements which may be beyond simple intuitive understanding without some background training. As a consequence external guidance is almost always required either in the form of training or in the form of consultancy. Hence implementing an ISO type IMS has a cost which must be evaluated beforehand.

ISO 9001-14001 is a double certification scheme but it is not an eco-label. Unlike eco-labels, it does not require that a fixed set of objectives (e.g. for energy, waste and water) be met. The requirements here are of organisational order. On the other hand, the double certification goes beyond typical eco-labels because it addresses the sustainable development of the organisation as a whole and not only the harnessing of its environmental impacts. This leaves space for individual initiatives to meet eco-label standards as well as the ISO standards. Hopefully, in the future, one will see certification schemes incorporating both an IMS and eco-label standards in a single package...

##### **4.1 The ISO 9001 Quality Management Model**

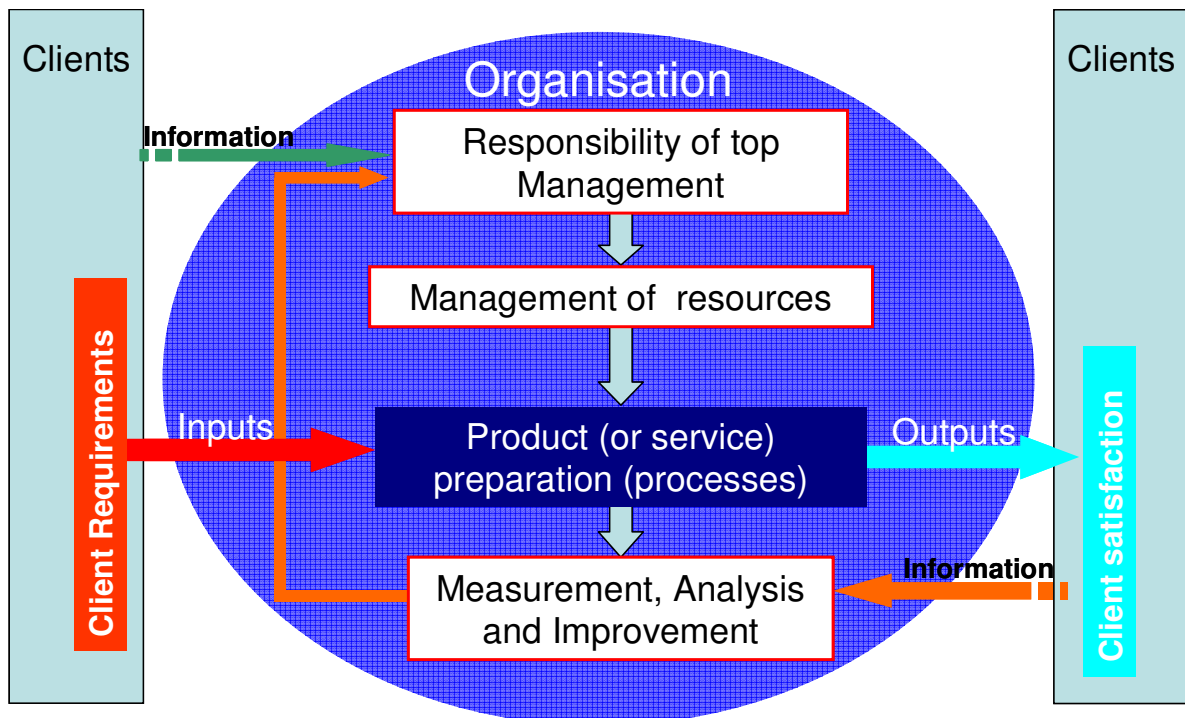
At the centre of the ISO 9001 quality management model stands the definition and management of the major value-adding processes. Defining and managing processes in the enterprise is a key element of the sustainability of an organisation. An organisation can be looked at as an ensemble of processes which are designed to provide services (or products) to satisfy the client's needs. Hence a process is a chain of actions which uses resources to transform inputs into outputs. In the philosophy of ISO 9001, ensuring the quality and continuous improvement of the main value adding processes in the organisation is a sign of health and a necessary factor of sustainability. The main elements defining a process are its

- Objective(s) (raison d'être),
- inputs and outputs,
- actions (or activities) which transform the inputs into outputs and

- the indicators which measure the performance of the process.

The main advantage of identifying and describing the processes in an organisation is the clarity that is provided by such a description. It can be seen as an extended flowchart. The organisation appears in a concise manner whereby the function of different departments/processes appears as an integral and substantial part of the organisation. The performance indicators of each process constitute a prelude to setting up a balanced score card approach for managing the organisation towards realising its mission. A second advantage can be obtained from analysing the “as is” situation for consistency and efficiency of the processes. The activities within each process should aim at achieving the objective of the process. Inputs should be obtained either from other processes or from the organisation stakeholders. Outputs should be used either by other processes or by the stakeholders. If this is not the case, then the outputs maybe unnecessary and the process suffers from inefficiencies. Finally the indicators should be specific to the process and chosen to control if the process is achieving its objectives. If this is not the case then the choice of indicators may need to be reviewed.

