

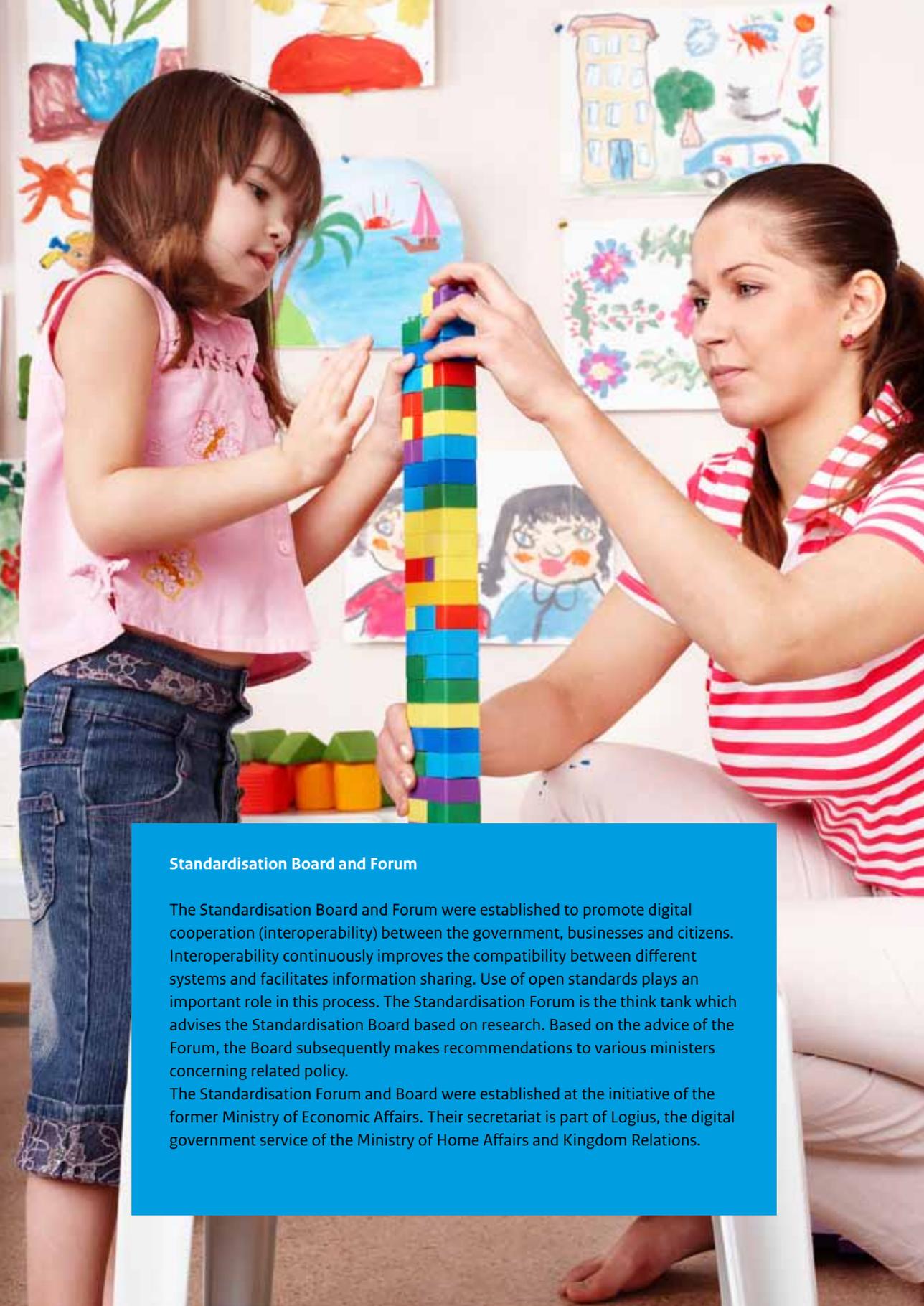


A guide for government organisations

Governance of Open Standards

The Standardisation Forum





Standardisation Board and Forum

The Standardisation Board and Forum were established to promote digital cooperation (interoperability) between the government, businesses and citizens. Interoperability continuously improves the compatibility between different systems and facilitates information sharing. Use of open standards plays an important role in this process. The Standardisation Forum is the think tank which advises the Standardisation Board based on research. Based on the advice of the Forum, the Board subsequently makes recommendations to various ministers concerning related policy.

The Standardisation Forum and Board were established at the initiative of the former Ministry of Economic Affairs. Their secretariat is part of Logius, the digital government service of the Ministry of Home Affairs and Kingdom Relations.

Management summary

This guide describes the tools a CIO or information manager can employ to help their organisation use open standards.

Use of open standards increases the ability of governments, business and citizens to cooperate and exchange information electronically. It also reduces their dependence on suppliers. For this reason, the government has – amongst other things via the Standardisation Forum and the Netherlands Open in Connection programme – made the use of open standards a norm.

However, the adoption of open standards has proved less easy than expected. This is amongst other things due to the fact that within organisations there are many existing systems and ongoing developments for which closed standards are used. In addition to the encouragement from outside parties, it is therefore important for organisations to start adopting open standards themselves, and implementing and using them in their specific systems and processes. Organisations need to be able to *govern the use of open standards* independently, which is the purpose of this guide.

Adopting open standards is part of ‘getting a grip on ICT’; it goes beyond the financial and process aspects. The quality also needs to be in order. Use of open standards is a vital quality factor, and therefore needs to be a specific objective. This guide describes the tools a CIO or information manager can use for this purpose.

The underlying principle is that the adoption of open standards must be embedded in the different IT governance processes, namely compliance management, IT policy, architecture management, portfolio management and procurement. Every organisation whose activities encompass ICT will have these processes in place to varying degrees. These are therefore the starting points for specifically governing the use of open standards.

Some examples of the tools to be used are listed below:

- In *compliance management*: periodic checking of lists of mandatory open standards (the government’s ‘Comply or Explain’ list or sectoral lists)
- In *IT policy*: inclusion of open standards as a policy principle for the whole organisation
- In *architecture management*: definition of the standards which fit in the target architecture
- In *portfolio management*: inclusion of open standards in a project start architecture and specific assessment of ongoing and new projects in terms of the adoption of open standards (e.g. in a Dashboard or Gateway Review)
- In *procurement*: inclusion of open standards in model specification documents and the selection of the supplier.

In the guide, the tools are listed in the order plan-do-check-act. This allows them to be used in a process of continuous improvement, which, in turn, ensures a continuous increase in the adoption of open standards. For organisations where IT governance is still in development, this makes a growth model possible.



Preface

The government wants and needs to get a grip on ICT. Support for business processes needs to improve, there needs to be greater cohesion, and projects need to be kept under control more effectively. This is important in order to ensure continuous improvement of the government's service and save on costs. Furthermore, this is what citizens and businesses expect. As a result, we have recently introduced various methods in the government which facilitate improved control of ICT. For instance, we now use the architecture more extensively and the project portfolio is more clearly defined. Ministries have appointed CIOs to supervise these processes. Open standards tie in with these developments, as they are vital in increasing the independence of suppliers and improving the cooperation between government organisations. They are also a precondition for the electronic exchange of information between the government, citizens and businesses. I am convinced that, in the long term, the use of open standards will therefore help reduce costs and enhance innovation and efficiency. Working towards openness is one of the quality criteria which, as far as I am concerned, should be incorporated into IT governance. After all, time and money are not the only concerns; the quality also needs to be in order. Use of open standards is an important quality factor. This guide describes the tools that can be used for this purpose, ranging from the inclusion of the open standards in a project start architecture to their enforced use via procurement processes. Use of such tools aids organisations in the adoption of open standards. Open standards are vital for cooperation and the exchange of information with citizens and businesses. I am therefore very pleased to present this guide.



