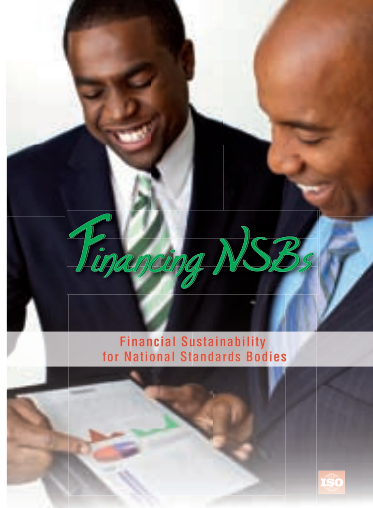


# Financing NSBs

**Financial Sustainability  
for National Standards Bodies**





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## About ISO

ISO has a membership of 163\* national standards bodies from countries large and small, industrialized, developing and in transition, in all regions of the world. ISO's portfolio of more than 18 300\* standards provides business, government and society with practical tools for all three dimensions of sustainable development: economic, environmental and societal.

ISO standards make a positive contribution to the world we live in. They facilitate trade, spread knowledge, disseminate innovative advances in technology, and share good management and conformity assessment practices.

ISO standards provide solutions and achieve benefits for almost all sectors of activity, including agriculture, construction, mechanical engineering, manufacturing, distribution, transport, medical devices, information and communication technologies, the environment, energy, quality management, conformity assessment and services.

ISO only develops standards for which there is a clear market requirement. The work is carried out by experts in the subject drawn directly from the industrial, technical and business sectors that have identified the need for the standard, and which subsequently put the standard to use. These experts may be joined by others with relevant knowledge, such as representatives of government agencies, testing laboratories, consumer associations and academia, and by international governmental and non-governmental organizations.

An ISO International Standard represents a global consensus of the knowledge in a particular subject or process, be it the state-of-the art in that subject, or what is good practice.

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\* End July 2010.



## Preface

The financial sustainability of any organization, including any national standards body (NSB), is critical. This might be taken as self-evident, but standardization activity requires revenue so that the NSB may operate effectively to meet the needs of customers and stakeholders over the long-term. Almost all ISO members are not-for-profit organizations that work to meet the standardization needs of their stakeholders and reinvest any surplus back into this activity.

So, the emphasis in this publication is on providing further information on activities, services and financing approaches for NSBs but it is not an end in itself. Organizations need financial resources to respond to the needs of their customers and stakeholders, to ensure there are robust systems and processes that make standardization activities efficient and take advantage of new technologies and allow those involved in standardization, including technical experts and employees, the training to do their job.

ISO and other agencies have therefore prepared a number of publications that cover these other aspects including:

- The ISO/UNIDO publication, *Fast forward – National Standards Bodies in Developing Countries*<sup>1)</sup>, that provides good practice guidelines for the establishment and general operation of a national standards body in a developing economy. This publication deals extensively with the place

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<sup>1)</sup> *Fast Forward – National Standards Bodies in Developing Countries*, ISBN 978-92-67-10477-5, ISO, 2008.

of the NSB in the national quality infrastructure<sup>2)</sup>, the responsibilities such a body should take up, the services it may choose to provide and its interfaces with relevant organizations at the national, regional and international levels.

- The ISO/UNIDO publication *Building trust – The Conformity Assessment Toolbox*<sup>3)</sup>, which deals extensively with all forms of conformity assessment.

This publication is another useful addition to the above handbooks which are collectively meant to provide ISO members with the information and guidance needed to optimise their operations and to sensitize their policy-makers to the importance of standardization and conformity assessment for economic development and trade. It will be of particular interest to managers of NSBs that are in the process of development or envisaging a re-definition of their roles and operations.

This publication supersedes the ISO publication, *Organizing and self-financing of participation in ISO work – Guidance for ISO member bodies*, published in 1998.

**Rob Steele**, ISO Secretary-General.



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2) The national quality infrastructure (NQI) is the total institutional framework (public or private) required to establish and implement standardization, metrology (scientific, industrial and legal), accreditation and conformity assessment services (inspection, testing and product and system certification) necessary to provide acceptable evidence that products and services meet defined requirements, be they demanded by authorities (i.e. in technical regulation) or the market place (i.e. contractually or inferred).

3) *Building trust – The Conformity Assessment Toolbox*, ISBN 978-92-67-10511-6, ISO 2009.

## Acknowledgements

ISO gratefully acknowledges the dedicated work of Martin Kellermann, edited and coordinated by Beer Budoo (ISO).

We also acknowledge the contributions made by Mr. Alan Bryden (former ISO Secretary-General), Mr. Adu G. Darkwa (former ISO/DEVCO Chair, Ghana), Dr. Yaseen Khayyat (Jordan), Mr. Ivan Krstic (ISO/DEVCO CAG member, Serbia), Mr. Mario Wittner (Argentina) and Mr. Png Cheong Boon (Singapore).

## 8 *Financing NSBs*

## Introduction

An analysis of the statistics in the latest *ISO Members 2009* publication<sup>4)</sup> indicates that the annual budgets of ISO members range from as little as USD 1 million to well over USD 200 million and that funding to meet these budgets is met from a variety of revenue sources. **Figure 1** shows the number of member bodies funded through government grants and clearly indicates that there is no single “golden path” to the financing of an NSB.

A further key point is that almost all standards activity undertaken by ISO members is on a not-for-profit basis<sup>5)</sup>. This basis of financing reflects the wide involvement and benefit derived from standardization activity and the fact that the full cost of standardization activity includes, among other inputs, voluntary contributions from experts and their employers. It is clear that the development of standards involves many actors and the system, as a result, is and needs to be based on financing of the costs involved that is

diverse and which recognizes the breadth of the benefits that accrue.

The role of many NSBs is also rapidly changing as a result of the increasing demand for standardization to support some or all of the following activities at a national, regional or international level:

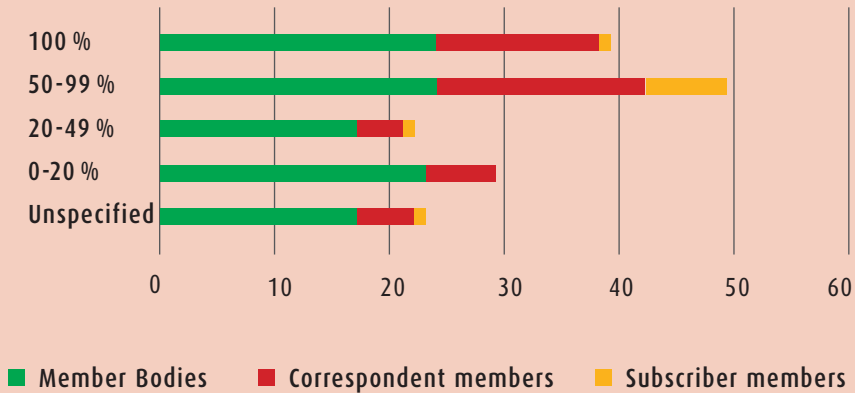
- To build trade capacity and foster access to world markets
- To develop standards and technical regulations identified at international and regional trade negotiations, as tariff issues are settled through multilateral or bilateral agreements
- To provide increasingly harmonized international and regional standards, to disseminate technology and good business practices, as well as to address global challenges such as climate change, energy and water efficiency, or food security
- To increase the effectiveness of the multi-stakeholder consensus-building processes on which international and regional standardization is built

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4) *ISO Members 2009*, Twelfth edition, ISBN 978-92-67-01174-5, ISO 2009.

5) Only 1.2% of ISO members offer standards activity on a for-profit basis.

*Figure 1: Sources of revenue of ISO Members  
(Percentage provided through government grants)*



- To provide services and standards, e.g. to multinational conformity assessment service providers.

To successfully carry out such a rapidly changing, multi-faceted role, proper management of human, physical and financial resources is of paramount importance for the financial sustainability of NSBs. The worldwide financial crisis of 2008-2009 that seriously troubled both governments and industry also highlights the need for sound financial manage-

ment of NSBs no matter how their operations are funded.

This publication sets out possible sources of income for an NSB and the possibilities of tapping into such sources, especially for NSBs in developing countries and countries with economies in transition which have greater challenges to secure the levels of income needed. It provides guidance on the establishment of a robust accounting system to meet the needs of an NSB and its various stakeholders, especially for the benefit of those who must exercise sound fiduciary re-

sponsibilities. An NSB, like any organization, must have proper accounting of its resources and good management to instil confidence that resources are being applied efficiently and effectively. Lastly, it provides guidance on the way in which NSBs that are not “standards-only” organizations can provide competitive conformity assessment services. This is especially important in cases where developing country governments decide to separate activities related to the setting of technical regulations and market surveillance from those related to the development of standards and related conformity assessment services.

This is an entry-level publication on the subject of NSB financing and does not purport to be a definitive text on financial accounting practices or management accounting systems. It does not replace any regulatory requirement for financial accounting in the NSB’s own country. Hence, it should be seen as a good practice document and its recommendations should be considered within the context of national requirements, realities, customs and practices. As far as is possible, financial terms in this publication have the same meaning as any financial analysis or reporting in any business. The terms are not specific to an NSB.

*Financial accounting* is concerned with the financial relationship of the NSB with the outside world, its overall results in terms of income and expenditure or profit and loss of its activities, and a historical review of what happened.

*Management accounting* is concerned with the financial information necessary to guide the course of the NSB successfully and deals primarily with what happens inside the NSB.

