PAS 98:2011

Standards consortia – Part I:

Formation and management – A good practice guide

BSI

Contents

Foreword

BSI PAS 98, providing guidance on the topic of standards consortia, has been developed under the aegis of the British Standards Institution by a group of experts with considerable experience in the working of consortia.

Consortia are playing a growing role in the development of standards, but the nature of their formation and management can sometimes give rise to misunderstanding amongst observers as to their objectives. This negativity can be particularly prevalent in business and industry sectors where consortia have not yet had the opportunity to demonstrate meaningful and beneficial influence.

In an attempt to correct such misconception, BSI convened a group of experts with experience in the world of consortia to capture current good practice in the formation and management of consortia. This is presented in a manner that will assist interested parties to understand how a consortium can best meet the needs of its members within the constraints placed upon it by the community in which it operates. The result is PAS 98, which offers guidance on the formation, management and understanding of consortia formed for standards-related purposes.

This guidance is presented in two parts, with both parts addressing the attributes of establishing, governing and operating consortia formed for standards-related purposes, but with Part I doing so from the perspective of those undertaking those roles and Part II considering the needs of members and potential members. Although the latter part is primarily intended to assist entities considering participation in consortia activity for the first time, the process described may well be useful to existing consortia members and be found to be of assistance to standards consortium management in assessing the functionality of their own consortium.

Acknowledgement is given to the following organizations that were consulted in the development of both PAS 98 documents:

- Adobe Systems Inc.
- BSI Consumer & Public Interest Network (CPIN)
- CEN (European Committee for Standardization)
- Department for Business, Innovation and Skills (BIS)
- Gesmer Updegrove LLP
- IBM, Europe
- Sun Microsystems
- University of Reading
- ZFIB Conseil
- 79 Brinkburn Ltd

Comments from other parties were also sought by BSI. The expert contributions from all the organizations and individuals consulted in the development of both parts of this BSI PAS are gratefully acknowledged.

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The parts of this BSI PAS, either jointly or together, do not purport to include all the necessary provisions of a contract. Users are responsible for their correct application.

Attention is drawn to the fact that this BSI PAS is not intended to support compliance assessment processes and that following the guidance of either or both parts does not of itself confer immunity from legal obligations.

Neither part of this BSI PAS is to be regarded as a British Standard.

0 Introduction

0.1 General

This BSI PAS brings together the views of experts with experience of consortia in order to provide guidance for the establishment and operation of consortia formed primarily for standards-related purposes. The information it provides will be found to be relevant to many business sectors and disciplines.

For the purposes of BSI PAS 98, any documented specification, practice or procedure that promotes an agreed course of action or behaviour to achieve a predetermined level of quality or attainment amongst an identified stakeholder group can be considered as a standard.

A significant number of standards (frequently identified as "formal standards") are produced on a national, regional or worldwide basis by bodies operating rigorous procedures that embody the principles of diverse input and consensus. The standards developed by such bodies are generally intended for voluntary application, although they can become mandatory if taken up in legislation or regulation, or if cited in a contract.

Standards can also be developed privately or unilaterally, for example by a specific company or other commercial entity, government or regulatory body. Standards can also be developed by groups such as trade unions, trade associations, communities of interest or groups of organizations agreeing formally or informally to work together for that purpose. It is to assist in the enhancement of recognition and credibility of these latter standards development groups (standards consortia) that this guide has been prepared.

The purpose of Part I of this document is to identify and explain good practice and basic legal requirements pertinent to the formation and management of consortia for which the development of standards is a significant objective. It sets out a range of well-proven, industry-approved good practices inherent in creating such organizations, such as legal, management and membership structures, while also examining the unique opportunities that standards consortia can provide. Part II provides guidance on what to look out for when reviewing consortia from the user perspective and outlines a practical process for assessing the relevance and performance of consortia for use by entities considering engagement.

Throughout this BSI PAS, wherever the terms consortium and consortia are used without qualification, they refer to entities for which the development of standards is the main activity.

Consortia are business tools, designed to make the process of standardization more efficient, controllable and, ultimately, useful to industry. As originally envisaged, the use of consortia would allow much more direct control of the process of standardization for their members, with the outcome that the resulting standards could be more directly relevant to members' needs or available in a more timely manner than might otherwise have been the case.