Maarten Hillenaar, CIO for the Dutch Central Government

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A grid of many small white boxes, each with a small blue square on its front. The boxes are arranged in a regular pattern, with a few boxes highlighted in a darker blue color. The background is a dark green color.

Adoption of standards in an
organisation is different from
adoption of standards in a
network

1 Introduction

“Open standards – ‘Comply or Explain’ – The Netherlands Open in Connection.... How can my organisation start properly incorporating them into their daily considerations concerning ICT?”

1.1 Background

Based on the Netherlands Open in Connection action plan [1], various initiatives have been started across the government to promote the use of open standards:

- A list of mandatory open standards has been compiled for government organisations under the motto of ‘Comply or Explain’. These standards are selected by means of an open procedure.
- A list of common open standards has been compiled. This list provides a good overview of open standards which are widely accepted and used.
- Adoption of open standards is made easy by means of practical examples and specification templates.
- A programme agency has been established to promote the use of open standards.

Despite these initiatives, in practice promoting the use of open standards in organisations often proves difficult.

1.2 Objective of this guide

This booklet is a guide for CIOs, policy-makers and information managers. We developed it to assist you in applying open standards policy to, and embedding it in, the activities of your organisation. Its objective is therefore to promote the adoption of open standards.

The tools from this booklet will enable you to incorporate the choices made concerning open standards into the existing processes for the renewal and improvement of ICT. How this is achieved will vary between government organisations.

1.3 Scope

Efforts are being made in many areas to improve the government’s ICT and information supply. This booklet aims to support these processes. Our points of departure in compiling this booklet were as follows:

- Current open standards policy, i.e. that open standards are the norm
- The IT governance programmes currently in place in government organisations.

There are two perspectives concerning the adoption of open standards:

- The *network perspective*, which focusses on a network of cooperating organisations to establish which resources could be employed to achieve the adoption of open standards in that network
- The *individual organisation perspective*, which focusses on how the individual organisation could employ open standards to facilitate the exchange of information with internal and external partners.

This booklet is written from the individual organisation perspective. Consequently, we will primarily examine measures you can take independently.

1.4 Realisation

This guide is the first result of the Standardisation Forum's Adoption Project. The Forum advises the government on standardisation and interoperability.

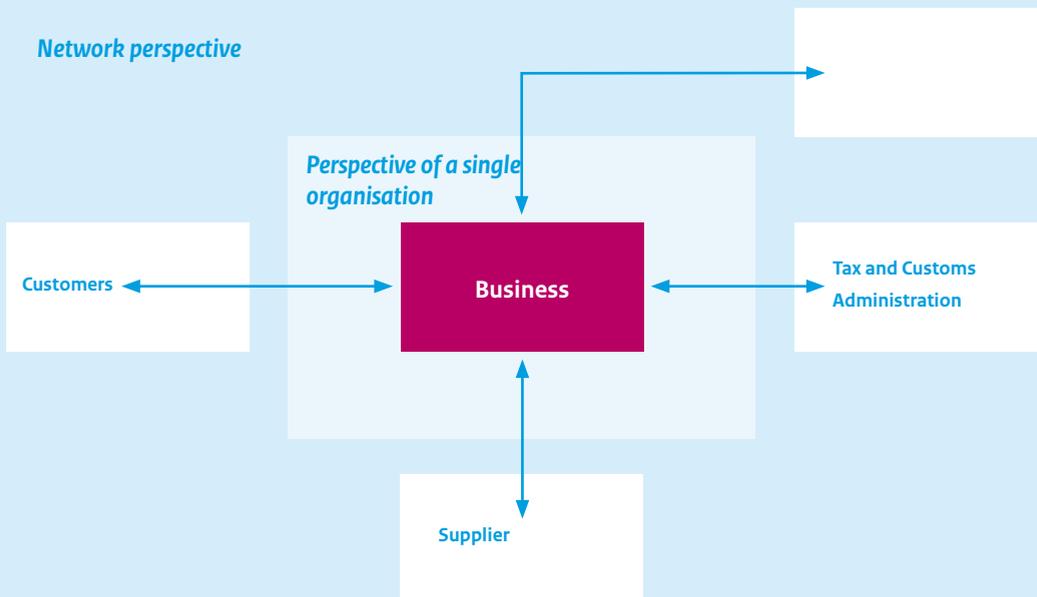


Figure 1: Information exchange from the network and individual organisation perspective

Standards in a network

A network is often subject to problems of a different nature, e.g. a business case whose costs and benefits are disproportionately distributed between parties, adoption and use of a standard for multiple parties, or the process for jointly arriving at a standard.

The Standardisation Forum, The Netherlands Open in Connection and Kennisnet have conducted research on this subject in cooperation with TNO and Novay. Additional information on this research is available at www.integrateproject.nl.

The objective of the Adoption Project is a self-maintaining process of increasing adoption, implementation and use of open standards.

This booklet was compiled based on discussions with various CIOs and policy-makers and a variety of best practices and points of reference. Generic frameworks were also examined. These interviews and frameworks were used to define specific tools for the adoption of open standards. The tools concerned have been brought together in this guide.

1.5 Reading guide

This booklet examines the role open standards could fulfil in your organisation, and explains how, through policy and specific actions, you can promote their adoption

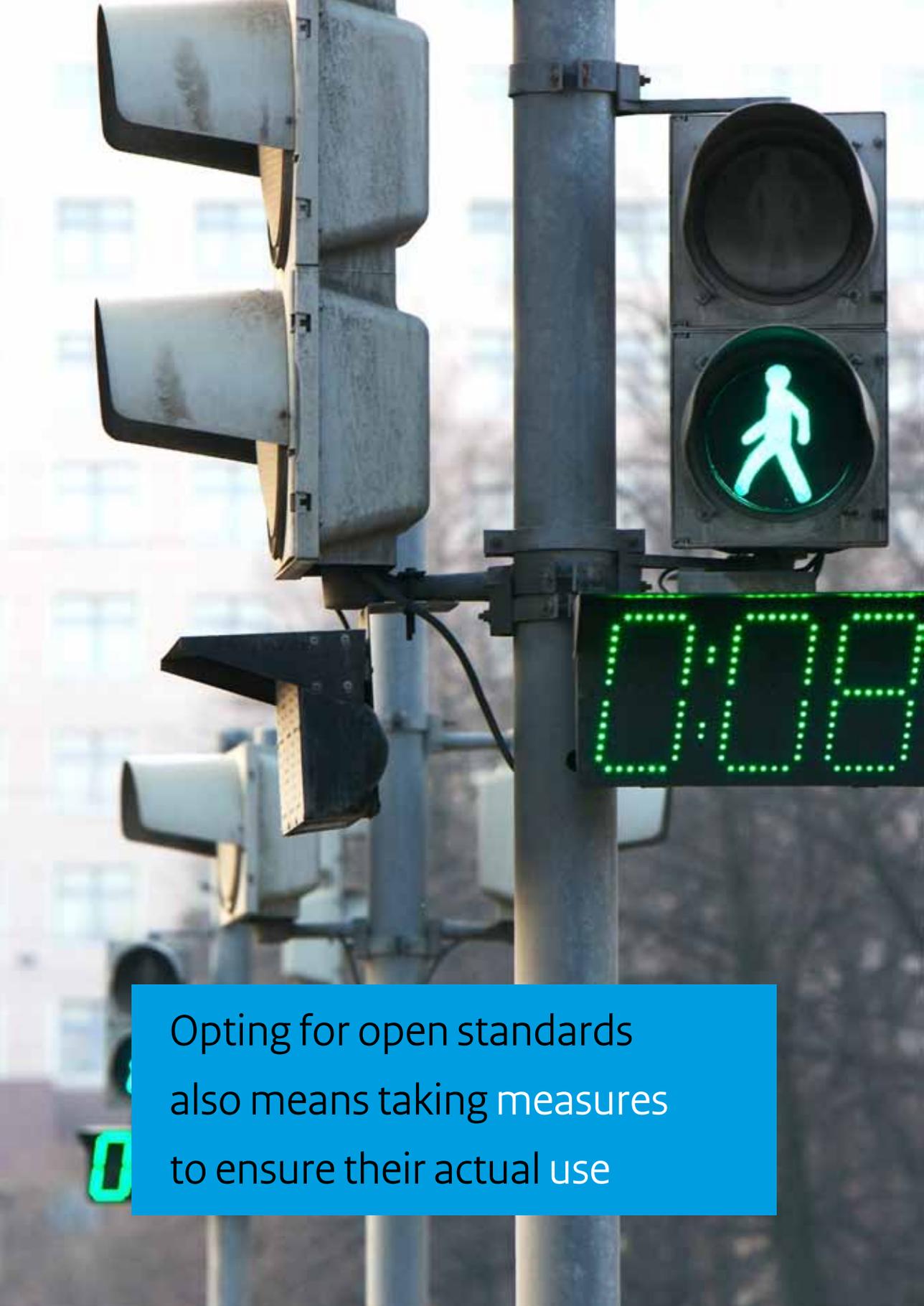
- Chapter 2 examines more closely the necessity of open standards
- Chapter 3 explains how you can promote open standards by incorporating them into the IT governance processes
- Chapter 4 contains a stepwise plan which shows you how to start, and gradually expand, the adoption process
- Finally, chapter 5 specifies a number of actions and tools you can employ as part of the stepwise plan.