## Acronyms and abbreviations

IAF	<i>International Accreditation Forum</i>
IEC	<i>International Electrotechnical Commission</i>
ILAC	<i>International Laboratory Accreditation Cooperation</i>
IRCA	<i>International Register of Certified Auditors</i>
ISO	<i>International Organization for Standardization</i>
NQI	<i>National Quality Infrastructure</i>
NSB	<i>National Standards Body</i>
OIML	<i>International Organization for the Legal Metrology</i>
REC	<i>Regional/subregional economic community</i>
RSO	<i>Regional/subregional standards organization</i>
SC	<i>ISO Subcommittee</i>
SME	<i>Small and Medium Enterprise</i>
TBT	<i>WTO Technical Barriers to Trade</i>
TC	<i>ISO Technical Committee</i>
UNIDO	<i>United Nations Industrial Development Organization</i>
WG	<i>ISO Working Group</i>
WTO	<i>World Trade Organization</i>

# 1 – Basic considerations and assumptions

## 1.1 Organizational forms

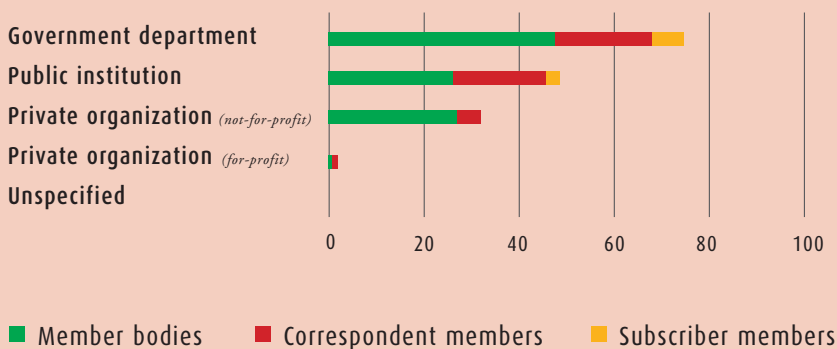
National Standards Bodies (NSBs) exist with varying legal status, scopes and organizational structures. The ISO publication *ISO Members 2009* shows that the legal status of ISO's members ranges from government departments, public institutions (i.e. statutory bodies), “not-for-profit” private organizations, and “for-profit” private organizations. The range can be seen in **Figure 2** below. However, though there are some regional differences (see 1.2 below), the majority of the NSBs in developing countries and countries with economies in transition

are either government departments or public institutions.

The trend, comparing 2009 with 2003 figures, is that the percentage of NSBs as government departments or public institutions is slowly diminishing. But “not-for-profit” private organizations increased significantly from 8% to 20% during this period.

This may be a consequence of governments recognizing NSBs as service delivery organizations, rather than policy makers, and hence a view that NSBs should be seen as operating more or less independently of gov-

*Figure 2: NSB organizational structures*



ernment. While maintaining or enhancing independence of operation is very good, governments have a responsibility to foster vibrant standards activity in their country and thereby ensure the long-term benefits of such infrastructure to the whole economy and the safety and health of their citizens. Therefore, transferring legal status from a public to a “not-for-profit” or private entity should not be the result of an abrogation of such responsibility.

The percentage of NSBs as private organizations operating with a profit motive (a model that has until now only been used in developed countries) has also reduced from 9% to 1% between 2003 and 2009. This may indicate that these NSBs, even though they may provide services against payment, have taken on greater “public good” responsibilities or that they are unable to maintain the profit model and have changed the basis upon which they operate.

### 1.1.1 Government departments

Where an NSB is a government department, its finances are generally totally integrated with government finances. In many cases, such NSBs obtain 100% of their funding from government sources and may not

have managerial and decision-making independence. Some of these NSBs do not provide conformity assessment services. If there are any inspection and testing activities in government departments, these are usually in the regulatory domain, and also funded through budgetary allocations. Although this publication may not be as relevant for such NSBs, proper financial discipline is still required, and in many cases the establishment of key performance indicators is very useful information to support budget requests. Should these NSBs evolve in the future to become public institutions or statutory bodies, this guideline becomes appropriate and is useful for planning the change-over.

### 1.1.2 Public institutions or statutory bodies

Statutory bodies are entities that are established by legislation, usually an Act of Parliament or similar. Such an NSB may have a measure of financial and managerial independence, with oversight shared between a minister in the government and a council or board. It may thus have more freedom to pursue business-like services in the marketplace. The funding from government sources normally does not cover the total costs of such

NSBs, and frequently such funding is earmarked for very specific activities such as standards development, international and regional standards liaison work, and the like. Such government funding is usually for the generic activities of the NSB where the benefit is clear but distributed so widely that funding for the activity is difficult to obtain from any individual stakeholder or group of stakeholders. In such cases, the NSB has to ensure that its financial systems are set up in such a way that it can give account of the funds it obtains from government, and that it provides its minister and council with assurance that it has utilised the allocated funds optimally.

### 1.1.3 Private organizations

Standards bodies that have been set up as private organizations are predominantly of the “not-for-profit” kind. Such bodies may be designated as the “national” standards body through an appropriate Memorandum of Understanding or other contractual arrangements between it and the government. The government is a customer of the NSB, like any other client, although it has a special role to recognize the body as the lead organization for voluntary standardization. The NSB may have a contract with

government for specific activities, or even a lump sum grant, and the contract should be specifically accounted for on strict business principles. Government may diminish the funds if the NSB cannot show what was achieved with the funds. Often training, information and conformity assessment services are the major source of the funding and financial sustainability of such NSBs.

## 1.2 Regional differences

In some parts of the world (e.g. in Africa and Central Asia) most NSBs are government departments, public institutions or statutory bodies. In contrast, in other parts of the world (e.g. South America) NSBs are frequently private organizations or public/private partnerships registered as private organizations. These regional differences may have to be taken into consideration when considering the long-term financial sustainability of an NSB, but national preferences could also dictate which model will be the most appropriate. Most of the guidelines and recommendations of this publication apply in all regions, irrespective of the administrative and legal framework under which the NSB operates.

### 1.3 Standardization, conformity assessment and regulatory responsibilities – conflict of interest?

An issue gaining prominence in debates regarding trade is the propensity of governments in developing economies to allocate the responsibility of administration and enforcement of mandatory standards<sup>6)</sup> to the NSB. In such an instance, the NSB becomes responsible for developing and enforcing mandatory standards, in effect becoming the regulatory body.

While this publication does not comment as to whether this is acceptable practice or not, there is increasing international pressure to separate the setting and enforcement of regulations from standardization and conformity assessment services to enhance good regulatory practice. A small number of developing economies have recently separated the setting and enforcement of regulatory activities from the NSB, while others are contemplating such a separation.

Many NSBs in developing countries obtain the bulk of their funding through administration of mandatory standards, as technical regulations, and even compulsory product certification. Regulatory-related income from some NSBs can be as much as 60% to 80% of their total annual budget and this income may not be dependent on service delivery levels or the marketing efforts of the NSB.

While it is tempting for NSBs to regard such income as “secure income”, and a very comfortable way of getting budgets to balance, such income from mandatory standards or compulsory certification may come to an abrupt end by a decision outside the NSB’s control. NSBs should therefore start planning well ahead to deal with such an eventuality. For example, even if or when such separation occurs, NSBs with conformity assessment capabilities may be in a good position to provide testing services to their governments or certification services to industry on a contractual basis.

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6) ISO Guide 2:2004 lists “mandatory standards” as a generic term. Where standards are made mandatory in terms of specific legislation, some countries refer to them as *mandatory standards*, others use the term *compulsory standards* or even *compulsory specifications*. To remain consistent with ISO/IEC Guide 2, this publication will use the term *mandatory standards*, but all are included in the meaning thereof.

This publication offers some recommendations to NSBs whose governments have made (or are about to make) the decision to separate activities related to the setting of technical regulations and market surveillance from those related to the development of standards and related conformity assessment services. While these recommendations are based on experiences in countries where such separation has already occurred they should also be evaluated against specific country realities and current best practice.

#### 1.4 Payment principle

Standardization supports the goals of society as a whole, and contributes to public benefit. It is the result of the application of the principles of inclusion of all interested in the work and consensus amongst those interested in the work. It should therefore be regarded as a self-governed activity of the interested parties, including the public authorities. As a consequence, all those concerned should provide resources for the task.

Therefore, a guiding principle for the operation of an NSB, and a very important one for enhancing financial sustainability, is that costs should be carried as much as possible by the di-

rect beneficiaries. If the beneficiary is the country, then a good case can be made that the costs are to be borne by the government. On the other hand, if the beneficiaries are enterprises or individuals, then they should carry the costs. Obviously, there are also cases where society and enterprises both benefit, in which case both should contribute. This principle that the beneficiary should pay is used as overall guidance throughout this publication.



## 2 – Sources of revenue

### 2.1 Core funding versus commercial income

A very useful concept that was introduced in the *Fast forward* publication is the differentiation between core funding and commercial income. Core funding is that part of the income that is utilized to provide for the “good of the nation” activities of the NSB such as standards development or standards information for which there is no direct individual beneficiary, but where the country as a whole benefits. In developing economies, this would normally be provided through the government budget or other sources of government funding. Proper management of the allocation of the core funding is vital and key performance indicators should be developed in order for the NSB to give an accurate and transparent accounting of its use of such funds.

Commercial funding, on the other hand, is that part of the revenue that the NSB obtains usually from direct beneficiaries of the service provided. This could be as a result of any of the services provided by the NSB to direct clients, whether these are in the public or private domain. The services the NSB renders against payment

may include development of standards to meet an identified need from specific stakeholders, standards sales or information, accreditation, services such as measurement and calibration, analysis or testing, inspection and certification (i.e. conformity assessment services), as well as training, consultancy work, applied industrial research and many more. These will be dealt with individually in this publication.

The picture for commercial income is somewhat complicated where a NSB is also administering mandatory standards for it is paid a specific fee or levy by law. Such fees or levies are usually paid by the very suppliers that provide the products or services that fall within the scope of such mandatory standards. Strictly speaking, these fees or levies should be seen as a form of taxation, and hence should not be considered as commercial income. They will be dealt with in a separate section of this publication.

### 2.2 Government funding

Government funding can come in a variety of forms. In the first instance, it may be a lump sum payment per annum, or per month, that the NSB

can allocate according to its own plans. This is unsophisticated funding and is a potential candidate for reduction or elimination since it is not of measurable benefit to anyone. It is therefore not considered to be very sustainable. Secondly, in more sophisticated government finance systems, the funding may be earmarked for specific ongoing activities or projects, e.g. standards development and publication, membership fees of international or regional organizations, supporting participation of national experts in regional or international standardization, or the World Trade Organization Technical Barriers to Trade (WTO TBT) Enquiry Point, etc. Thirdly, the government may allocate funding for specified one-off projects such as the establishment or refurbishment of laboratories, buildings or capital equipment. The latter two sources of government funding are usually much more sustainable.

Whatever the system in place in a specific country, it is obvious that governments worldwide are demanding more and formal accountability for the management of the funds allocated to the NSB as part of their drive to implement better governance in the public sector. While this may

be regarded as simply good governance and business practice, it is also one of the reasons why NSBs should ensure that they are always in a position to give proper account of expenditures.

An example of sustainable best practice is where the NSB provides an annual audited account to the treasury or the ministry of the public funds spent, the costs of the output, and most importantly, the outcome or impact that was achieved, measured in terms that are relevant to government objectives. If these outcomes or impacts have characteristics in common with government development policies, the NSB will be in a much better position to petition public funds for the next financial year. A proper business plan is a very useful tool in this respect. A formal, long-term commitment of the government in this regard is something that should be vigorously pursued by every NSB, irrespective of its organizational form.