Standardization consortia are formed for one or other of two major reasons. The first is to reach common agreement on a clear, direct course of collective industry action. Such need most frequently arises in subject areas characterized by fast-moving technology or rapid change where swift, united decision is necessary to prevent the process running into conflict or dead ends. The second reason is that consortia provide a setting in which organizations can work together in a manner that will offer some protection from anti-trust or anti-competitive implications. Such an arrangement can indeed facilitate the standardization process to the benefit of industry and users above and beyond that provided by other organizations engaged in the development of standards.

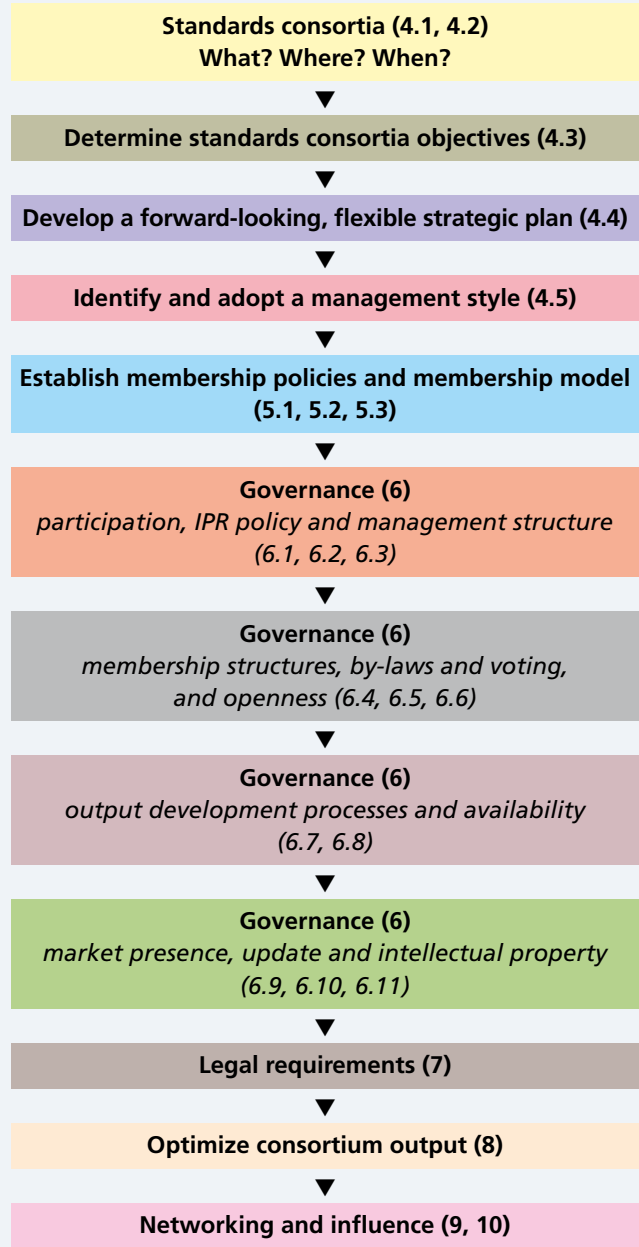Consortia, as tools of their members, can be used in many different ways. Consortia exist to:

a) develop new standards;

b) help develop markets for new products and services;

c) develop new technology;

d) influence future legislation (lobbying groups);

e) advocate for public policy;

f) develop and manage conformance, certification and branding programmes.

0.2 How to use this document

This PAS has been designed in such a way as to highlight the core concepts, expressed as guidance, underpinning the establishment and management of standards consortia. These core concepts are then supported by concept notes that give supplementary guidance in their support.

Clause **2** of BSI PAS 98 provides a list of terms defined to aid understanding and use of this BSI PAS. Where these defined terms appear for the first time, they are distinguished from other text using a shaded typeface.

Figure 1 – Standards consortia: good practice overview

Standards consortia (4.1, 4.2) **What? Where? When?**
▼
Determine standards consortia objectives (4.3)
▼
Develop a forward-looking, flexible strategic plan (4.4)
▼
Identify and adopt a management style (4.5)
▼
Establish membership policies and membership model **(5.1, 5.2, 5.3)**
▼
Governance (6) *participation, IPR policy and management structure* *(6.1, 6.2, 6.3)*
▼
Governance (6) *membership structures, by-laws and voting,* *and openness (6.4, 6.5, 6.6)*
▼
Governance (6) *output development processes and availability* *(6.7, 6.8)*
▼
Governance (6) *market presence, update and intellectual property* *(6.9, 6.10, 6.11)*
▼
Legal requirements (7)
▼
Optimize consortium output (8)
▼
Networking and influence (9, 10)

1 Scope

BSI PAS 98 Part I sets out guidance on good practice in the establishment and management of consortia formed for, or substantially focused on, standards-related purposes.