Tools and best practices for information and programme managers

There is also an annex to this booklet, which discusses in more detail the specific tools available for accelerating the adoption of open standards.

This annex can be used by information and programme managers to select the right tools,

and is published as a separate document which is also available at www.forumstandaardisatie.nl/sturenop-openstandaarden.



Opting for open standards
also means taking measures
to ensure their actual use

2 Why open standards?

2.1 Introduction

Open standards are the subject of much discussion, but:

- why are they important?
- what constitutes an 'open' standard?
- how can the transition be made to use in practice?

This chapter discusses these questions..

2.2 The importance of standards

For organisations, having the means to exchange information efficiently with other organisations is becoming increasingly important.

We refer to this as *interoperability*: the ability of organisations to cooperate, in particular by means of electronic information interchange.

In order for interoperability to be achieved, agreements are needed: agreements concerning the content of the exchanged information, its meaning and the techniques to be used. In some cases these are individual agreements between two organisations, but more often an agreement will apply to a whole industry or a specific general application. In the latter case, the agreement is a standard.

A standard:

- is a document, electronic or otherwise, which sets out the specifications or criteria for a product, service or method
- is established in a business, consortium or via a recognised standardisation organisation such as ISO or NEN
- is generally a process whereby the standard is developed and managed.

In the context of ICT, standards are extremely important in connecting different organisations and their systems with each other:

- When all the parties concerned work according to the same standard, this has an important effect on the network, as using a single standard enables communication with a much larger number of parties. As a result, the overall value of the network increases significantly.
- This leads to economies of scale for developers and new applications for users. By using standards, the developers have direct access to a large number of users, which, in turn, reduces the costs for users.

The internet is naturally the most familiar example. Due to the standards which exist for web pages and information interchange via the web (Internet Protocol), hundreds of millions of users worldwide are able to communicate and exchange information with one another without any barriers.

2.3 What are open standards?

The use of standards can also have negative consequences. For instance, if a party uses a supplier-specific standard, they run the risk of becoming dependent on that supplier. This may subsequently make switching to another supplier difficult, or limit the choice of parties for information interchange. Standards of this kind are also referred to as ‘closed standards’.

These problems do not affect open standards, for which the European Commission has four criteria [2]:

- The standard must be adopted and maintained by a not-for-profit organisation. Furthermore, it must be continuously developed on the basis of open decision-making available to all interested parties (consensus or majority decision, etc.).
- The standard must be published and the standard specification document must be

available free of charge or at a nominal fee.

Copying, distribution and use of the specifications must be permitted free of charge or at a nominal fee to all parties.

- The intellectual property rights to, and any patents on, the standards or parts thereof, must be granted irrevocably and free of charge.
- There must be no restrictions with respect to reuse of the standard.

An open standard can – in short – be used by anyone, without restrictions. Users are also free to propose changes to the standard, with the guarantee that their suggestions will be handled in a transparent manner.

Consequently, open standards have a number of inherent benefits:

- There are no restrictions on the standards’ implementation in new systems, as the specifications are freely available and may be used without restriction. In the case of a closed standard, the user is dependent on the owner of the standard when it comes to making the specifications available and permitting reuse in systems belonging to third parties.

- Although on occasion additional initial implementation costs need to be incurred (for instance, as a result of a learning curve with respect to existing closed standards), the usage costs for an open standard are low, as there are no royalties or licence fees.
- There is more room for innovation and renewal, as every party involved can propose changes to the standard. These proposed changes are examined in a transparent manner and, after approval, are made available to everyone.
- Because there are less barriers concerning use of the standard, it can be rolled out more easily in a large number of organisations. This creates a stronger network between organisations who are able to exchange information.

As a result, a level playing field is created for everyone who wants to use the standard, preventing any undesired dependency on suppliers, and promoting innovation.

The government is therefore actively trying to ensure the use of *open* standards. Open standards are an important quality factor for ICT projects.

For the government, open standards are crucial in facilitating transparent cooperation by means of ICT. This applies both to cooperation within the government and between the government, citizens and businesses. On the one hand, this means that the government would prefer to use industry/market-developed open standards, whilst on the other, it has a responsibility to make its own government-specific standards openly available.

The fourth Balkenende cabinet's Netherlands Open in Connection action plan stipulates that open standards must become the norm in the government. This requirement encompasses a 'Comply or Explain' regime [3]. When a government organisation wants to procure an ICT system, a standard from the 'Comply or Explain' list of open standards must be chosen if the list contains a standard for the application concerned. Use of a different standard must be explained in the annual report. The selection and testing of standards for the list are performed by the Standardisation Forum and Board in the respective capacities of advisory and decision-making body [4].

'Comply or Explain'

The 'Comply or Explain' regime was set up in order to ensure broad use of specific open standards in the government and stems from the Netherlands Open in Connection action plan. The 'Comply or Explain' list of open standards is determined by the Standardisation Board.

In order to be eligible for inclusion in the list, standards must be registered and tested by the Standardisation Forum. This registration can be performed by any stakeholder, after which the standard is assessed by an expert. The assessment establishes whether the standard is sufficiently open and sufficiently suitable for the intended area of application (e.g. in relation to other open standards). In addition, the impact the standard would have on government organisations if it were to be implemented is determined. Finally, the standard's potential for inclusion in the list is assessed. If a standard is included in the list, it must help enhance supplier independence and interoperability. In a public consultation, all those involved are subsequently able to respond concerning the results of the expert assessment. Based on this assessment, the consultation and

the recommendation made by the Standardisation Forum in response, the Standardisation Board decides whether the standard will be included in the list.

Every standard is given a defined functional scope and organisational scope. For instance, for a hypothetical standard, this could be 'address data interchange' in 'the national government and municipalities'. The adoption of this standard is then enforced through the purchase of ICT resources such as systems, applications and services. If a government organisation is within the organisational scope (in the example, a department) and the application is within the functional scope (in the example, the administration of an address database), the purchased ICT resources must comply with the standard.