An alternate funding model used in a few countries is where enterprises pay a form of standardization tax as a percentage of their turnover or their payroll. This tax is collected by the government and utilised to fund the NSB activities, arguing that all benefit, hence all should pay. However, lo-

cal industry may find the taxation unacceptable as it places them at a disadvantage *vis-à-vis* imported products, or they may argue they do not make use of any standards or other NSB services, and hence see no need to pay. Alternatively, if such a standardization tax is levied, industry then has some justification in believing it should get all the services of the NSB for free. Crucially, while this funding model has the advantage of spreading the cost of standardization across many enterprises, it may not encourage accountability, efficiency, or ensuring the work is targeted to satisfying identified needs.

### 2.3 Subscriptions or national membership fees

Enterprises, associations, institutions and other corporate bodies may be invited to become subscribing and contributing members of the NSB if the latter's statutes provide for such membership. In return, they may access specific benefits, such as: lower prices for national standards; a free information service on updates regarding new, amended or revised standards; membership of a standardization forum that provides recommendations to the NSB regarding its activities; the possibili-

ty to nominate members of the council or board of the NSB for consideration by the minister; etc. Obviously the list can be extended based on local custom and practice. But unless the subscribers or members perceive a real benefit, they will not feel motivated to become members.

A subscription or national membership scheme also raises awareness of the NSB and the benefits it brings to individuals, industry and the country. These benefits need to be compelling as it is usual for the general perception amongst industry that it is the government that is responsible for funding the NSB. Also industry, especially SMEs, may not be in a position to pay subscriptions or membership fees. The situation of industry associations in developing economies is a useful pointer in this regard. These associations may have more than half of their registered members with membership fees in arrears at any given time, so any organization must ensure the membership fee structure and the side benefits are carefully aligned with country realities and member needs.

While it is therefore likely that NSBs in developing economies may not see substantial income being generated from membership fees, anecdotal

tal evidence, where this has been pursued successfully<sup>7)</sup>, indicates that the membership is a very important platform to successfully promote other services, and that the members become “good will” ambassadors for the NSB within their respective sectors. The leverage effect that membership schemes can have on the financial sustainability is therefore potentially very important.

## 2.4 Document sales

### 2.4.1 Selling standards

Some of the larger NSBs in developed economies obtain a significant proportion of their annual income from the sales of standards and related products and documents. These could, for example, be a collection of all the standards dealing with the building industry, or a collection of all the quality management standards, on a subscription basis or not, with or without update services, etc. Examples of standards-related products are publications that provide easy-to-understand guidelines for an SME on how to implement the re-

quirements of an international or national standard as well as handbooks, compilations of standards on CD-ROM, etc.

It is not only the sales of national standards that are a possible source of revenue, but also foreign, regional or International Standards and related publications. In the case of foreign national standards, the NSB needs to enter into a commercial agreement with the counterpart NSB in question. Such a commercial arrangement could specify the basis of access to standards and other documents, price, commission on sales, etc. The same applies to regional and International Standards. In the case of ISO, the commercial exploitation of ISO International Standards or national adoptions thereof, are covered by ISO POCOSA 2005<sup>8)</sup>. Many other international standardizing bodies have similar agreements in place. The sales of regional standards are covered by relevant agreements at the regional level, and in some cases the NSBs obtain the sole right to exploit such standards commercially, e.g. national adoptions of European Standards (EN) in the European Union, or

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<sup>7)</sup> As an example, ICONTEC, the standards body of Colombia (a country of 45 million people) has an affiliate membership of more than 2500 organizations. The membership fees represent about 5% of ICONTEC's total budget of USD 20,5 million (2008).

the EA Standards in the East African Community.

The current situation in NSBs in many developing economies is quite different from the one of the larger NSBs as described above – income from document sales is marginal at best. However, in order to enhance their financial sustainability, it is an area that NSBs in such countries should give much more attention to. We are living in the information age and information is valuable.

The current reality in developing economies is that the income from standard sales is relatively low for a number of reasons such as the market is small as industry is not yet aware of the value of using standards. There are, however, numerous possibilities the NSB could pursue in order to increase its revenue from the sales of documents. Marketing and communicating the value of standards, providing a quick and customer orientated online service and providing collections of standards at competitive prices are some of the as-

pects that the NSB should consider to enhance income from this source.

#### 2.4.2 Price of standards

When determining the price of standards, a number of factors have to be taken into account. For example, the policy in ISO POCOSA 2005 states that the national equivalent of an ISO International Standard may be sold at a price lower than the original ISO standard, provided it is not made available for free. Also, the price of an ISO International Standard must also allow for payment of a royalty to ISO. An NSB must therefore ensure that its price structures for national standards continue to meet its international and regional obligations.

Other organizations may have different arrangements with respect to access and pricing. However, even for publications that can be obtained as free downloads through the Internet, the responsible organization, for example the OIML<sup>9)</sup>, may have ongoing obligations in place.

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8) ISO Policies and Procedures for Copyright, Copyright Exploitation Rights and Sales of ISO Publications.

9) *OIML B11: Rules governing the translation, copyright and distribution of OIML publications*, International Organization for Legal Metrology (OIML), Paris, 2007.

### 2.4.3 Print-on-demand system

In the past, once a national standard was approved, the NSB usually would print copies which then sat on the shelves waiting for a purchaser. Print runs of 1 000 or more copies were frequently made to get good per unit print costs but the uptake of the majority of the national standards in developing economies was counted in 10s rather than 1000s over their life span. Once a standard was revised, the remaining copies of the previous standard were shredded. This process was a potentially massive waste of scarce funds and required a lot of storage space.

This is why print-on-demand systems have been established. In this approach, standards are stored on a server as a PDF file and are only printed once an order is received for it. It need not be a very expensive or sophisticated operation. A small dedicated server, text that has been transferred to a PDF file format for ease of printing, a good office type laser printer that can print both sides of the page, a small binding machine and the NSB can be in business.

However, the documentation control of the files on the server needs to be exemplary to ensure that the client always gets the most up-to-date version of any standard that he or she orders.

### 2.4.4 IT-based standard sales

Users are increasingly expecting immediate availability of information and the world is rapidly moving to online access to many types of documentation. Standards are no different and NSBs must ensure that they establish the required IT technology to be able to provide standards against payment that is also online. Standards are increasingly harmonized, so customers can buy internationally recognized standards, such as ISO 9001<sup>10)</sup>, online from other NSBs. The local NSB should therefore consider, and be able to match, the offerings of other standards bodies either on the basis of price or enhanced service, or both.

## 2.5 Conformity assessment services

In order to satisfy customer demand and complement the funding from

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<sup>10)</sup> ISO 9001, *Quality management systems – Requirements*.

government sources and the lack of major income from membership fees or standards sales, many NSBs look to diversify sources of revenue to remain financially viable. Many offer conformity assessment services.

Calibration, testing and certification services can be, or are, a very useful source of income for NSBs in developing economies and can also help enhance the visibility of the NSB through this expansion of service. However, competition from multinational conformity assessment service providers that can claim international accreditation and superior market acceptance in target markets abroad must also be considered. One way to counter this is for NSBs to pursue recognition for their conformity assessment services through appropriate accreditation. Even if it is expensive for the NSB to obtain accreditation for its conformity assessment services, it is unlikely to survive without such accreditation.

The pricing policy of the NSB for its conformity assessment services has to be addressed carefully. Too often, perhaps because the NSBs in developing countries are mostly public entities, the pricing policies are set or approved by ministry officials or even the relevant minister.

These decisions are inevitably coloured by political expediency, and may bear little relationship to actual costs or wider market prices. In order to enhance its financial sustainability, the NSB must actively seek to be given the authority to develop its own pricing policies, which may be approved by the council or board of the NSB. Within these policies, the NSB should be able to negotiate prices for its services based on market realities, but which should cover the full operational costs. If government wishes to support industry with subsidized pricing of conformity assessment services, such subsidies should be dealt with outside of the NSB. Otherwise the market will remain distorted and inefficient, and the financial sustainability of the NSB compromised.

The pricing for regulated activities such as mandatory standards, compulsory certification or legal metrology measures for which industry has to pay by law should, however, not be at the sole discretion of the NSB. The appropriate political checks and balances are required to ensure that the NSB charges enough to recover expenses associated with providing the service and make a

fair return. Normally such fees or levies would be approved by the responsible minister on recommendation from the NSB, preferably after consultation with those that will have to pay.

### 2.5.1 Testing

In some developing economies, NSBs introduce testing as part of conformity assessment services either to meet or broaden customer demand and as an additional source of revenue.

The government in some of these countries actively supports the establishment of new laboratories, in turn often supported by the donor community. In fact, the biggest problem for an NSB may be over capacity at the level of the country due to duplication of laboratory facilities in several organizations. If this happens, the supply of skilled laboratory staff comes under severe pressure, generally none of the laboratories operate at viable throughput levels, and the whole system cannot be self-sufficient. Governments need to implement a strategy to bring some order to this part of the public sector and

laboratory services require a good business case before being established, even if it is with donor funds.

Before the decision is made to establish testing laboratories, the NSB must consider important financial issues to keep the laboratory operational. These include budgeting for and actually obtaining consumables (i.e. securing adequate foreign exchange to do so), ensuring continuous supply of electricity and water, proper equipment maintenance regimes and last, but not least, appropriate remuneration of skilled laboratory staff. All of these issues go hand-in-hand with the implementation of an appropriate competence system based on ISO/IEC 17025<sup>11)</sup>, ultimately leading to accreditation by an internationally recognized accreditation body. Failure to deal with these issues properly will only end in frustration, lack of financial sustainability and an underutilized laboratory.

When charging for testing services, laboratories should invoice government departments in the same way as they would invoice economic operators, including industry, even though

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11) ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories.*

pricing may include rebates. It does not help the long-term financial sustainability of the NSB if government departments or agencies can obtain free services from the NSB, even though it may be funded to a large extent by the government in the case of a public entity. All of the clients of the NSB should realize that conformity assessment services, standards information, etc. have to be paid for, and the principle of the direct beneficiary having to pay should be established early and be clear to everyone.

### 2.5.2 Certification

A significant number of national standards bodies provide certification services and obtain income from those activities, which is acceptable since there is no conflict of interests between certification and standardization activities. In order for a national standards body to be a neutral reference point for standardization, the two activities, which can be run within national standards bodies, should be managed separately. If revenues from certification services are

made available to support standards development work, they are generally contributed to the central budget.