The general model of the QMS is illustrated in Figure 1. It shows the important role the clients play when it comes to defining their requirements as inputs both at management level and to the processes of the organisation. Tracing client satisfaction requires the evaluation of information on the perception clients have of how the organisation responds to their needs. The standard defines detailed requirements concerning the responsibility of top management, the management of resources, the preparation of the service/product and the corrective actions for continuous improvement. A detailed presentation of these requirements is beyond the scope of this paper. However, in order to show, later on, how the Valais has facilitated the introduction of the QMS in the local SME's, it is necessary to provide some information on each of these aspects.



**Figure 1 The ISO 9001 model of a Quality Management System based on processes. Adapted from International Standard ISO 9001 third edition 2000-12-15**

### **4.1.1 Responsibility of top Management**

In the framework of the ISO 9001 QMS, probably the most important responsibility of top Management is its commitment to the QMS and to the attention paid to the clients' needs and their satisfaction. It is also the top Management's responsibility to define, promote and continuously improve a Quality policy which is adapted to the function and size of the organisation. This requires that the planning of the QMS is such that objectives are measurable and coherent with the general Quality policy of client orientation. Top Management is also required to assign the responsibility of the QMS to a member of management whose function will be to ensure that the processes are established and maintained and to report to top Management on their status. Finally, top management is responsible for running the management review whose function is to overview the current status of the QMS and to decide and plan objectives for continuous improvement.

### **4.1.2 Management of resources**

The organisation is expected to provide the necessary resources for the maintenance and continuous improvement of the QMS as well as the satisfaction of its clients' needs. Resources include both human and material. It is the organisation's responsibility to maintain the competency level of its workforce through training and evaluation of its efficiency and maintain records of these actions. As far as the facility and equipment is concerned, the organisation must take the necessary actions to ensure their good working order.

### **4.1.3 Preparation of the service/product**

The organisation must define and plan the processes required for the preparation of the service/product. This includes the description and documentation of:

- the inputs, outputs, activities, and indicators of the main value adding processes,
- the objectives and the conditions for triggering each processes,
- the process owners, the required resources and the method of performance follow up,
- the verification of the performance of each process,
- the definition of corrective actions for the case of process failure.

This part of the standard concerns the core of the QMS and it treated in detail which is beyond our scope here. The objective of this part is to ensure and demonstrate that the organisation completely controls the preparation and the quality of its product/service and that it is truly client-need oriented.

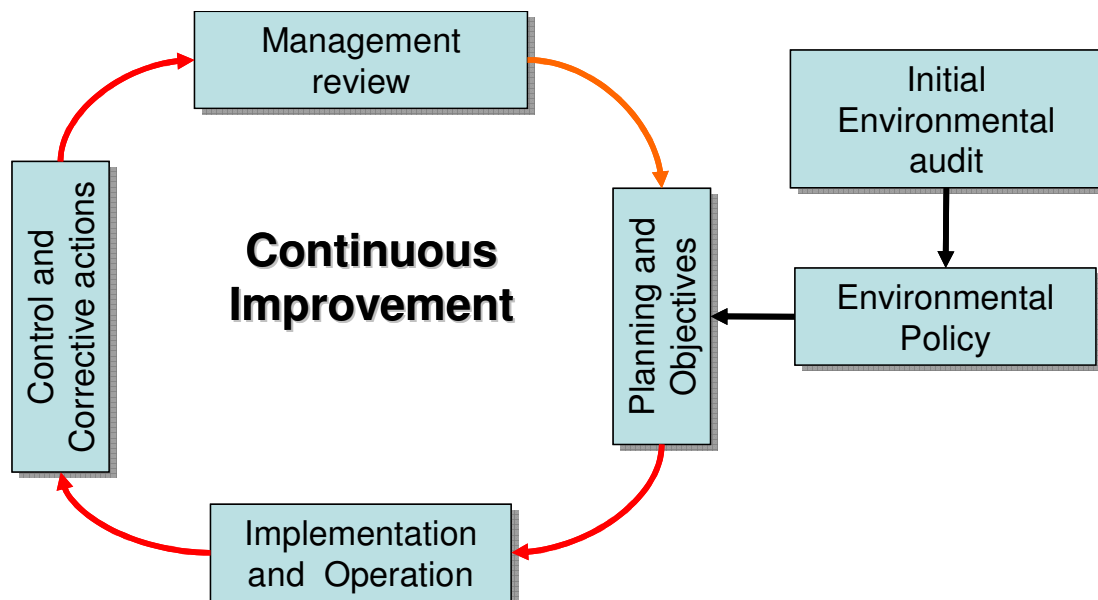
### **4.1.4 Corrective actions for continuous improvement**