The national government's 'Comply or Explain' regime is set out in the government instruction of October 2008 (<https://zoek.officielebekendmakingen.nl/stcrt2008837.html>). Separate agreements have also been made with the local governments.

2.4 Working towards actual use of open standards

Although open standards are the norm and are already used extensively in practice, the Standardisation Board and Forum believe more widespread use is necessary. The standards on the 'Comply or Explain' list and the principle of 'open standards as a norm' could be embedded more effectively in organisations.

However, there are many practical issues that could hinder the transition to open standards. Ensuring the use of open standards in practice is easier said than done, and requires more than a choice of policy alone. The consideration of such a step will give rise to many questions:

- In many cases, closed or other standards are already in use for an application; when and how should the transition be made?
- There are sometimes multiple open standards for a particular application; which should we choose?
- On occasion, a technology or other supplier will propose a standard; is the adoption of such a standard not likely to result in too great a dependence on the supplier?
- What should we do if there is no open standard available for a certain application? In such cases, is it advisable to personally develop a new open standard?
- Which open standards need to be applied in a new project which is about to be started?
- How should open ICT standards be incorporated into sales processes and model specification documents?

The process for ensuring the use of open standards in practice can be divided into a number of phases. First of all, people must be convinced (via organisational objectives and/or government policy) of the importance of embracing open standards. The three phases are as follows:

- Adoption: This phase involves investigation, research, consideration and decision-making for the selection of one or more open standards for use. By the end of this phase, the organisation will have fully embedded open standards in its policy and procedures.
- Implementation: This phase involves the implementation of the decision regarding adoption, and briefing of the users.
- Use: This is the practical utilisation of the standard by the organisation, for instance through actual information interchange with partners in the same chain.

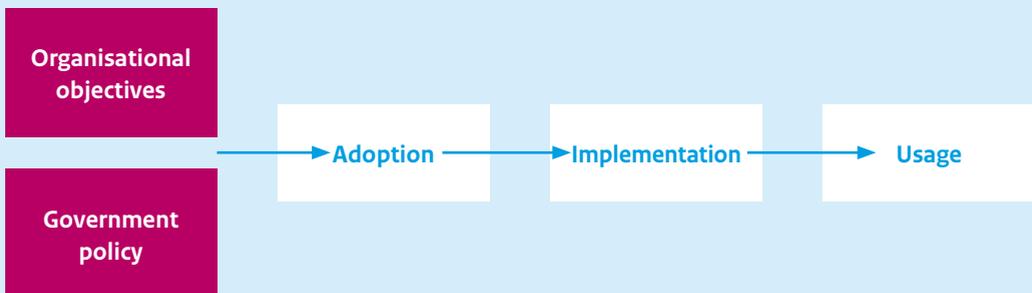


Figure 2: From adoption to use

This booklet is a guide for taking the step towards actual implementation and use of open standards.

2.5 In summary

- Standards are vital in ensuring interoperability: the ability of organisations and their systems to cooperate, in particular by means of electronic information interchange
- When it comes to interoperability, the government chooses open standards. These standards limit dependence on suppliers and support innovation and renewal.
- The current challenge for government organisations is taking the step towards the adoption and implementation of open standards.

A young child with dark hair, wearing a green and white striped polo shirt and blue sandals, stands on a grassy area. The child is holding a black remote control device. In the foreground, a red toy car is on the ground. The background shows a grassy area with a black metal fence and a bicycle parked behind it.

Governance is a stepwise process of working towards more efficient adoption, implementation and use of open standards

3 Governing open standards via IT governance

3.1 Introduction

The government's policy concerning open standards is in place. Meanwhile, the benefits of its use are already evident in actual practice, namely enhanced interoperability and reduced dependence on suppliers. Many government organisations are therefore keen to adopt open standards.

Adopting open standards means embedding them in the selection and decision-making processes for ICT. In concrete terms, this means that the IT governance processes take into account the importance of open standards and need to contain mechanisms which promote their adoption. IT governance processes give ICT activities and projects direction. If these processes promote the application of open standards, their implementation and actual use in those activities and projects will increase. Embedding open standards in IT governance processes is therefore crucial.

Consequently, this chapter discusses the relationship between IT governance and open standards by means of the following questions:

- How do we interpret IT governance?
- What does IT governance involve and how do open standards tie in with it?
- How can continuous improvement of the process of adopting open standards be achieved?

3.2 What is IT governance?

IT governance is the leadership and the organisational structures and processes necessary in order to develop ICT which is in line with the needs and objectives of the organisations. [5]

Consequently, IT governance concerns a variety of aspects:

- The strategic view concerning the contribution of ICT to organisational objectives.
- The general orientation and structure of the policy with regard to ICT.
- Management of the provision of information.
- Monitoring and governance of ICT projects.

If open standards can be embedded in these aspects, IT governance will effectively support the enhancement of the adoption process (and therefore also the implementation and use of open standards) in organisations.

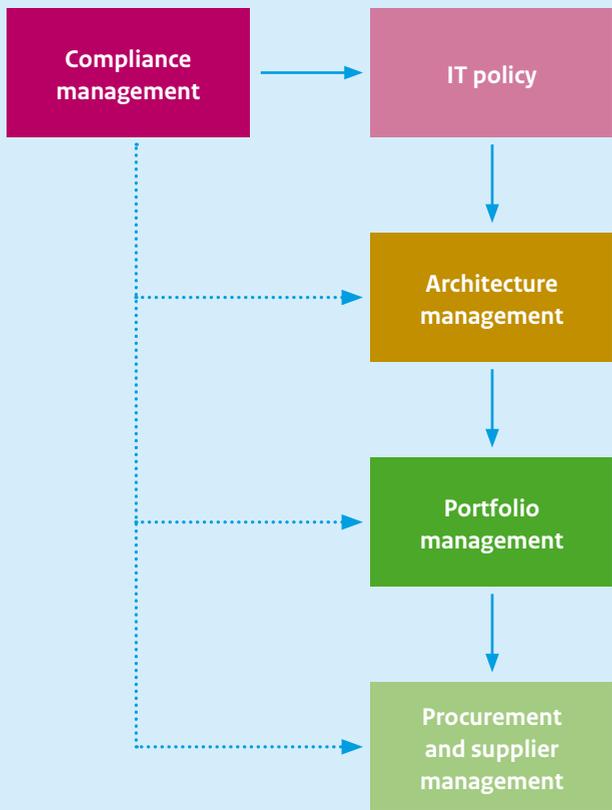


Figure 3: Governance processes [6]

3.3 Governance processes

Various strongly interrelated processes can be distinguished within IT governance. The maturity of some processes will vary depending on the type of organisation and the maturity of the IT governance practices. The point of departure for this guide is the following division of activities into governance processes:

3.3.1 Compliance management

Compliance management involves the conversion of external requirements into internal guidelines, followed by assessment to establish whether in actual practice the organisation complies with the guidelines.

An example of these external requirements is the Personal Data Protection Act:

- The Personal Data Protection Act stipulates that for the outsourcing of personal data management, a processor's agreement must be concluded with the external party.
- Compliance management highlights this provision and ensures that people remain aware of it; in the organisation, measures must be taken to either prevent personal data from being outsourced or ensure that when such data is outsourced, a processor's agreement is concluded.
- However, this may also mean that periodic checks are required to prevent sensitive personal data from being outsourced to external parties.

In this conceptual framework for IT governance, compliance management converts external requirements top-down through the organisation: statutory and other external requirements are converted into IT and other policy, IT and other policy into architecture, architecture into project portfolios, and project portfolios into purchase. In parallel, there are sometimes items which are directly applicable to specific governance processes. .