Three types of certification schemes may be considered as part of the services that the NSB could deliver: products/processes/services, management systems and certification of competence of personnel. Product certification has a very long history as an integral part of the rise of many civilizations, whereas management system certification has only really come to the fore in the past few decades. The scope of product certification is gradually expanding to services, for example being taken into account in the revision of ISO/IEC Guide 65<sup>12)</sup>, due to become ISO/IEC 17065. This expansion opens new opportunities for NSBs operating certification of services. Product certification in developing economies suffer a number of disadvantages, notably if the product is exported and the product certification mark is not recognized outside the territory, whereas management system certification such as ISO 9001 or ISO 14001<sup>13)</sup>

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12) ISO/IEC Guide 65, *General requirements for bodies operating product certification systems*.

13) ISO 14001, *Environmental management systems – Requirements with guidance for use*.

can be accepted worldwide if the NSB is suitably accredited or is part of peer assessment programmes for the mutual recognition of certificates.

In some regions, there are moves to establish a single regional product certification mark which would facilitate movement of goods within the region. In this case, product certification schemes may be a very valuable and sustainable source of income for the NSBs in small countries. The third form of certification in which an NSB may engage is certification of competence of personnel, using the requirements of ISO/IEC 17024<sup>14)</sup> as the basis. Typical areas are the qualification of non-destructive testing operators, welders or quality auditors, but the potential scope is much broader.

Management system certification has become a major international business, with approximately a million ISO 9001 certificates issued by accredited certification bodies<sup>15)</sup>. Other

systems such as ISO 14001 (environmental management) and ISO 22000<sup>16)</sup> (food safety management) have not yet achieved the same level of recognition as ISO 9001, but are coming into their own as concerns about the environment and food safety increase. All of these certification systems should therefore be considered by the NSB, but only after a proper business case has been made. It is in this area that the competition from multinational certification bodies is greatest. The resources and effort needed to train and register auditors, to establish the internal controls of the scheme, and to obtain internationally accepted accreditation against ISO/IEC 17021<sup>17)</sup> should not be underestimated. Evidence from developing economies indicate that it takes three years on average before an ISO 9001 type of certification scheme becomes self-sufficient and sustainable, and it may require considerable investment during this time.

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14) ISO/IEC 17024, *Conformity assessment – General requirements for bodies operating certification of persons*.

15) A survey of the ISO 9001, ISO 14001 and other management system certificates issued worldwide is published every year by ISO Central Secretariat. Details regarding the latest survey can be obtained on the ISO website: <http://www.iso.org>.

16) ISO 22000, *Food safety management systems – Requirements for any organization in the food chain*.

17) ISO/IEC 17021, *Conformity assessment – Requirements for bodies providing audit and certification of management systems*.

An area that the NSB may be in the best position to serve is the small and medium enterprise (SME) sector, as the NSB usually has a lower cost structure than multinational certification organizations and therefore may be able to offer lower prices. In addition, the NSB may be able to take advantage of its own relationships and established structures in its own country to build business addressing this sector, thus avoiding the establishment of completely new and expensive infrastructures. Partnership between government and the NSB could also link a strategic national goal of encouraging SMEs to improve performance, e.g. through government schemes to support the SMEs financially to gain certification.

Schemes that pay back 50% of the costs after certification, and another 30% after an SME has maintained its certification for three years, provide a valuable service to SMEs whilst at the same time enhancing the financial sustainability of the NSB. The NSB should however resist any pressure from government to provide “cheap” certification services; the financial support should go directly to the SME so as not to distort the market. NSBs should charge for full costs and any financial support should be han-

dled separately. The future ISO 50001 on energy management will assist SMEs and may prove to be a valuable area for NSBs providing certification services to engage in.

Inspection of consignments is currently a lucrative business for many NSBs in developing economies. However, these inspection services are invariably linked to mandatory import inspection or mandatory standards which will increasingly come under pressure as developing economies become more export-orientated and adopt the common practices of the major trading blocs such as the European Union or Northern America by recognizing pre-inspection in the country of origin or having free trade areas with little or no inspection at the border. The same applies to the establishment of common markets in many developing regions. Inspection of consignments may therefore not be a long-term sustainable form of income, unless the NSB can successfully change the scheme to a voluntary, market-driven operation. In this case, the NSB needs to demonstrate the value and cost-effectiveness of such a scheme and it would be appropriate for the NSB to pursue accreditation to ISO/IEC 17020 to enhance its financial sustainability.

## 2.6 Metrology

According to the ISO publication *ISO Members 2009*, fundamental metrology, legal metrology and calibration services are provided by nearly half of the ISO members. This situation will probably remain for the foreseeable future, as many developing economies combine a number of fundamental standardization activities in one organization in order to gain economies of scale, especially regarding accommodation and administrative costs. In order to ensure the financial sustainability of the metrology activities, NSBs have to consider a number of aspects.

### 2.6.1 Fundamental metrology

It can be argued that the establishment and maintenance of national measurement standards (French: *étalon*) is a totally “good for the nation” activity, and therefore should be fully funded by the government. Fortunately, developing economies do not need to have the most sophisticated and expensive measurement standards in place – the accuracy actually required by industry and the authorities will suffice. Developing economies are also not involved in fundamental metrology research as practised by developed economies

such as Germany, the United Kingdom or the USA where the national metrology institute budgets are a multiple of those of most NSBs in developing economies. Once national measurement standards have been obtained, and here the donor community is often willing to be of assistance, mostly maintenance costs have to be budgeted for. These include the maintenance of the equipment, their calibration from time to time against primary standards of other more advanced economies, and maintenance of appropriate laboratory conditions, including operating costs.

### 2.6.2 Legal metrology

Legal metrology, sometimes called “weights and measures” if it deals only with trade-related measuring equipment, is a regulatory activity. But due to the common technology and the scarcity of trained metrologists, it is often combined with fundamental metrology and located in the NSB. Legal metrology has three aspects to it that are important from a financial perspective. These are:

- Type approval of measuring equipment falling within the scope of legal metrology legislation
- Calibration and verification of measuring equipment in use

- Control of pre-packaged goods.

With a few exceptions, most measuring equipment utilised in developing economies is imported. In addition, not many NSBs have the capacity to test the few types of new equipment for which approval is required every year. Therefore, type approval is usually based on test reports from accredited test laboratories abroad, e.g. an OIML test report. For the type approval certificate, most authorities charge only a small administrative fee. This is therefore not a major source of income.

Once measuring equipment is placed into service, it has to be calibrated and verified at regular intervals, i.e. once a year for scales in shops, or petrol pumps. Normally, users pay for this service. In developing economies, this service can be provided by the NSB as the responsible authority and it can be a good source of income. However, due to the fact that this is a legal requirement though, NSBs will have to make sure that they are able to provide the service throughout the country, not only in the big cities but also in rural areas. This makes it a logistical and financial challenge. It should also be remembered that the fees for calibration, and especially verification, are usually approved at

the political level, typically the relevant Minister. They will therefore tend to be on the low side because political considerations play a big part in setting them. The NSB should therefore be able to present clear information regarding the overall finances, to ensure that the fees are set at a level where the service is at least self-financing, and therefore sustainable. Consultative agreements regarding such fees with the main stakeholders are also very useful evidence to present at the political level.

The other activities of the legal metrology division in the NSB centre on market surveillance. This activity is extremely important as it ensures that the legal metrology requirements are actually taken seriously by the market. As this is fundamentally a consumer protection issue – a “good for the nation” issue – the government should fund this activity. Experience in developing economies indicates, however, that funds are frequently inadequate to ensure an effective system. Therefore, NSBs must secure long-term commitments from the government in order to render the whole service sustainable. This commitment should not only cover the salaries and overhead costs of metrology inspectors but, more important-

ly, also provide for adequate inspection equipment and especially transport, i.e. vehicles, fuel and maintenance, in order to do the job properly.

### 2.6.3 Calibration services

Calibration of measuring equipment used in production is of paramount importance for the acceptability of the quality of products. As developing economy industry endeavours to become more export orientated, this aspect of quality control increases in importance. Providing a proper calibration service can therefore be a very useful addition to the finances of the NSB, whether it is the national institution responsible for metrology or not. In this case, the calibration service will have to be appropriately accredited to ISO/IEC 17025, and the pricing will have to be aligned with market realities. The activity needs to be self-financing, i.e. income should be in excess of total expenditure in order to build up a reserve for future development, for modernizing calibration equipment, and for continuous training of the metrologists, etc.

## 2.7 Accreditation

In a few instances (five cases within the ISO membership at the time of writing), NSBs are involved in ac-

creditation. This should not be a conflict of interest if the NSB does not provide any conformity assessment service. Studies have shown that accreditation can become self-financing once 200 to 250 laboratories and certification organizations have been accredited. This is seldom the case in developing economies, so it is not unusual for governments to fund the accreditation function over an extended timeframe. For this reason, establishing more than one accreditation body in a developing economy, e.g. under different ministries for different sectors, is likely to render the whole system financially non-viable.

It should also be clearly understood that to gain international recognition for the accreditation division, e.g. become a signatory of the International Laboratory Accreditation (ILAC) and International Accreditation Forum (IAF) recognition arrangements, can take a long time, typically several years. During this time, the accreditation division will find it difficult to gain customers, as most will want internationally recognized accreditation and would therefore tend to utilise foreign, recognized accreditation organizations. The financial sustainability of an ac-

creditation division within the NSB of a developing economy therefore has to be considered extremely carefully. There are examples of national or regional accreditation bodies in developing economies partnering with ILAC and/or IAF-signatory members from more advanced economies in order to reduce the time taken for achieving international recognition. Accreditation units within NSBs may wish to follow the same path.

## 2.8 Training services

The NSB in a developing economy is often a centre of excellence with regard to technology, especially if it also provides testing and certification services. This is an inevitable result of one of the main objects of standardization, namely the transfer of appropriate technology and good business and organizational practices. It is therefore only natural that the NSB should provide training related to specific standards and even standardization in a broader sense.

NSBs may provide training services in areas where there is a demand. This means that they need to be in close contact with industry and other sector organizations to anticipate needs. It has been shown that once an NSB

offers good training schemes, e.g. with regard to management system standards, then trainees are very likely to come back to the NSB once the decision is made to have the company certified to ISO 9001, ISO 14001, ISO 22000, etc. The income derived from providing training services is a useful and sustainable source, but just as important is the fact that such services help the NSB to become better known to potential customers of its conformity assessment services. It should be noted however, that where an NSB provides training and also conformity assessment activities, the training provided should be generic in nature.