The process of continuous improvement requires that the performance of the QMS is continuously monitored and evaluated by analysing both internal (internal audit) and external (client satisfaction) information. Improvement is obtained through corrective and preventive actions. The former relate to process failure, i.e., actions in the case of non conformity of the product/service, while the latter are applied in case of potential failure. For both types of actions it is necessary that a system for collecting and analysing information is incorporated into the QMS. The organisation is required to do so in order to demonstrate, the conformity if its product/service and of the QMS as well as its continuous improvement.

## **4.2 The ISO 14001 Environmental Management Model**

Figure 2 shows schematically the model of an Environmental Management System (EMS) according to ISO 14001. Similar to ISO 9001, the model is based on the Plan-Do-Check-Act methodology. An organisation which implements an EMS is required to demonstrate

that it controls all aspects of Figure 2 thereby showing that is able to develop and maintain an environmental policy which takes into consideration all legal requirements and other information relating to the major environmental aspects that the organisation can control and/or influence. As mentioned earlier, there is no specific environmental objectives to be observed other than those which the organisation sets and its commitment to continuous improvement. The elements of this EMS model will be briefly described in chapters 4.2.1 to 4.2.5.



**Figure 2 The ISO 14001 model of an Environmental Management System. Adapted from International Standard ISO 14001 second edition 2004-11-15**

#### **4.2.1 Initial audit and environmental policy**

The purpose of the initial audit is to describe the “as is” state of the environmental impacts of the organisation, to investigate its conformity (or not) to existing legislation and to identify possible requirements of stakeholders with respect to its environmental policy. The initial audit is not a clear requirement of the standard but it is away to satisfy the requirement that the environmental impacts of the organisation are clearly identified and conformity to legislation demonstrated.

The environmental policy should be developed taking into consideration the findings of the initial audit. Among other requirements, the standard demands that the environmental policy is decided upon by the top management, that it clearly shows commitment to continuous improvement and it is communicated to all stakeholders including the general public. It must therefore be clear and concise so that all stakeholders and, in particular employees, understand it. The environmental policy is the spur to the implementation of the EMS since all actions and objectives find their justification in it.

#### **4.2.2 Planning and objectives**

The organisation is required to set maintain and document procedures for identifying the environmental aspects of its activity that it can control and/or influence and determine which of those aspects have significant impacts. The EMS of the organisation must be oriented towards the control and continuous improvement of the most significant environmental impacts. For these environmental aspects, measurable objectives are set, in conformity with the environmental policy and current legislation. The organisation then initiates and operates one or more environmental programs in order to attain these

objectives. Management is expected to clearly define responsibilities and allocate the necessary resources to the environmental program(s).

### **4.2.3 Implementation and operation**

This is the most important part, i.e. the actual operation of the EMS. The purpose here is to make sure that the organisation develops an EMS which is adequately documented and operated by competent employees. The standard defines in quite some detail the requirements for proper operation and in particular:

- how resources, responsibilities and authority are distributed within the organisation,
- the requirement for adequate procedures, training and clear responsibilities for those involved in carrying out the activities included in the EMS,
- the importance of internal communication,
- the requirements for documenting procedures and measurements,
- and finally procedures for emergencies.

### **4.2.4 Control and corrective actions**

The organisation is required to set, maintain and document various procedures aiming at demonstrating its control over the EMS and its capacity to correct non conformities and improve its environmental performance. Such procedures include:

- measuring the characteristics of operations which may have an environmental impact so that conformity with objectives can be checked,
- check of conformity with legislation,
- identification of non conformities and corrective actions,
- future prevention of identified non conformities.

A regular internal audit is also required by the standard in order to determine if the EMS performs according to the policy decided by management.

### **4.2.5 Management review**

Top management is required to perform a review of the EMS at planned intervals in order to ensure that it is operational and efficient and to initiate whatever improvements are deemed necessary and possible. The documented information presented in chapter 4.2.4 serves as input to the management review together with any input from external stakeholders and changes in external circumstances. This responsibility of top management is important for the demonstration of its commitment to continuous improvement of the EMS and of the environmental aspects of the organisation. In an IMS, the environmental part of the management review can be combined with the quality aspects.