This includes guidance in respect of:

- the management structures most appropriate to the governance of the proposed consortium activity;
- the procedures likely to prove most effective for specific activity types;
- the terms and prerequisites applicable to consortium membership;
- the selection and delivery of services that the consortium might provide, including guidance on the availability of consortia output.

This BSI PAS does not include any recommendation in respect of the nature or quality of consortia output beyond the fundamental recognition that it will be standards-related.

It also identifies some of the legal requirements that may apply to consortium activity and recommends actions by means of which the consortium might meet those requirements.

This BSI PAS is not a management system standard. It is not intended or appropriate for certification purposes, regulatory or contractual use. Any offer to certify, or claims to be certified, to BSI PAS 98 would be a misrepresentation of the intent and purpose of this BSI PAS.

Although intended for application in both the public and private sectors, these guidelines do not purport to provide a blueprint for the perfect consortium. They do, however, establish good practice for the governance of consortia in a manner commensurate with running an efficient, effective and representative organization regardless of national frontiers.

2 Terms and definitions

For the purposes of this BSI PAS, the following terms and definitions apply. Defined terms are shown in a shaded typeface when first used.

2.1 by-laws (also known as charter and constitution)

set of rules through the application of which a consortium is governed

2.2 consensus

general agreement, characterized by the absence of sustained opposition to substantial issues by any important part of the concerned interests, and by a process founded on seeking to take into account the views of all parties concerned and the reconciliation of conflict

NOTE Consensus need not imply unanimity.

[ISO/IEC Guide 2:2004, definition **1.7**]

2.3 critical mass

minimum size or amount of resources required to launch or sustain an effective consortium

2.4 intellectual property rights (IPR) policy

policy that governs the treatment of intellectual property, including copyright, licensing terms and patent disclosure procedures, in the production of the consortium's deliverables

NOTE This declaration generally involves where and when patent claims are disclosed, and the licensing requirements involved, generally on at least reasonable and non-discriminatory terms.

2.5 interoperability

ability of consortia output to operate in conjunction with other standards

2.6 openness

generalized commitment to inclusive concepts and practices, such as consensus (**2.2**) or majority-driven procedures, appropriate IPR policy rules and operational transparency

2.7 output

end result of a consortium's activities

NOTE *This could be a* standard*, specification, best practice guide, report, etc.*

2.8 procurement policy

extensive guidelines on the standards and specifications required when an organization (usually in the public sector) commissions work from external providers

2.9 resources

supply of money, personnel, infrastructure and time available to a project

2.10 standards development organization (SDO)

organization whose primary activities are developing, coordinating, amending, supplying and maintaining standards under national, regional or international authority

NOTE *SDOs are frequently recognized nationally and internationally for their documented and transparent standards development processes.*

2.11 standard

document that establishes (commonly agreed), uniform specifications, criteria, methods, processes or practices for use in a specified context

2.12 standards consortium

entity formed by organizations functioning in cooperation to achieve objectives substantially focused on standards and standards-related activities

NOTE *Where reference is made to consortia or a consortium in BSI PAS 98, this refers to standards consortia as defined in* **2.12***.*

2.13 thought leadership

process of distilling innovative ideas and promoting or sharing them as actions that will benefit others*

NOTE **Either the audience at which the consortium is aimed or, in the case of a membership focus, the consortium as an organizational entity and its members.*

2.14 transparent

not hidden, discoverable, traceable or examinable

2.15 transparency

state of being transparent

2.16 user

entity seeking benefit from interaction with a consortium or its output (**2.7**)

NOTE *Users may also be consortium members.*

2.17 vendor

entity making knowledge, goods or services available for sale

3 Abbreviations

For the purposes of this PAS, the following abbreviations apply.