In some countries, training institutions may receive a formal recognition by government structures, e.g. ministry of education or similar, to ensure that the quality of education and training in the country meets specified minimum criteria. In addition, in many countries, industry may claim tax benefits if they have their staff trained at such recognized institutions. Where such systems are in place, the NSB should be suitably recognized so as to provide its clients with the assurance that it is fully integrated into the national system of training and education, and in this

way provide an additional financial incentive for industry to have their staff trained at the NSB.

## 2.9 Consultancy services

Income from consultancy can be lucrative, but it has associated business risks and restrictions. For example, the accreditation requirements for certification bodies do not allow the latter to offer any consultancy services. As accreditation is non-negotiable, this means that this source of income is no longer available to NSBs that offer certification services. The NSB would, most likely, concentrate on the conformity assessment services it offers and the income derived, instead of running the risk of losing this business by also offering consultancy services.

In practice, there are ways to address the inherent conflict of interest. A certification body cannot set up a separate legal entity to provide consultancy since such a structure does not actually result in a legal separation of the activities. This is because the consultancy would merely be in a subsidiary to the certification business. However, establishing a holding company that has two separate subsidiaries, a legal entity that is a certification body, and a separate legal

entity that is a management system consultancy, does achieve legal separation. However, additional controls should be implemented. For example, the certification body cannot immediately certify any client consulted by the related management system consultancy body; only two years after the consultancy has ended would the certification body be in a position to certify the company. Whether such a construct would be possible in a particular developing country would depend on the legal system, customs and practices, and frequently, government policy as regards to government-owned NSBs.

## 2.10 Mandatory standards

The income from testing and certification services mandated by law, including import inspection, is a very useful and often a major source of income (in some cases more than 80% of the income of the NSB). In cases where standards are mandatory, the NSB may, in effect, be given a legal monopoly on certain types of inspection, testing and certification without the NSBs having to market their services, show technical competence or to be especially customer orientated.

This system will increasingly come under pressure as developing economies

negotiate trade agreements with developed economies that provide for mutual acceptance of tests and certificates.

Whatever the case may be, if the NSB is currently heavily dependent on such “guaranteed” income and if it is a major component of the total income, the NSB should move to diversify its sources of revenue as such “guaranteed” income may not be sustainable in the long run and change may come more quickly than envisaged.

If a government decides to separate activities related to the setting of technical regulations and market surveillance from those related to the development of standards and related conformity assessment services, it will invariably start a consultative process with the NSB. The NSB should then do everything possible to ensure that the emerging technical regulation regime, i.e. the administration of mandatory standards, is based on internationally accepted good practices. This entails three issues, namely:

- Utilizing standards, whether national, regional or international,

as the basis for technical regulation, even to the extent that they are directly referenced in the relevant technical regulations<sup>18)</sup>

- Providing suppliers with a choice of technically competent conformity assessment service providers (to be paid for by the suppliers at market related prices)
- The regulatory authority putting emphasis on product approvals before being marketed if necessary, operating an effective market surveillance system and applying sanctions where products and/or suppliers fail to meet regulatory requirements.

Utilizing standards in this manner will provide the NSB with the leverage that all normative type documents developed by other regulatory authorities responsible for environment, health, transport, communication, etc. can then be published by it as national standards, as much as possible by national adoption of international standards<sup>19)</sup>. This helps the country in complying with the WTO TBT Agree-

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18) *Using and referencing ISO and IEC Standards for technical regulations*, International Organization for Standardization, September 2007, ISBN 978-92-67-10454-6

19) ISO/IEC Guide 21-1, Regional or national adoption of International Standards and other International Deliverables – Part 1: Adoption of International Standards

ment, establishes a reliable source for the documents, and consequently enhances the financial sustainability of the standards development and publication activities of the NSB.

Regarding the provision of testing services, the NSB is then in a very strong position to become the conformity assessment service provider of choice to suppliers that have to show compliance of their products to the regulatory authority, both for the domestic and external markets. An added advantage is that the NSB can then provide testing services under a number of technical regulation regimes of various ministries, and is no longer seen as an organization related to a sole ministry, most often in charge of industry and/or trade. Demonstrable technical competency, e.g. through accreditation of its laboratories, is a prerequisite for attaining this position. Successfully pursuing such arrangements will enhance the financial sustainability of the NSB conformity assessment services considerably, help compensate for lost levy income from administering mandatory standards, and enhance the possibilities of the accredited services also being acceptable to export markets and their regulatory authorities.

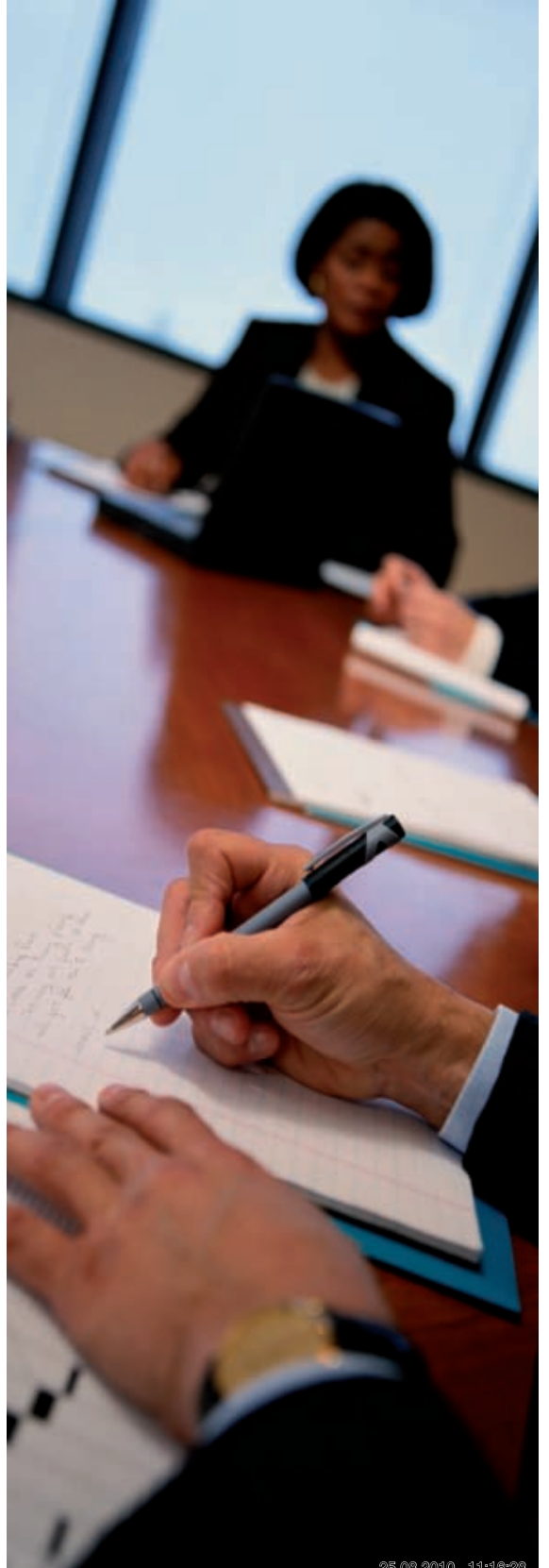
The key point to emphasise here is that these strategies are not for the self-interest of the NSB. They help improve the competitiveness of industry in export markets, improve consumer choice by allowing competition in the local market from goods and services that meet a recognized standard and thereby promote economic activity and growth.

## 2.11 Donor support

The developed economies can provide significant financial assistance to NSBs in many developing economies and economies in transition either through their own development agencies, or through international organizations such as United Nations Industrial Development Organization (UNIDO) and others. Such assistance is extremely welcome, as it can help an NSB to develop much more rapidly than what would otherwise have been the case, and to gain recognition for its services. Such support does, however, also have financial sustainability issues.

The donor community is increasingly demanding very clear commitments and measurable and tangible contributions from the recipient organizations, such as providing buildings, environmental controls, staff, etc. In

other words, the support is geared towards establishing technical infrastructure – the accommodation, manpower, provision of consumables and maintenance of equipment is the responsibility of the NSB. Likewise, the support is geared towards the real and demonstrable “needs” of the country, and not only to satisfy the “wants” of the NSB. A common theme running through the design of many of the more recent donor projects is a very clear indication of the output, the outcome and the impact. These developments are to be welcomed, as they support clear objectives associated with financial sustainability. Clearly, the NSB should not consider that donor support would help to balance the annual budget – this remains the sole responsibility of the NSB. Long-term financial sustainability of the NSB will depend on not only having all of the above but in ensuring that the assets that have been developed are being used effectively to meet clear and relevant needs amongst industry, consumers and government in the country and that these are generating the cash required for the activity over the long-term.



## 3 – Financing of standardization work

### 3.1 Principles

In section 1.4, the principle that those benefiting from standardization should contribute most to financing it, has been established. In any economy, but especially in developing economies, this is not easy to implement. NSBs are frequently required to provide the bulk of the finances to cover costs, a situation no doubt exacerbated by a commonly held view by industry that the government is responsible, hence the government should pay. This attitude is a fallacy, and the NSB must convince industry that having a strong and responsive NSB is vital to their sustainability, be it economic, environmental or societal. At the same time, the NSB should not carry on with practices that encourage industry and authorities to shirk their duties, e.g. by perpetuating the common practice of paying technical committee members an attendance fee.

### 3.2 Costs related to standards development

The costs related to standards development at the national level will depend to some extent on the level of decentralization practiced by the

country. In most developing countries, the NSB should remain responsible for the secretariat of the technical committees (TCs), subcommittees (SCs) and working groups (WGs). This should be done to ensure that the NSB maintains a watchful eye over the progress of national standards development, and to ensure that the country complies with its WTO TBT Agreement obligations of providing a six-monthly overview of all the national standards development activities. The Chair of TCs, SCs and WGs can and should be handed to a prominent, active, competent and important stakeholder within the relevant committees, either from industry or authorities. Appointing a good Chair can substantially lower costs related to standards development as the work is well organized, deadlines are respected and commitments made are kept. On the other hand, having an incompetent Chair can significantly add costs related to standards development. The NSB will have to budget for the types of costs enumerated below.

- a) Remuneration of staff in the standards development departments. These costs should be the complete “cost to company” for

each individual and not only direct salaries. Any allowances such as medical aid, pension scheme, housing subsidy, etc have to be budgeted for.