## **5 IMS for a tourism destination: Valais Excellence**

The Valais canton situated in the Alpine region of southern Switzerland has a long tradition as a tourist destination for both winter sports and summer vacations. The majority of tourist operators is made up by SME's, some of them being traditional family businesses. The Tourism office of Valais (Valais Tourisme) has correctly recognised that one the elements that contributes to the attractiveness of a destination is the quality of the service to the clients, another important element being the beauty and purity of its natural environment. Quality bears a price and the process for setting and obtaining quality standards can be costly, complex and, thus, out of reach for a good part of the tourism operators in the canton. If certified quality of service is something that the Valais can offer to its tourist, it still has to be able to communicate adequately and efficiently through a label which enjoys good faith internationally. Finally, the Valais tourism business being largely dependant on its image of beauty and purity of its mountains, it is of prime

importance that its environment is preserved through environmentally conscious development.

All the above elements have given rise to an initiative named “Valais Excellence” whose purpose is to promote sustainable development in all tourism related businesses at an affordable price. Initially Valais Excellence was run by the Valais Tourisme but, owing to its success, it has become an independent foundation since last year. It offers the possibility for the SME’s of almost all economic sectors to embark on the process of double certification ISO 9001-14001 by providing a set of tools and other types of guidance which encourage and facilitate the procedure. Once an organisation is ISO certified, it is offered the possibility to obtain the “Valais” quality label provided some values such as high quality, innovation, health and care for nature are being promoted by the organisation. The “Valais” label is promoted by Valais Tourisme and the aim is to transform it into a strong, trustworthy and attractive label that clients can recognise as proof of quality.

It is interesting to note that Valais Excellence is a purely governmental initiative and all the initial development was carried out by public funds. By doing this, the Valais indirectly subsidises the move towards sustainable development of its SME’s since the local companies have access to an IMS at a relatively low cost and with no or little need of external consultants. The registration fees are around SFr. 3’000 and the only additional costs are those incurred by the additional workload induced by the certification procedure. However, these costs are expected to be bearable for almost any SME, since they are spread over a three year period. The benefits for the SME’s are clear. They enjoy a better image locally, especially vis-à-vis the financial institutions and eventually reduction in operating costs. At the other end, Valais-Tourism promotes nationally and internationally its efforts for sustainable development, thus increasing the attractiveness of Valais as a tourism destination.

To day, 19 organisations have been certified and another 67 are in the process of doing so. The major merit of Valais Excellence is to promote sound managerial and environmental practices in the local SME’s but a note of caution is, nonetheless, in line here. Valais Excellence is a relatively new enterprise and, to the best of my knowledge, there is no public information showing that it has succeeded in creating more demand for the region. In the future it will be necessary to carry out a thorough evaluation of its impact, both on the sustainability of the certified SME’s and its capacity to stimulate demand.

## **5.1 The Valais Excellence Tools**

Valais Excellence provides logistic and training support to the registered SME’s and an Internet based tool which facilitates the creation and implementation of the IMS described in the previous chapters. The main aspect of training support is the coaching for the future quality managers, a position required by the ISO standards. Alternatively, it subsidises a more in depth training at the local technical university (HEVs). Coaching and training is also provided for the so called Vs Ex Coaches and process owners.

The Internet tool is designed for a three-fold purpose:

- To provide simplified financial and human resources management tools which address the ISO 9001 requirements for the responsibility of top management and the management of resources;
- To facilitate the definition and management of the processes thus addressing the ISO 9001 requirement for service/product preparation;
- To provide a simplified Environmental Management System, which corresponds to the requirements of ISO 14001.

In order to facilitate the implementation of these tools various templates have been created according to sectors of activity, e.g., hotels, restaurants, transport etc. The

templates can be adapted to the specific needs of each organisation. All tools are simple to use but require the training which is included in the registration fee.

Some additional help is provided via a benchmarking tool for financial and environmental aspects, an on line forum allowing sharing of information and a library containing the reigning legislation and help for the certification stages.

## **6 Conclusions**

The implementation of a Quality Management System according to ISO 9001 addresses the issue of economic viability of an organisation. The complementary implementation of an ISO 14001 Environmental Management System addresses the responsibility of the organisation towards its environmental and human impacts. Hence the combination provides a relatively simple and flexible IMS which addresses the triple bottom-line sustainability of the company. This paper has discussed the various aspects of the implementation of these two standards and the need to provide incentives for implementing IMS in the SME sector of tourism business. Although the tools are simple in concept, their implementation is relatively complex and may be prohibitive for some SME's. Hence incentives are needed and, for the moment, the public sector is probably the one able to provide them. In this paper we have taken the case of the Valais canton as an example of public sector providing incentives for sustainable development. We have shown how it has simplified the certification process by developing easy to use ISO-compatible management tools and by providing guidance in the process at a modest fee. For the moment this enterprise seems to be successful, but some evaluation of its outcomes will be required in the future before such a model can be generalised.

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