Compliance management for open standards involves periodic checking of requirements relating to open standards, such as the 'Comply or Explain' list of open standards and standards

in legislation and regulations. Assessments are then performed to establish how these requirements can and must be fulfilled.

3.3.2 IT policy

The IT policy includes the following general policy principles for IT.

The details of these principles will vary per organisation, but overall they pertain to matters such as:

- the strategic orientation of ICT in relation to operations (e.g. ‘By 2020 we need to be able to conduct 80% of our customer contact over the internet’).
- principles concerning information sharing (e.g. ‘Our data is publicly available’ or, conversely, ‘Our information is crucial for our organisation and must be kept strictly secure’).
- principles concerning utilised technology (e.g. ‘We utilise shared service centres owned by our parent company’ or ‘We use only standard products’).
- policy concerning suppliers (e.g. ‘We design our own software, but outsource building and administration’).
- IT project funding.

In an organisation, IT policy is often coupled with a multi-year policy which visibly incorporates a process cycle of planning, implementation, evaluation and adjustment.

Open standards can be embedded through inclusion in the general policy principles of the IT policy.

However, it must be noted that policy in itself is a relatively weak instrument; the fact that policy has been defined does not necessarily mean that it will be implemented in the same manner. Furthermore, the policy must ultimately lead to specific actions and projects. This can be achieved by means of the underlying governance processes.

3.3.3 Architecture management

Architecture management converts the IT policy into specific structural and organisational principles.

The strategy for information management and systems and standards which are to be used is determined by means of architecture.

This ensures that systems are cohesive in terms of content and functionality. Architecture management involves capturing both the current and future situation in models. The first consists of the collection of existing systems and applications and facilitates analyses to identify potential bottlenecks and points for improvement, whilst the second constitutes a target scenario incorporating future developments.

In an architecture, specific decisions are made concerning the open standards to be used in an organisation.

3.3.4 Portfolio management

Portfolio management converts models and principles (architecture) into specific projects and ensures control of the project portfolio.

These can be projects defined by the business, which serve a specific business purpose, but can also be projects which create a more generic infrastructure for future developments.

This governance process includes the registration and management of the project portfolio, which includes prioritisation and adjustment. Projects are periodically checked in terms of progress and quality, and an emphasis is placed on ensuring cohesive content. When a project is initiated, specific checks are performed to establish whether the project fits in the overall project portfolio and fulfils the imposed IT policy and architecture requirements. This assessment is often in the form of a project contract and/or project start architecture (PSA).

Managing the product portfolio in this manner – i.e. by group and project – ensures effective use of resources for ICT.

The use of open standards can be promoted through specific prioritisation of certain projects by means of prioritisation of replacement

investments, allocation of budgets for this purpose, and inclusion of these measures in the quality requirements for projects.

3.3.5 Procurement and supplier management

The final governance process is procurement, which involves the actual acquisition of ICT resources and support, as well as the central control of suppliers.

Procurement involves hardware and software, both standard and customised, and the insourcing of consultancy and expertise. When it comes to the full outsourcing of activities, there is a strong relation to portfolio management.

The governance process of procurement also focusses on the supplier market, the strategic position of the organisation in relation to suppliers, the operational side of procurement (specification documents, tenders, etc.) and the assessment of suppliers. Requirements for suppliers are highly specified. In this way, the governance process ensures continuously improving cooperation with suppliers as partners in the value chain.

In the process, products and suppliers utilising open standards can be given priority. Furthermore, in a number of cases, use of open standards can be specified as a requirement.

3.4 Process of continuous improvement

In the previous section, we described the various governance processes and showed how open standards can be given attention in each process. Each governance process consists of a variety of distinguishable process steps. These processes vary for each field, but are in almost all cases – if well structured – cyclical. This cyclical nature of these processes is geared towards ensuring continuous improvement, and can be considered a contextual specification of the Deming cycle [7]:

The Deming cycle consists of four steps:

1 Plan

Define new objectives, examine the current activities, and propose a plan of improvement for the achievement of these objectives.

2 Do

Execute the plan.

3 Check

Compare the new situation to the old one and establish whether the objectives are being achieved.

4 Act

Update the plan. making adjustments based on the findings.

The full cycle should be completed in every IT governance process. For the adoption of open standards, each process step should subsequently also examine the role of open standards.

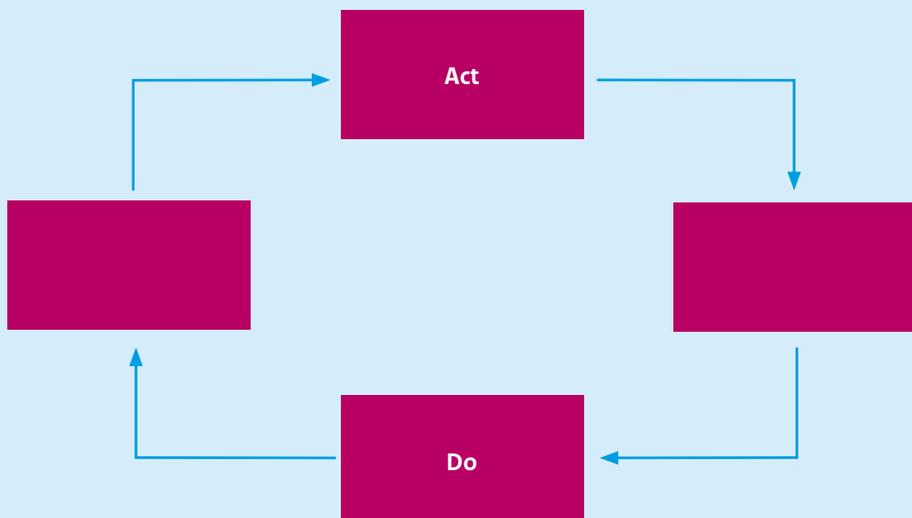


Figure 4: Diagram of Deming cycle

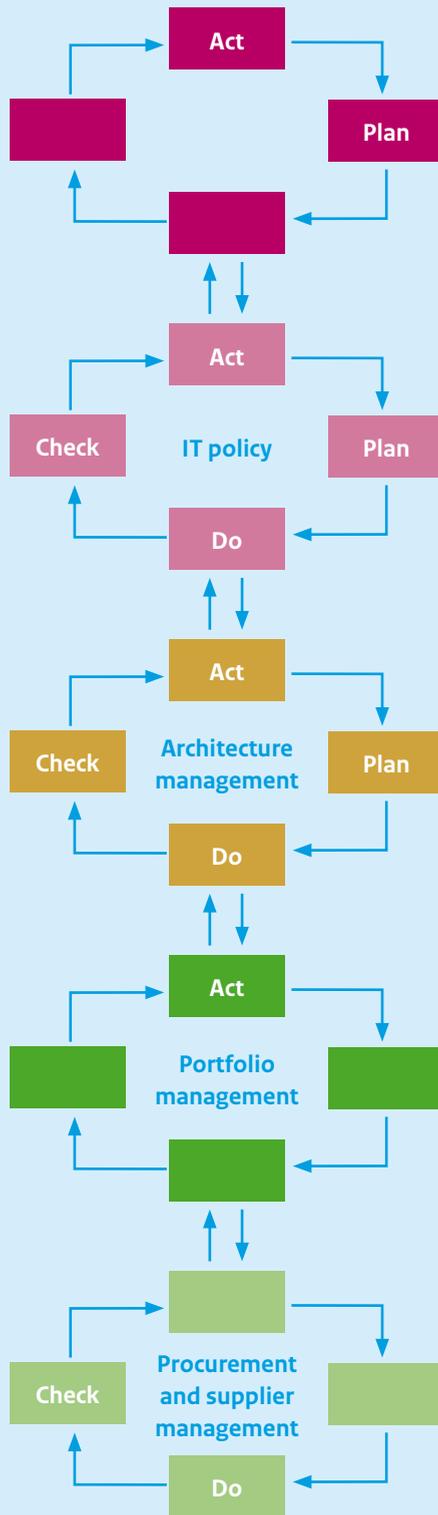


Figure 5: Governance processes and their interrelatedness due to Plan-Do-Check-Act

3.5 Interrelatedness of the areas of governance

The Plan-Do-Check-Act process steps create cohesion between the various governance processes. This is shown in Figure 5. The 'Do' step (execute the plan) is often connected with the 'Act' step (update the plan) of the underlying governance process.