- b) Accommodation, electricity, water, telephone and IT system infrastructure costs. These costs should be allocated to the standards divisions through an appropriate management accounting system so that they do not remain hidden in a “black box.” Managers can only manage properly if they are given appropriate cost information.
- c) Office consumables such as paper, printing cartridges, copying, files, etc. This seems to be a mundane list, but it is frightening how often a standards division in a developing country comes to grinding halt because there is no paper or printing cartridge.
- d) Transport, accommodation and daily allowances for NSB staff should the TC, SC or WG meetings take place outside of the NSB. In addition, the NSB staff may have to visit industry or authorities during the development of the initial committee drafts, and this has to be budgeted for.

- e) Testing costs on rare occasions when TC, SC or WG members wish to have comparative information on qualities of various products on the market when a standard is being drafted for that product.
- f) The cost of maintaining assets such as buildings and equipment, including the depreciation of these assets. Appropriately maintained equipment is vital as is making allowance for its eventual replacement because of age, new technology or changed use.

### 3.3 Costs related to international or regional standards development

Part of the costs related to international or regional standards development can be attributed to national activities to ensure an effective presentation of national interests in international or regional level. A useful list that can be utilized as an *aide memoire* follows.

- a) Costs related to the preparation of national positions; including the costs of the involvement of experts, national travel and national secretariats.
- b) Costs related to the actual participation in international or regional meetings, including participation

of experts, international or regional travel, accommodation and daily allowances.

- c) Administrative costs of international or regional TCs, SCs and WG Secretariats if they are hosted by the NSB.
- d) Costs of hosting international or regional meetings. Although the participants should be responsible for their own travel, accommodation and daily allowances, the host NSB still has to provide venues, refreshments, local transport if necessary, copying, printing, and Internet access.
- e) Frequently, the host NSB would also host a special reception in honour of the participants, and these costs have to be provided for. Sponsorship may be obtained if the NSB approaches government departments or industry well ahead of time.

### 3.4 Membership fees of international or regional organizations

Membership of the international or regional standards organizations also carry a cost. Both ISO and the International Electrotechnical Commission (IEC) require members to pay fees for them to cover their head of-

office and other costs. These fees are often calculated by taking the GNI and other factors of the economy into account. There is also a difference in membership fees, as in the case of ISO, based on whether the NSB is a subscriber or correspondent member or a member body. The membership fee varies from organization to organization; hence the NSB must find out what the costs are for its membership and budget for it.

Sometimes, smaller NSBs are supported by a donor organization to become a member of ISO or IEC and then, when the donor project comes to an end, the NSB does not keep up membership payments and is then suspended or worse, the membership is ended. Such a development does not do the image of the NSB any good, so it is important that a long-term source of funding is identified and the benefit of the membership is clearly stated and reviewed from time to time.

Many times the membership fees are questioned as being too high for developing countries, but it should be remembered that with the appropriate category membership, with ISO and IEC specifically, the NSB is given full usage of International Standards. If they were not a member, these would have to be purchased, and at an aver-

age unit price of USD 90, the 20 000 or so standards from these two organizations alone would cost the country USD 1 800 000 for a single set of standards for one-time use. Seen in this light, the membership fees which are less than 2% of this number for smaller countries, are good value for money.

Obviously, the same arguments apply in the case of regional/subregional standards organizations (RSOs). It should be noted that while some RSOs are purely membership-based organizations, others may be subsidiary entities of regional or subregional economic communities (RECs) or trade blocs. Thus, the nature and depth of involvement by NSBs in regional standardization activities depends on the political constructs of the region. Membership in organizations related to RECs is mostly automatic, as the NSBs frequently have to represent their countries in these regional organizations, not only for the harmonization of standards but many other issues related to trade and typically technical regulation as well. On the other hand, membership-based organizations may encounter financial difficulties for operation due to low level of subscription by members.

### 3.5 Sustainable financial principles

As a matter of principle, the NSB should be encouraged to take steps toward financing its participation in international, regional and national standardization activities by the interested parties who are the beneficiaries of such standards. The following are some good practice guidelines based on the different types of costs discussed in detail in the previous sections.

- a) Costs for preparing national standards, or national positions to be presented at regional and international level, should be covered mainly from contributions of the interested parties. The NSB will be responsible for secretariat costs. In some cases, e.g. for the development of basic standards used in many sectors, a contribution from the central budget may be considered. Experts participating in the national meetings should be paid (including travel costs) by the interested parties they represent.
- b) Costs for participating in international or regional meetings, i.e. experts' participation and travel, should be covered directly from the interested parties participating. The experts work at the national level on an honorary basis.

In some cases, it may be appropriate to create a sector-related funding pool for international travel in order to have the interested parties share the costs of international representation.

- c) Costs of international TC, SC and WG secretariats should be covered from contributions of interested parties, including public institutions. Before taking on the responsibility of an international secretariat, appropriate negotiations with the private sector and the authorities should be made to ensure that adequate resources will be provided and that the support will be sustained. The NSB holding the secretariat bears high responsibility, but has much influence on the effective conclusion of the international work.
- d) Costs related to regional standardization work is somewhat different. Mostly this work will have been mandated by the respective governments that make up the membership of the regional structures; so they should provide adequate funding. On the other hand, private industry also has much to gain from harmonization of regional standards, especially those that form the basis of future re-

gional technical regulations, so that a similar scenario as under (b) above should be pursued.

- e) Costs for hosting international meetings should be covered from direct sponsorship, including specific government funding of the interested parties on a case-by-case basis. ISO rules stipulate that accredited delegates shall not be obliged to pay a fee as a condition of their participation in ISO meetings. However, in very exceptional cases (e.g. large and complex meetings), some charging mechanism may be necessary, but such mechanisms shall be approved on a case-by-case basis by the Secretary-General of ISO.
- f) Costs for ISO, IEC or other membership fees should be taken from the central budget of the NSB, as this is a general precondition for participation in international work. There are numerous cases where NSBs are fully financed by governments or at least on par with financing provided by the private sector. In such cases government funds are usually earmarked for specific uses such as membership fees of international and regional standardization organizations.

44 *Financing NSBs*



## 4 – Financing conformity assessment services

### 4.1 Principle

Conformity assessment services are provided worldwide by a myriad of organizations, from both the public and the private domain, small and large. Ultimately, these services should be provided at market related prices and they should not be cross-subsidized within the NSB by government funding in order to ensure that market relativity is maintained. The NSB should in no case have a legal monopoly as this is bad for the economy, denies potential clients a choice, and limits market forces that ensure adequate service levels for the price paid. Arguments regarding technical competency are best answered with an appropriate accreditation system.

### 4.2 Establishing conformity assessment services

Establishing conformity assessment services is an expensive business, whether these are laboratory, inspection or certification services. Therefore, many developing economy NSBs look to the government or the donor community for support in this regard. This may be appropriate as the private industry in developing economies is seldom in a position to develop such services. And

the multinationals will only appear once an adequate market has developed requiring such services.

In establishing laboratory services, the NSB will have to do a proper market analysis, and has to consider issues such as:

- **Is the** service required by local private industry, by importers or by the regulatory authorities or both, and how consistent is the need?
- **What is** the extent of the business now, and what is the forecast for the future?
- **Who else** is providing similar conformity assessment services in the country or in neighbouring countries, are they public or private entities? Is there enough business for more than one?
- **What infrastructure** is required for establishing laboratories, e.g. accommodation design requirements, air-conditioning and humidity control, dust-free environment, electricity and water supply?
- **What are** the main types of equipment required and at what capital costs?
- **What are** the running costs associated with the equipment, e.g. consumables, glass ware, gases, reference

materials, chemicals, and where can they be obtained? Is the foreign exchange readily available as these normally have to be imported?

- **What are** the proficiency testing requirements and how can they be dealt with in a developing economy?
- **Are adequately** trained and skilled personnel available in the country or do they have to be specially trained?

Only when a decent business case can be made, including a judgement call on financial sustainability, should the NSB continue with the establishment of laboratories. In some very specific cases, the government may wish to establish testing capacity for strategic reasons, but then it should be made clear that the government will have to maintain financial support to such a laboratory, possibly over a very long time.

The same sort of discipline should be followed for the establishment of product or management system certification services. In the case of these two, the training and registration of quality management auditors will pose additional challenges. In all cases, the investment that is required before the service becomes self-financing and later shows a surplus income over costs, has to be planned for. This can be for as long as three to four years, and can be

substantial. This funding has to come from somewhere but must be secured before the project gets under way.

### 4.3 Market related pricing

*“Cost is a fact, price is a decision!”* goes an old saying. Hence, once the cost of the service has been established, a decision has to be made what the pricing policy will be. The NSB should in any case always endeavour to cover the full costs with the income derived from a specific service, otherwise financial sustainability will be doubtful. The NSB should also try to steer clear of any cross-subsidization within its ranks. Issues that have to be taken into account when setting pricing policies and actual prices include:

- **What is** the purchasing power of the clients?
- **Is the** service to run at a profit in order to set aside funds for further development, or should it just break even?
- **What is** the pricing policy of competitors?

The managers should also have the freedom to negotiate prices with preferred or major customers, as long as they operate consistently within an overall framework or policy that may

have to be approved by the NSB's council or board. The NSB should in any case, whether it is a government department or a public entity, ensure that the price of its services is not set for political expediency and certainly not at the political level, i.e. by the responsible Minister or other staff in the ministry. Political interference, although still prevalent in developing economies, hampers the proper financial management of the NSB.

#### 4.4 Financing SME support

In a developing economy, the industry or producer segmentation shows up as a few large enterprises, often with multinational connections, and a vast majority of SMEs. The definition of what an SME is may differ from country to country, but in essence these are typically family-run businesses with less than 25 employees, frequently as small as two to five people. It is quite obvious that the purchasing power of individual SMEs is nowhere near that of the large enterprises. On the other hand, the SME sector also needs the testing, calibration and certification services of the NSB.

In many developing countries, the government has policies in place to develop the SME sector in order to build up the manufacturing or producer industry, to enhance the overall quality levels of local

production, and to increase the export potential of the country. It is therefore frequently expected of the NSB to support these policies by providing “subsidized” services to the SME sector, sometimes even for free. Whilst this may be a laudable endeavour, it does little for the long-term financial sustainability of the NSB. A much better approach is for the government to use the funds that they would have given the NSB to provide rebate payments to such SMEs once they have paid the NSB in full for its services.