3.1 CIO

chief information officer

3.2 CMO

chief marketing officer

3.3 COO

chief operations officer

3.4 CTO

chief technology/technical officer

3.5 ICT

information and communication technology

3.6 IPR

intellectual property rights

3.7 ISO

International Organization for Standardization

3.8 IT

information technology

3.9 JTC 1

Joint Technical Committee 1 of the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC)

3.10 MoU

memorandum of understanding

3.11 PR

public relations

3.12 RAND

reasonable and non-discriminatory (also known as FRAND: fair, reasonable and non-discriminatory)

3.13 SDO

standards development organization (**2.10**)

3.14 SIG

special interest group

3.15 VP

vice-president

4 Standards consortia – their nature and establishment

4.1 What is a standards consortium?

A standards consortium is an organizational entity constituted of cooperating members (**2.12**) established as a business tool to facilitate the development of standards in an efficient, effective and industry-relevant manner.

4.2 Where and when could a standards consortium be established?

A standards consortium (**2.12** and **4.1**) could be established wherever there are no overriding legal restrictions that would prevent the formation of such an entity and where several organizations with mutually compatible interests perceive potential benefit in cooperation to achieve common standards-related objectives.

4.3 Standards consortia purpose

The organizations undertaking the formation of such an entity should ensure that the objectives for establishing a consortium (**4.2**) are clearly and unambiguously expressed, recorded and made available to all future members. This recorded statement of consortia activities and intentions should be reviewed periodically and revised as necessary to maintain their ongoing relevance to members.

Concept notes to 4.1, 4.2 and 4.3

Consortia are formed to develop deliverables and services consistent with the needs of their members, and these are often of value to a wide range of stakeholders across industry. The consortium concept was conceived to facilitate the adoption of common technical specifications and decisions in respect of collective action in a broad business sense, from conception to completion. They are generally created and funded by the companies who want to see those collective decisions adopted and implemented. Participating organizations can be willing to invest considerable resource in reaching out to user communities via consortia. Consortia can become powerful organizations that have the ability to initiate profound changes in many types of industry.

Some of the most common reasons for establishing standards consortia include:

Technology enhancement

Consortia that begin as groups dedicated to developing one or more standards to support a new technology are the most common. These groups, however, usually start with consensus on a particular market need that should be addressed, such as interoperability of consortia outputs, and it is not uncommon for a consortium to use as a starting point a specification that has been developed by one or more of its founding members. For instance, a group might be started to develop GPS (Global Positioning System) technology towards a next-generation implementation, but using a technology that favours a specific set of companies or a specific geography or geographic area (e.g. Europe, Korea, the Americas), or one that has been developed by a company or group of companies (e.g. a video codec or recording format).

While consortia are frequently formed to develop and maintain a single standard, many consortia grow and mature into (or are launched with the intention of becoming) organizations responsible for domain-focused standards or a family of standards intended to have indefinite duration. These consortia will launch new projects and working groups and evolve as their source industry evolves.

Marketing

Some consortia are begun as marketing tools. In such cases, there is generally a technology that a group of companies have coalesced around and are looking to market to a wider audience under a flagship brand or banner that could be enhanced through the provision of related standards.

Reactive consortia

There are times when membership in a consortium is not to the advantage of an entity considering membership, perhaps due to IPR rules, membership regulations or some other perceived feature or failing of the consortium. It is quite common for a "rival" consortium to be established to counter the influence of an existing consortium. In such cases, the ability to control the direction and output of the consortium is usually the deciding factor in the reactive consortium's creation. A consortium that is created for this purpose generally has a single, specific goal, be it technical or marketing, that is heavily influenced by the founding members of the consortium. Reactive consortia usually spring up when a new market sector has been proven to be ripe for development or profit and an existing organization is blocking the attempts of at least one market participant to gain a foothold and no other consortium appears to be appropriate to meet the need, or an existing appropriate organization is unwilling to undertake the project.