For instance, if in the architecture management process the decision is made to set up the ICT facilities in a certain manner, measures must be taken in portfolio management to achieve this.

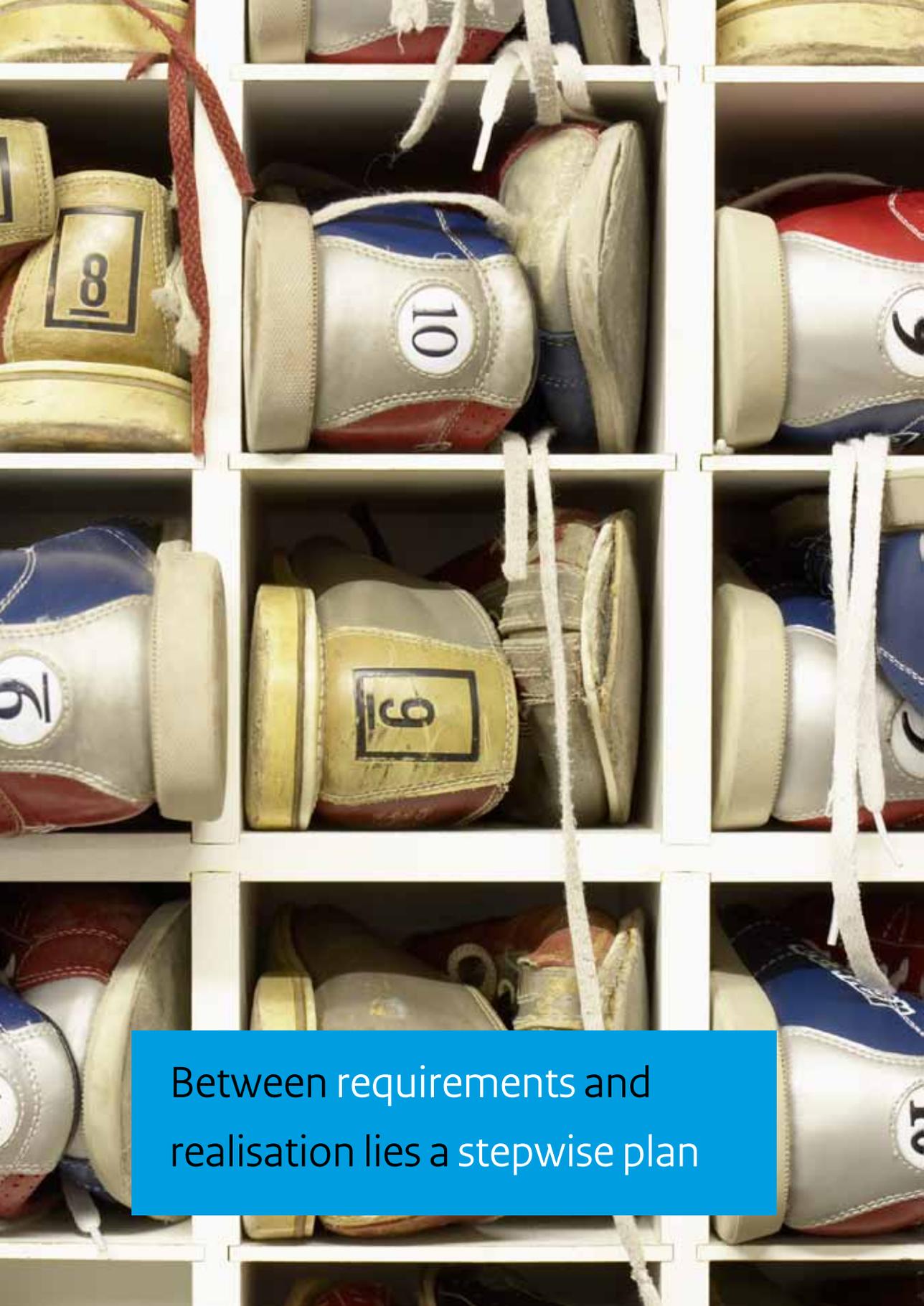
In the light of the relation between governance processes, it is desirable for the tools for the adoption of the standards to enjoy the same cohesiveness.

Specific tools are required for each of the process steps: PlanDoCheckAct. These tools therefore need to correspond with one another as regards content and processes.

Chapter 5 discusses which governance tools can be used when to promote the use of open standards.

3.6 In summary

- In IT governance we distinguish a variety of processes: compliance management, IT policy, architecture management, portfolio management and procurement/supplier management.
- These processes are cyclical, and geared towards to ensuring continuous improvement. As a result, they are also interrelated, which demands an integrated set of tools.



Between requirements and
realisation lies a stepwise plan

4 Stepwise plan

4.1 Introduction

The previous chapters outline the importance of open standards and establishes the relationship between open standards and IT governance. We assume that you subscribe to the importance of open standards. The question is how to approach their adoption in actual practice.

We divide this process into four steps:

- 1 Establish which governance processes have already been set up.
- 2 Select the most mature governance process and implement tools for the adoption of open standards according to the Plan-Do-Check-Act cycle. If possible, choose a first case.
- 3 Adjust the overlying and underlying governance processes based on the results.
- 4 Measure the results and optimise the process.

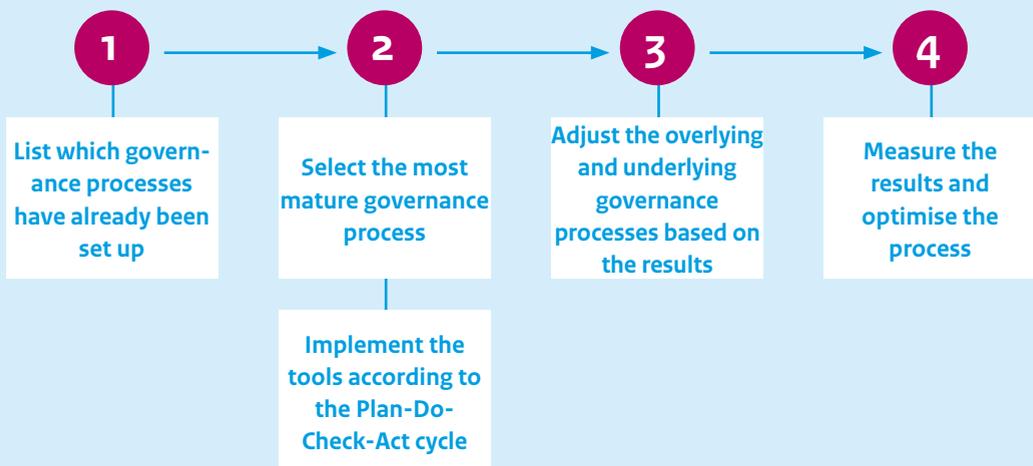


Figure 6: Stepwise plan

4.2 Step 1: Establish which governance processes have already been set up

This current IT governance situation is the point of departure for this guide.