In this way, SMEs get used to the notion that such services cost money and provide real value for the expenditure, the conformity assessment market is not distorted, the government has better control over which enterprises get supported and the financial sustainability of the NSB is enhanced. A typical example would be for the Ministry responsible for trade and/or industry to pay back, on application by the SME, 50% of the ISO 9001 certification fee once it has been certified, and to follow up this payment with another payment of say 30% after three years if the enterprise has successfully maintained its certification. The beauty of such a scheme is that it is also feasible in the case of the NSB being a private organization, rather than a public one.



## 5 – Financial management

### 5.1 Principles

Financial information, both expenditure and income, is a reality that no manager in a business can afford to ignore. This principle is just as relevant to a manager in an NSB, be it a government department, a public entity or a private organization. If an NSB wishes to grow and to achieve financial sustainability, managers must know and understand the costs and income of their divisions, and manage accordingly. In this respect, it is important to understand the difference between financial accounting and management accounting.

Financial accounting, i.e. income and expenditure statements, cash flow statements, balance sheets, notes to the financial statements and the auditor's report are important to tell the outside world, i.e. the council, ministries and other relevant external stakeholders, what the financial health of the NSB is all about. The format of the financial statements is mostly determined by legislation which the NSB obviously has to comply with, or in the absence of country specific legislation, there are international practices that can be followed.

Management accounting, on the other hand, has to do with the additional detail that managers need to manage their department successfully, financial information that would normally not be provided to, or needed by, outside stakeholders.

### 5.2 Managing expenditure

In order to ensure financial sustainability, the NSB will have to prudently manage costs that relate to its activities, many of which have to be incurred to ensure that its services are acceptable to paying customers. It should be borne in mind that one-off expenditure is frequently accompanied by recurring expenditure. A good example is the purchase of a vehicle, which then incurs running and maintenance costs without which it is useless. It is in this area that the NSB has to be especially vigilant, e.g. when donor funding supports capital expenditures on equipment, the recurring costs are then the responsibility of the NSB and often not adequately considered.

### 5.3 Recurring expenditure

Recurring expenditures that have to be catered for include (but are not limited to) the following:

- Remuneration of staff
- Accommodation costs
- Membership and active participation in relevant international and regional organizations
- Accreditation costs for laboratories, and inspection and certification services
- Electricity and water supply
- IT and telephone services
- Consumables for laboratories
- Maintenance of laboratory equipment and air-conditioning
- Maintenance of accommodation, e.g. laboratories and offices
- Marketing and promotion of the NSB and the work it does
- Printing costs for standards and other documents for sale or distribution
- Depreciation and amortization of assets owned by the NSB
- Transport costs, vehicle maintenance and fuel
- General administration, including printing, papers and postage.

Foreign exchange is a major issue in many developing economies. The NSB will have to ensure that it can obtain adequate foreign exchange to fund recurring costs that have a

foreign exchange component. These include the membership fees of international organizations and attendance at their meetings. Even laboratories can quickly grind to a halt if the foreign exchange to purchase vital laboratory consumables is not available.

### 5.3.1 Funds for capital expenditure

Capital expenditure has to be provided, for example, for new vehicles, new equipment, upgrading of accommodation and environmental controls and new IT equipment. The funds for capital expenditure can come from the government in the case of public NSBs, or it can be provided through funds the NSB generates through its services or both. In some cases, initial investments in equipment may be donated by external agencies, but they will need to be replaced or at least kept functioning over their useful economic lives.

A budget for capital expenditure should be developed, for instance over a five-year basis, with allowance made for the replacement of assets as well as for capital expenditure on new projects or equipment.

### 5.3.2 Financial security of the organization

A NSB, even a public NSB, should be authorized to maintain a general fund where surplus income over expenditure can be transferred to so as to meet unexpected financial needs or to allow activities to continue through an economic downturn which might otherwise limit revenue from usual operations. The amount in the general fund may be invested in low-risk investments that are easily converted to cash if required.

To limit speculation and to implement proper control, the rules for such funds may cater for a maximum that can be kept by a public NSB (e.g. 50% percentage of its annual turnover), and they can only be invested in financial institutions approved by the council or board or the minister. In the case of private NSBs, these matters will be dealt with in the articles of association and by board decisions.

The effect of developing and maintaining such a general fund is to foster the long-term sustainability of the NSB and to preserve the independence of the organization in times of financial stress. These are worthwhile

objectives when the purpose of the NSB is considered.

### 5.4 Management accounting

Financial accounting is ultimately geared to the preparation of the annual financial statements which are an indispensable aid for the appreciation of the financial situation of the NSB. However, as an aid to day-to-day management, they suffer from two following distinct disadvantages.

Firstly, they are *historical*. If the situation is bad, corrective action should have been taken by management long before annual accounts are prepared. This is also the reason why many organizations prepare income and expenditure accounts much more frequently, i.e. monthly.

Secondly, they are *global*. Management is concerned with detailed, or segmental, operating results of each aspect of the NSB's business activities, in addition to the overall position revealed by the annual financial accounts.

If, for instance, the testing services show an excess of 6% on total income, then the management of the NSB might be very happy considering the vagaries of testing services in general. But a completely differ-

ent picture may emerge if the, for example, four testing laboratories are considered separately. It may transpire that one of the laboratories is running at a massive loss, whereas two are just breaking even, and one is making a very nice “profit.” This means that one laboratory is heavily subsidizing at least the loss-making laboratory, perhaps even the other three laboratories. This may be unavoidable or even established policy, but at least management should be fully aware of the situation, and it is then in a position to take whatever action it deems necessary.

Clearly, there is a need for something additional to financial accounts if management is to make sense of and the best use of its financial information. This need is filled by management accounting, sometimes also known as cost accounting, which provides up-to-date accounting information on the detailed operating results of individual jobs, processes, divisions or any other segment of the NSB’s business activities. How is this to be achieved? The following sections give an indication of some of the elements of management accounting available to an NSB. The NSB, how-

ever, will do well to consider the establishment of a financial division that can ably support the NSB in developing proper management accounting systems, and to teach the managers of the various divisions a basic understanding of this financial information, so as not to manage only on a technical level.

#### 5.4.1 Direct expenses

The first step is to separate, evaluate and add together those items which can be related conveniently and directly to a job. These items are generally one of three types, namely:

*Direct labour:* Productive labour hours directly employed on the job are obtained from time sheets or job cards completed by operatives and priced at the appropriate wage rate

*Direct material:* Quantities of materials directly used on the job are obtained from stores requisitions, material specifications or other stores documentation and priced at the appropriate price of the material used

*Direct expenses:* Any other expenditure incurred specifically for the job – e.g. subcontracting parts of the testing to another laboratory – is obtained from relevant invoices.

Only operatives directly working on the job can be regarded as direct labour. Their hourly rates should take into consideration their availability as well, i.e. holidays should be accounted for. All other labour is classified as “indirect labour” and should be included in indirect expenses (see the next section). Similarly, only consumables and material which can be directly identified with the job is regarded as direct. All other consumables, such as glassware, detergents or grease used to oil machinery, are classified as “indirect material” and are also included in indirect expenses.

#### 5.4.2 Indirect expenses (overheads)

After dealing with direct expenses, there remains a large volume of expenditure which cannot be related directly to a particular job because it is incurred generally for all jobs. Within this group are included items such as general laboratory maintenance, supervision, materials or consumables that cannot be allocated to a specific job, management salaries, electricity, water, telephone, transport, paper, printer inks, depreciation and general NSB overheads.

A big decision is how to allocate these indirect costs to a specific job, i.e. what proportion of the indirect costs shall be absorbed by, or recovered by, the specific job. A simple solution is to add a percentage, based on past experience, to the direct costs. An analysis of operating expenses charged in the previous year's profit and loss statement might reveal an appropriate percentage, i.e. typically 300%. Therefore, if the direct expenses of a job are USD 250, then the indirect expenses can be calculated as USD 750, and the total cost will be USD 1 000. This means that the price for the job should not be less than USD 1 000, better still with a mark-up of some kind, if the NSB wishes to remain sustainable in the long run.

Allocating the indirect costs (or overheads) as a flat rate across the board is the easy way out, but may not be equitable. Overheads are not incurred uniformly throughout the NSB – some divisions are more expensive to operate than others. In addition, a large part of the overhead is incurred in relation to the passage of time, hence the longer a job takes, the greater perhaps should be its absorption of the overhead. Therefore, a method of absorption must be found which acknowledges these

variables. This type of analysis goes beyond the scope of this publication, but the NSB is urged to provide these sorts of tools to their managers so that they can manage more effectively, thereby enhancing the NSB's financial sustainability.

The examples cited above relate to a laboratory, but the principles hold true for any of the service offerings of the NSB, from standards development and information, metrology, inspection and testing through to certification activities. In this way, it is possible even to gain insights into the real costs of developing standards as a cost per page for example, i.e. the total cost of production of the standards, plus relevant overheads, divided by the number of pages published annually. One of the key performance indicators of a standards division manager can then be to ensure that the cost per page comes down on an annual basis, or at worst, remains stable. A laboratory manager on the other hand has to show an excess of income over total expenditure.

## 5.5 Some pitfalls for NSBs

Unfortunately, financial management in NSBs in developing econo-

mies is often undermined by less than optimum practices. These have sometimes developed over time, or are part of a general pattern in public enterprises. In addressing financial sustainability, these have to be considered carefully by NSBs and a better solution be found than what is generally practiced. Two typical examples are discussed below.

### 5.5.1 Attendance fees

One typical example is the common practice of paying members of technical committees "attendance fees" notwithstanding the general principles of standards development enumerated in Part 3 above. This has two consequences. Firstly, the budget of the NSB is extremely stressed resulting in a restriction on the number of technical committee meetings that can be held during the year. Any increase in standards development activity demanded by the market requires funds the NSB may not have, and therefore the NSB is hog-tied by its own rules. Secondly, it may be debatable whether the most appropriate people attend the technical committee meetings, or whether many just come to get the "attendance fee." The argument of the NSBs that if they do not pay, then nobody

comes, needs to be reconsidered – maybe the standard is not really needed, maybe participants have just fallen into bad habits. If such a practice is followed within an NSB, it needs to be reconsidered by the management, and everything possible should be done to get back to sustainable and justified principles of standards development.