Leadership

The above reasons are some of the most common for the instigation of a consortium. Frequently, consortia are started by a "visionary" (either a company or individual) who rallies support from other companies and organizations, although the concept can also emerge as a potential solution from group discussions around particular problems or developing circumstances. It has been demonstrated that consortia are most effective when there is a real or perceived need for a collective solution, particularly when that need is to fill a market niche with a specific technology that needs to be implemented in an interoperable manner.
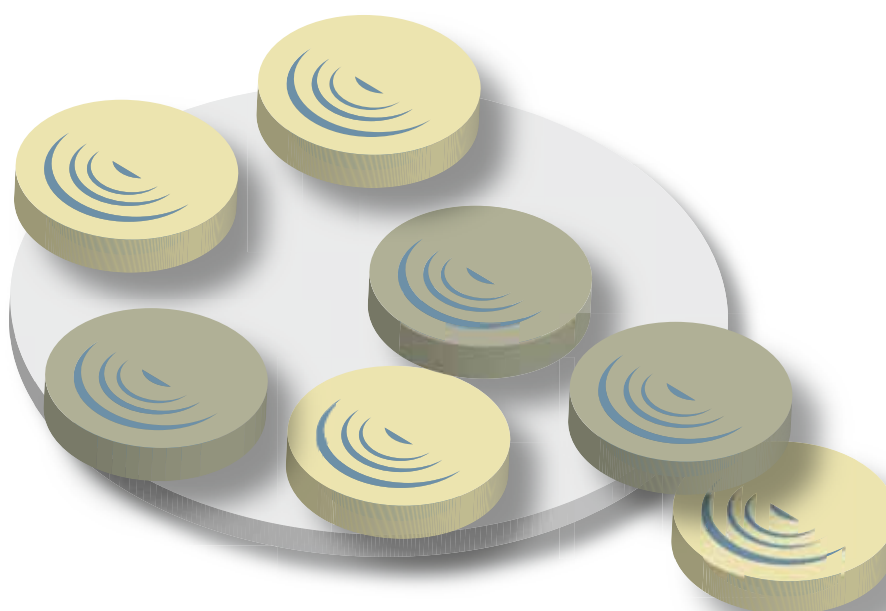
4.4 Strategic planning

In striving to achieve the objectives for which it was established, the consortium should: create a forward-looking, strategic plan that is sufficiently flexible to allow the consortium to anticipate and interpret coming market opportunities. This will facilitate the consortium's engagement with them to the end that the consortium's objectives (**4.2**) can be achieved to the optimum extent. The plan should be prepared in such a manner that it is capable of:

• recognizing the changing needs of users (including members) and reacting to them;

• optimizing user input to the consortium;

• providing timely progress/outcome reports to users;

• facilitating user feedback on outcomes, on an ongoing basis.

Such a strategy will be found to optimize the consortium's influence through openness and influence.

◉ Concept notes to 4.4

To achieve the necessary flexibility for such a plan to work, some consortia choose to involve their user members at the strategic decision-making level by reserving a seat on the consortium's board of directors for a representative of the user community. Other consortia (especially those working closely with the defence industry or with government lobbying efforts) have chosen to establish networking opportunities that emphasize end-user interaction. These meetings can be as informal as a cocktail reception or as structured as a minuted committee meeting before representatives of government. Others require a balance of membership, where members of the user community, the government and the companies all participate on an equitable basis.

The feedback mechanisms can be included at the top level, perhaps taking the shape of user councils that report to the board, or at a grass-roots level, such as automated public comment fora. The incidence of inviting public review of proposed output is increasing in frequency as consortia look for comment and opinion from outside their membership. The establishment of local or national organizations, such as chapters, sections or user fora, can also provide a low-cost channel into user insights.
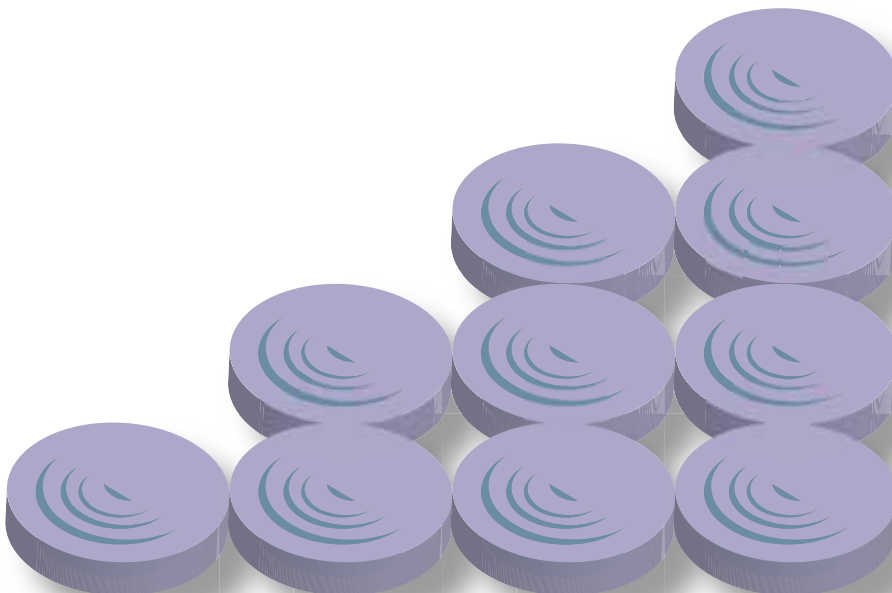
4.5 Management options

The consortium should identify and adopt the management style that best fits its collective needs and expectations. Application of the criteria provided in the concept notes to **4.5** can be beneficial in achieving this.