First of all, you need to establish which governance processes have already been set up and to what extent.

In an organisation, IT governance is often arranged centrally, for instance by a Chief Information Officer (CIO). This is a solid starting situation, as there is knowledge of the structure of the various governance processes at the centre of the organisation. However, these processes are sometimes divided between numerous members of staff and/or different departments. As a result, they do not come under the responsibility of the same controlling party. Consequently, it first needs to be clearly established which governance processes have been set up and to which members of staff and/or departments they have been assigned.

It is advisable to make this first step clearly defined: which governance processes have been set up and who is responsible/accountable for which process?

An analysis should then be performed on each governance process to determine to what extent the PlanDoCheckAct process steps have been put into practice. This provides a good impression of the maturity of the governance process.

In onderstaande tabel is deze stap uitgevoerd voor een fictieve organisatie:

Table 1: Example of inventory of governance processes.

Process	Present	Responsible	Plan	Do	Check	Act
Compliance management	Yes	Legal Affairs Department Manager	x	x	-	-
IT policy	Yes	IT Director	x	x	-	-
Architectuur management	No	-	-	-	-	-
Portfolio management	No	-	-	-	-	-
Procurement/supplier management	Yes	Procurement Department Manager	x	x	x	x

The first step provides an outline of the governance processes which are currently set up. These processes constitute the point of departure for promoting open standards in the short term.

In the example, the procurement/supplier management process seems to be the most developed. Consequently, this is the logical government process to start with because the necessary processes have already been set up. This will make it easier to focus on open standards within these processes.

4.3 Step 2: Implement tools in the most mature governance process

Select the most mature governance process and implement the relevant tools from the annex to this guide in that process.

Now that it is clear which governance process is the most developed, tools can be used in this process to promote the adoption of open standards. Chapter 5 of this guide specifies tools and best practices for each governance process and process step (Plan-Do-Check-Act).

Furthermore, the exact implementation strategy of each organisation can change. Depending on the situation, the sequence ‘plan → do → check → act’ of ‘check → act → plan → do’ can be chosen. In the majority of cases, the first sequence is the obvious choice. The second is more logical in situations where an existing policy has been in place for some time. At the

Table 2: Example of tool implementation

Process	Plan	Do	Check	Act
Compliance management	<p>Make an inventory of the mandatory standards.</p> <p>→ Have the first investigation performed by the information manager.</p>	(implementation of mandatory standards)	<p>As part of the annual audit, have checks performed to establish whether mandatory standards are used in actual practice.</p> <p>→ Incorporation into agreements with internal audit team.</p>	(adjustment of norms and guidelines, e.g. in architecture)

'Check' stage, the policy is usually assessed in terms of its suitability for the adoption of open standards, which can lead to adjustment of the policy.

Option: Starting with a first case

Depending on the specific situation, it may be advisable to select a case to support this implementation. This is a sound option particularly in cases where IT governance is still in the early stages of development. However, if such a case is to be used, it must be one which involves the whole of the organisation, e.g. implementation of a new desktop environment, support systems for electronic services and process support. The governance processes will then pertain to that one, initial project. In order for the tools to work properly, the project must be of sufficient size. e.g. management of a subproject portfolio (portfolio management); this is only worthwhile if the project can be divided up into multiple useful subprojects. Based on the chosen case, the governance process can then be run through with a clear focus, and specific tools can be selected. The experiences (positive and negative) can be utilised in the next step for a broader rollout.

4.4 Step 3: Adjust the overlying and underlying governance processes based on the result

The previous chapter specifies the relationships between the various governance processes. In many cases, the 'Do' step in the overlying process affects the 'Act' step in the process and vice versa. Consequently, it is advisable to make the transition to other governance processes.

After the tools have been implemented in one governance process, adjust the overlying or underlying governance processes based on the results.

Example:

- You have started the process architecture management process and incorporated a list of open standards into your architecture. This may result in portfolio management requirements, and cause you to replace your closed-standard systems more rapidly.
- In your compliance management, you focus more on open standards. As a result, your IT policy or architecture management may need to incorporate specific rules concerning open standards. For instance, you could opt to include a list of mandatory standards in your architecture framework.
- In the governance process 'Procurement and supplier management', you have been paying closer attention to your suppliers' adoption of open standards. You have also carried this approach over to your standard specification documents and framework agreements. As a result, you may also want to already start doing this in your project portfolio, for instance by incorporating project standards into a project contract or project start architecture.

Option: Expanding a first case

If in the previous step you chose a specific, organisation-wide system as your first case, you must expand the range of governance tools. Initially, you must do this for the selected case. In addition to policy rules, you may choose to set up an architecture or incorporate specific requirements concerning open standards into the procurement specifications.

4.5 Step 4: Measure the results and start optimising

The previous chapter showed the interrelationship between the various governance processes. Consequently, steps 2 and 3 initiate a self-maintaining process of continuous improvement in the adoption of open standards.

Nevertheless, it is important – particularly in the beginning – to maintain a clear view of the progress. This can be achieved by means of the 'Check' step in each governance process.

Incorporate the results from the 'Check' step in the various governance processes centrally in the organisation. Where necessary, use these results to adjust governance processes.

This may necessitate the use of new tools or adjustment of existing tools. If you initially opted for a first case, you will be able to apply the experience you acquired as a best practice if you decide to expand the range of governance tools. This range of tools will then also be suitable for use in situations other than the first case.

4.6 In summary

- Start with a clear list detailing the maturity of the various governance processes.
- Implement tools from the annex to this guide in the most mature governance process.
- Gradually expand the adoption to other governance processes
- Maintain a central view over the progress and make adjustments where necessary.





IT policy brings multiple processes together and can be used to set out the choice for open standards.

5 Which tools may be used?

5.1 Introduction

This chapter contains a list of tools which may be used for each of the governance processes in relation to open standards. Depending on your situation, you may use one or more of these tools.

5.2 Compliance management

Periodically make a list of mandatory open standards. (Plan)

Check at regular intervals the list of the Standardisation Forum and Board and other sector-specific lists of open standards with which you are required to comply.

Perform an annual audit of the use of open standards and include the results in your operations report. (Check)

Report on the use of open standards stating whether you comply with the requisite standards and how you approach compliance.

5.3 IT policy

Incorporate openness and standards as a general guideline for IT. (Do)

Openness is an important quality factor. Include it as a general guideline with which projects and programmes must comply.

Incorporate specific standards or important facilities into the IT policy. (Do)

In some cases, specific standards or important facilities are crucial to the performance of an organisation. For instance, basic registers containing data on government organisations. Incorporate their use into your IT policy.

Draw up periodic assessments of the policy, elucidating the role of standards. (Check/Act)

Assess your policy and also examine the experiences with standards. Utilise this assessment to adjust the policy where necessary.

5.4 Architecture management

Specify in your organisation's target architecture the open standards that must be complied with. (Plan)

Outline the future process, information and application landscape, and determine which guiding principles are contributing to its establishment. Also specify which standards must be complied with.

Check whether the current ICT landscape is compliant with open standards. (Check)

Check whether the current ICT landscape functions in accordance with the standards incorporated into a target architecture or prescribed by external organisations.

If necessary, adjust the aspects of the target architecture that relate to open standards. (Act)

Incorporate new requirements, such as new open standards, into the target situation.

5.5 Portfolio management

Allocate budgets to projects that can accelerate the implementation of open standards. (Plan)

In certain cases, accelerated compliance with one or more specific open standards can be advisable. Allocate budgets to projects that may achieve this.

In the business case, take open standards into account in each project. (Plan)

Draw up a business case for each project, explaining its purpose and what it should achieve, detailing the role of open standards.