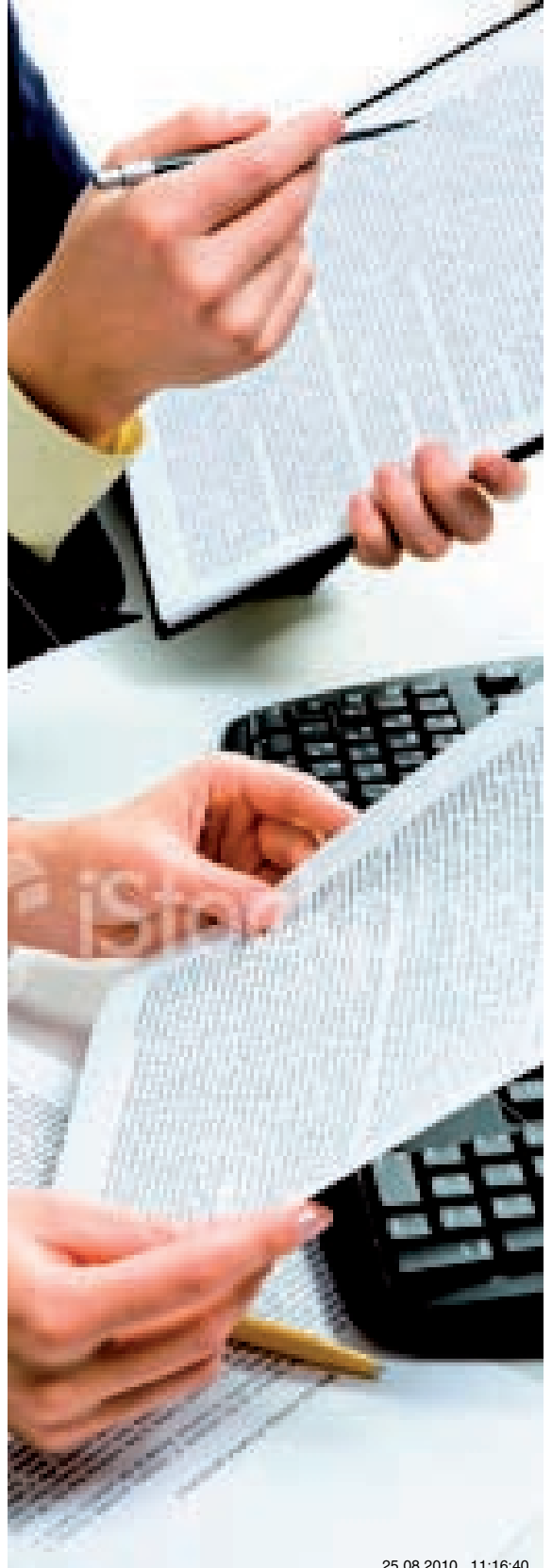
### 5.5.2 Internal trading

The equitable allocation of the income in an NSB, that provides a variety of services such as testing and product certification that are interdependent, is an issue.

It is common for clients, for example, to pay the NSB a lump sum for a product certification licence. This fee has to cover the costs of testing, auditing, surveillance visits and all the other activities the NSB engages in to run the scheme. When the client pays the NSB, the income is generally allocated to the product certification division. But the products that it samples are tested by the laboratories. The question is how should the laboratory recoup the costs incurred? Arguing that it does not matter, and that the laboratory should do the testing for “free” for

another division of the NSB, is the wrong approach.

The testing for product certification can be a very large part of the laboratory’s activities. Hence, their management accounts should reflect an internal allocation of the income received, and the product certification division management accounts should reflect an internal transfer of income to the laboratory to cover their costs. In this way, the financial information will not be skewed towards the product certification division, looking good with a massive “profit”, when in fact the NSB is losing out because the laboratory costs are not properly accounted for. This would also ensure that the laboratories are given their appropriate due when analysing the finances of the various divisions. Failure to do so can lead to a situation where the laboratory’s contributions are not appreciated and, as a result, disastrous decisions are made on such incomplete financial evidence.



## 6 – Budget practices

### 6.1 Business Plans

Any business activity must be planned. However, although all managers plan in some way or another, there are considerable differences as to how this is done. As the NSB's business grows in size and complexity, responsibilities have to be allocated as personal lines of control by the CEO are severed. The person on top no longer has everything at his or her fingertips and, similarly, the manager of the laboratory may not be aware of the detailed actions of the manager of the certification division, and the standards manager operates in isolation from them all. Under these circumstances, there is a compelling need for the NSB to formalise planning procedures and control techniques. Planning and control embrace the following five interrelated and interdependent aspects.

*Long-term planning* on a strategic basis which looks at the NSB, its markets and its environment over a number of years ahead, in order to develop an overall strategy for the NSB's long-term growth and development.

*Strategic planning* (including capital expenditure budgeting) which forecasts how future cash flows will be affected over the life of a specific project or development. Each project under consideration should, however, be linked to the long-term plan.

*Short-term planning* or *budgeting* on a tactical basis which takes the first time-period (usually annually) of the long-term plan, together with all ongoing projects, and develops a financial blueprint for achievement of this part of the long-term plan.

*Monitoring actual results* on a frequent and regular basis, comparing them to budgets which have been produced and highlighting variances or deviations from the plan for management to take action on.

*Ongoing control* of day-to-day activities of the NSB's business, in order to ensure that actual results are in line with the short-term plan; or to give the earliest warning that either the short- or long-term plan cannot be achieved and perhaps should be revised or updated.

The above elements should be formalized in a business plan which should be reviewed at least annually.

This is the place where the map is drawn, for as every traveller knows, a journey is a lot less risky when you have directions. The business plan is the document that the Council or Board will assess and approve as to whether the NSB is going in the right direction; the document that the NSB can utilise to garner funds from government; and, in the final analysis, the document against which the performance of the management of the NSB should be evaluated.

A good business plan not only contains numbers, but deals in a fair amount of detail with the key drivers of the NSB's success or failure, i.e. the people involved, the opportunities, the context or big picture and the risk and rewards. The NSB is therefore well advised to utilise effective business plans to enhance its financial sustainability. It should not be a massive tome with hundreds of pages – nobody will read it or take it seriously – it should rather be no thicker than 5 mm. It should reside permanently on the desk of every NSB manager, and guide their every-day decisions. business plans are therefore very useful documents to provide alignment to achieve agreed goals and to give direction in the drive for financial sustainability of

the NSB, irrespective of its organizational make-up.

## 6.2 Budgeting

A budget is a written plan expressed in quantitative terms. The budget is a blueprint for future operations within a selected period of time: a month, year or longer. Detailed budgets are prepared for each of the divisions of the NSB prior to being combined into a master budget to reveal the coordinated business plan for the budget period. The obvious question is: Where shall a start be made? Normally, it will be necessary to prepare a budget based on an honest attempt to forecast and evaluate future activities for the forthcoming budget period. Past results may be used as a guide, but these have to be amended in the light of anticipated conditions in the budget period. It may be tempting to use a budgeting process consisting of automatically increasing the previous year's figures across the board by a fixed percentage, e.g. 10% or 15%, but this may not be the best approach.

Elements of budgeting that have to be considered at the divisional level include sales estimates, production limitations, labour requirements, material and purchasing requirements,

equipment, and divisional and NSB overheads. The divisional budgets are then utilised to compile the master budget for the NSB as a whole. The master budget is therefore the grand plan or co-ordinated blueprint of operations for the forthcoming budget period. This is the most critical stage of budgeting because, if the master budget reveals a forecast of an unsatisfactory state of affairs, it may be necessary to start all over again on different premises in an attempt to improve the situation. This is not just playing with numbers, but the development of a map appropriate to the journey into the next budget period – a journey that may take the NSB into new territory. Selecting the most advantageous route is critical to maximise opportunities and minimize threats to the NSB.

### 6.3 Effective budgetary control

This is the area in which financial planning and control of operations is brought together. Budgetary control takes the detailed annual divisional budgets and compares them with actual results at frequent intervals. In an NSB, there is typically on a monthly basis throughout the budget period. Similarly, the master

budget is frequently compared with the actual income and expenditure account, balance sheet and cash flow position. The value of budgetary control lies in the fact that it does not stop at a mere comparison but looks into the causes of differences between budget and actual performance. Thus, managerial action is directed towards divergences from plan and action can be taken to correct the situation whilst there is still time. The process should act as a discipline, stimulating divisional efficiency and more effective utilization of resources. It should not be employed as the whipping block for re-criminatory post-mortems, nor should managers be allowed to abdicate their responsibilities by blaming the “system.”

An effective budgetary control should prompt management action by identifying the cause of each variation from budget. A vital principle which must be followed is that no-one should be held responsible for something over which they have no primary control. Towards this end, the following points should be noted.

- a) A budget should not be imposed from above. It should be prepared in conjunction with the person on whom control is to be

exercised. This person should agree to the budget before it is finalised.

- b) Everything is controllable by someone. The budget-centre structure must ensure that no item is included in any budget unless it is primarily within the control of the person responsible for that specific budget centre.
- c) Control must recognize changing conditions. A budget is normally prepared in the light of a given volume of service delivery. Should the actual volume differ from the budgeted volume, it is unrealistic to push the comparison between actual volumes and the given volumes too far. If there is a radical change in external conditions for instance, it may be necessary to revise the budget.

No one can control the past, only the future. Towards this end, control information should be forward looking. For example, there is more merit in presenting information which compares the original budget with the now anticipated outcome for the year rather than in comparing the expired portion of the budget to date with the historical outcome to date.

In conclusion, it should be stressed that financial information is not the only information a manager requires in order to plan, control, or reach a reasoned decision. Nor is it suggested that management accounting information can replace a manager's exercise of initiative and judgement. However, the possession of pertinent management accounting information should facilitate the exercise of sound judgment.





## Conclusion

The journey through this publication has taken us from the identification of the possible business opportunities for a NSB in a developing economy, taking into consideration the nature of the international development, best practices for a national quality infrastructure and the challenges of a developing economy in the world markets. It has looked at possible sources of income, set out principles for the financing of standards development, and considered the financial requirements for the establishment of conformity assessment services, all of which are guided by principles towards ensuring the financial sustainability of the NSB.

The journey also visited the principles of managing costs and setting prices. Financial and management accounting practices were presented as very important tools in the hands of NSB managers. Budgeting and its concomitant budgeting control also received appropriate attention. All of these may sound a bit foreign to NSB personnel that are in the first instance mostly technically orientated. The reality, however, is that without a proper understanding of basic financial principles, NSBs may just

find themselves in financial straits and their long-term existence threatened.

The final recommendation is therefore to give careful attention to the holistic picture. It is not just about technology, nor is it just about finances. It is about a healthy synergy between the two which will enhance the long-term financial sustainability of the NSB, suitably embedded in the development plans of the government, in order to uplift the competitiveness and sustainable development of the country.



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