Concept notes to 4.5

Having decided that a consortium is the correct instrument to develop the desired result, potential members next need to choose the management style of the consortium they wish to establish. There are many styles of consortia for a group of potential members to choose from. While not exhaustive, some of the different management structures are presented in the following list.

a) Voluntary management
This type of consortium is generally a collection of users, usually individuals, with no set management structure, who collaborate on a set technical issue. There is usually no outsourced staff, and leadership is provided on a voluntary basis.

b) Single-member-provided management
A consortium in which a single member (usually a founding member) provides the day-to-day operations and assumes the secretariat functions for the consortium.

c) Small independent management
A consortium that has a small, independent management structure (usually only one or two staff) that works closely with its leading members to set the policy for the consortium independently of (but with input from) its full membership. This type of structure is generally found in public policy groups and in some longer-standing consortia.

d) Large independent management
As in c), but with a larger staff. The staff may be utilized to execute programmes such as marketing, web/IT, development, research and working groups. Consortia utilizing this type of management structure are generally larger, higher-budgeted groups with a global presence in many sectors.

e) Outsourced management
Applicable to both large and small consortia, this management type is characterized by the assignation of operations and day-to-day management to a third party. The membership still sets the agenda for the group, but the management company executes the strategic plan, providing all needed services from IT to PR, including items as diverse as events coordination, testing and certification.

5 Constitution

5.1 Membership policies

The policies through which membership is organized and managed should be appropriate for achievement of the consortium's objectives (**4.1**) and meeting the needs and expectations of its members (**4.2**).

There are many different membership models in existence (**5.2**), and selection of one of them, or even the determination of a new structure unique to the needs of the consortium, should be one of the earliest actions of the consortium founders. The guidance provided in the concept notes to **5.1** will assist in this determination.

Membership policies should be reviewed periodically to ensure they continue to meet the needs of the members.

Concept notes to 5.1

The membership of a consortium is responsible for the establishment, operation, public perception and, ultimately, success of the consortium. Membership structures are an important part of how a consortium operates. There are many different membership models available, depending on the business needs of the consortium. Some membership-related aspects of significance in this context are examined in a), b) and c):

a) Critical mass
How many members, at what level of resource contribution, need to be in place for a consortium to successfully launch? Typically, a consortium will require a group of enough "core" members who are able to contribute a significant amount of resources to its establishment and carry it through its first period or "wave" of activity. These members would have the added responsibility of acting as the main advocates for the consortium and recruiting the second wave of members (whose membership will sustain the consortium through its second period).

b) Membership restrictions
The founder members of the consortium should answer the following questions before the determination of the membership structure. Will the consortium's membership be open to anyone willing to meet the financial and resource commitments, or will the membership be restricted in some way(s)? If membership is to be restricted, it is essential that the core members be sure that the potential membership base is still large enough to support the consortium.

Typical restrictions include:

- limiting involvement to organizations with a specific business model or within a single industry (e.g. cable television broadcasters, silicon chip manufacturers, oil extraction equipment manufacturers);

- individual members only (generally these are trade associations);

- late entrants to the consortium (e.g. members that join after the initial 6 or 12-month period and may only be eligible for reduced benefits);

- members joining "by invitation only";

- potentially conflicting IPR policies;

- technologies in competition without possible agreement on related patents.

However, in some situations, restricting membership could have an adverse impact on the success of the consortium; it is recommended that membership be as open as possible.

c) Special requirements
Any special requirements that the structure of the consortium will have to accommodate should be taken into account before the determination of the membership structure. For example, the following considerations might need to be taken into account. Will there be a separate category of membership fees for organizations from developing nations? Will government members be given preferential rates on membership? Are there members with special privileges, such as guaranteed seats on the board of directors of the consortium?