Design a project start architecture for each project, incorporating open standards and the assessment criteria. (Do)

Design a project start architecture for each project. This will serve as the technical framework within which the project must operate. Check whether this project start architecture specifies the requisite open standards.

Perform a Gateway Review on large-scale projects and programmes, utilising open standards as quality criteria. (Check)

Open standards are important quality criteria for projects and programmes, and should therefore be utilised in a Gateway Review.

Adjust projects when it emerges that they are insufficiently compliant with open standards. (Act)

If from an assessment or audit, it emerges that a project is insufficiently compliant with open standards, make adjustments.

5.6 Procurement and supplier management

Analyse your procurement market, and find out whether you are promoting the use of open standards by selecting certain suppliers or entering into certain partnerships (Plan)
Ensure transparency concerning your procurement market. Avoid a lock-in by expressly examining the role of open standards in your procurement market.

Embed open standards in the procurement strategy and incorporate a list of open standards into specification documents. (Do)

When products are procured, it is important that they comply with the requisite open standards. For most products, the same standards apply. Make agreements with your suppliers regarding these standards, for instance by means of special or standard specification documents.

Inform suppliers that closed standards will not be accepted. (Do)
Ensure that suppliers are alerted.

Involve suppliers in the selection of open standards at an early stage. (Do)

Suppliers can assist you in selecting open standards, especially if you do not have sufficient technical knowledge. To avoid a lock-in, you should therefore opt for a suitable partnership with your suppliers.

Assess suppliers and products in terms of their use of open standards. (Check/Act)

Assess preferred suppliers not only in terms of pricing and product quality, but also their use of open standards.

5.7 Summary

This chapter lists possible tools.

The annex to this booklet contains more in-depth information on specific tools, best practices and the PlanDoCheckAct cycle. It is

published as a separate document which is also available at www.forumstandaardisatie.nl/sturenop-openstandaarden.



Set the right example, and others will follow it

6 Example of an action plan

6.1 Introduction

This chapter contains an example of an action plan in a fictitious organisation.

6.2 Outline of situation

An implementing body has a large number of ICT systems, some of which have been in use for many years. Due to the emergence of eservices and the National Implementation Programme for Services and e-Government (NUP), ICT is in need of an overhaul. Furthermore, the organisation concerned is subject to mandatory open standards, but also wants to use sectoral open standards as much as possible in its own sector.

How can this organisation work towards this?

6.3 List of governance processes

Over the past few years, the organisation has taken its first steps in the area of architecture management. The IT policy has been reviewed due to the required changes. Portfolio management has been set up to ensure more effective cost management, but is still in its early stages.

Table 3 List of established governance processes

Process	Present	Responsible	Plan	Do	Check	Act
Compliance management	No	-	-	-	-	-
IT policy	Yes	IT Director	x	x	-	-
Architecture management	Yes	Group architect	x	x	x	x
Portfolio management	Yes	IT Director	-	x	-	-
Procurement/supplier management	No	-	-	-	-	-

The inventory leads to the following sequence:

6.4 Step 2: Implement tools in the most mature governance process

Architecture management emerges as the most mature process. In addition, the IT policy and portfolio management are in place.

The organisation therefore selects the following tools:

Architectuur

- The target architecture is supplemented with a list of mandatory standards.
- A specific analysis is made of the differences between the current ICT architecture and the target architecture.

Portfolio management

- A Gateway Review is performed on large-scale projects. Open standards are incorporated as a quality aspect.
- In the project dashboard, 'open standards' are incorporated as a criterion.
- A project start architecture is designed for each project; the projects are assessed in terms of their compliance with open standards.
- In the project selection, projects which contribute to the transition from the current to the future architecture – and therefore the adoption of open standards – are given priority.

6.5 Step 3: Adjust the overlying and underlying governance processes based on the results

After the tools are implemented, it emerges that the organisation has an insufficiently clear view of mandatory standards in the environment and their impact. It also transpires that open standards could be incorporated into specification documents more effectively.

IT policy

Open standards are being imposed as norms across the whole of the organisation.

Compliance management

The decision is made to more actively keep track of which standards are mandatory, amongst other things by means of the Standardisation Board's 'Comply or Explain' list for open standards.

Procurement

The Procurement department adds an 'Open standards' heading to the model specification document. Under which, for each tender, the open standards with which the product or project must comply are specified.

6.6 Step 4: Measure the results and start optimising

Architecture has proved to be the most suitable management tool for this organisation. Consequently, periodic checks are performed to establish the size of the 'gap' between the current architecture and the target architecture. This 'gap' is utilised in the planning of new projects, but also to establish the number of closed standards that still need to be replaced by open standards. There may also be open standards that need to be replaced by other open standards. This 'gap' is analysed biannually and discussed by the management team.

Based on the resulting information, the 'PlanDoCheckAct' cycle is started, increasing the use of open standards in the organisation.

6.7 Summary

The example demonstrates that:

- it is important to select tools that are suitable for the organisation
- gradual growth is possible and necessary, and can, for instance, be achieved through stepwise improvement of IT governance.
- it is important to start somewhere and continue to grow.

A close-up photograph of a man's face, looking directly at the camera with a focused expression. He is holding a row of six network jacks in his hands. The jacks are white with blue accents and feature colored circular indicators: yellow, pink, magenta, light blue, dark blue, and black. The background is a plain, light color.

The Standardisation Forum
provides the tools. It is you
who has to apply them.

7 Conclusions

Open standards are the norm according to government policy. They benefit interoperability and at the same time ensure supplier independence. However, in actual practice they demonstrate that migration from existing – often closed – standards to open standards can be difficult. Furthermore, the process of embedding open standards in new developments is often less than straightforward.

Governance of Open Standards

The benefits of open standards can only be achieved if they are actively striven for by means of, for instance, a process of adoption, implementation and utilisation in IT developments in your organisation. You can direct the use of open standards by incorporating them into the various IT governance processes.

You need to get started

This booklet outlines various tools your organisation can use to work towards the adoption of open standards.

Where you start depends on your specific situation. For instance, if you are extensive users of architecture, you should use architecture management as your management tool. But if you are focussing on improving your project portfolio, portfolio management would be a better choice.

Above all, make sure it has a knock-on effect. Learn from your experiences and utilise your successes.

Your response

We are keen to hear your experiences from your process of adopting, implementing and utilising open standards. Accordingly, we invite you to leave a response on the website www.forumstandaardisatie.nl. Based on your responses, we hope to be able to further extend the range of instruments and the list of best practices.

Additions and updates will be published at www.forumstandaardisatie.nl

If you have any questions, please send an e-mail to forumstandaardisatie@logius.nl

References

- 1 *Actieplan Nederland Open in Verbinding* (The Netherlands Open in Connection Action Plan), see <http://www.rijksoverheid.nl/documenten-en-publicaties/rapporten/2010/07/01/actieplannederland-open-in-verbinding.html>
- 2 European Interoperability Framework 1.0, see <http://ec.europa.eu/idabc/servlets/Doc?id=19529>
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- 5 IT Governance Institute 2003, 'Board Briefing on IT Governance, 2nd Edition', see http://www.isaca.org/Content/ContentGroups/ITGI3/Resources1/Board_Briefing_on_IT_Governance/26904_Board_Briefing_final.pdf
- 6 See the BServed project, and others, at <http://www.novay.nl/okb/projecten/bserverd/2376>
- 7 Deming cycle; see <http://www.balancedscorecard.org/thedemingcycle/tabid/112/default.aspx>

Colophon

If you have any questions or require further information on open standards, please contact the secretariat of the Standardisation Forum.

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This brochure is a publication by:

The Standardisation Forum
September 2011