5.2 Membership models

The consortium should have a transparent membership model in place developed in accordance with its ultimate goals, and this model should encourage participation by all members in a structured environment, with clear practices that will allow the members to advance their goals to mutual advantage.

Concept notes to 5.2

Many different types of membership model exist. The most popular are described in the following list:

a) Flat membership
All members have the same rights and responsibilities.

b) Revenue- or size-based membership
Members have the same rights and responsibilities, but fees are calculated on a scale linked to members' company revenues or number of employees.

c) Tiered membership
There are multiple service levels available, and members are allowed to determine their level of membership involvement.
NOTE This generally involves an increased commitment of resources for increased privileges.

d) Individual membership
No corporate or agency memberships are allowed, only involvement by individuals.

e) Founding membership
Full membership is reserved for original founders; others are allowed to see or use the output to become early providers or adopters but have little input into the development of the consortium's output.

Many consortia utilize these membership structures or some combination of them.

5.3 Membership – influencing factors

The consortium should take the following factors into account when establishing a membership structure appropriate to its requirements:

a) Membership diversity
What kind of membership does the consortium need to operate effectively, and what sort of balance should be achieved? Failure to address this could result in less useful outputs being developed.

b) Membership services
What services should the consortium be designed to provide? Some common services include standards development, networking opportunities, publishing, testing and certification, branding and marketing programmes. Such service offerings should be detailed, and the consortium designed to fulfil its business needs.

c) Membership value
This is the relationship between the cost in resources of establishing and maintaining a consortium and the subsequent value gained by a member from participating in the consortium.

Concept notes to 5.3

a) Membership diversity
The consortium should have a significant number of all interested parties from its sector and industry in order to maximize its chances of success. This will provide a healthy mix of opinions, perspectives and input, conducive to the establishment of productive output from the consortium in line with the objectives of its members.

In determining the membership diversity of a consortium, it is important to have an understanding of the key players in most consortium memberships. A summary of some of the most common members of consortia are given in the following list:

- Vendors/industry heavyweights
  – These are likely to constitute the consortium's primary funding memberships.

- Suppliers
  – Including secondary suppliers in the value chain for the products/services being standardized.

- End users
  – Members who have bought into the vision to which the specifications and mission of the consortia respond.

- National governments/non-governmental organizations
  – Examples include state and local government.

- Academia
  – Universities, usually with close ties to user groups.

By way of example, in ICT consortia, vendors are generally the most numerous, providing the majority of the resources the consortium needs to operate. If these core members are not present, or if there is only a small number of them involved in a consortium relative to other membership types, then there might be a critical imbalance in the consortium's membership, hampering the execution of its goals.

b) Membership services

The consortium should tailor the services it offers to meet the requirements of its members in the context of the agreed objectives and terms of reference. It is recommended that the consortium give consideration to the following:

i. Communication services

The consortium should consider the following options associated with standardization activities:

- provide representation and policy influence with government;

- offer its members networking opportunities by organizing a set of events such as conferences, membership meetings and even some less formal gatherings and aim to develop a community of practice among consortium members;

- open its internal processes and communications as much as practicable in order to enhance openness and the perception of openness;

- foster avenues to the press at appropriate opportunities;

- communicate its events to the wider world, and the more interest that can be generated in the consortium, the better. Websites, focused public relations and marketing communications can form the backbone of a consortium's marketing campaign;

- cultivate as many speaking opportunities and keynote addresses as possible to generate positive word of mouth marketing;

- rely heavily on its membership to propagate publicity, allowing for targeted industry interest and endeavouring to ensure coordinated output to maintain a consistent, credible public image of the consortium and its work.

ii. Technical services

In delivering its technical services, the consortium should:

- establish and maintain a well-run, open and efficient technical process capable of supporting the development of well-respected standards in a timely fashion;

- offer training courses to its members, provided either by the consortium itself or by a reputable provider, as a means of furthering their professional development;

- put in place a catalogue of the technical specifications or standards output by the consortium and the corresponding product implementations that chart the usage (in products registered, number of downloads, etc.) of the consortium's output as soon as the output is realized. Similarly, links to studies or additional market information that would be of benefit to members should be established;

- have access to technology that will meet the needs of its members, such as videoconferencing facilities, web hosting services, blogs, membership wikis and basic IT knowledge.

The services identified above represent some of the most popular services that consortia offer their memberships.

Networking opportunities are consistently voted the top attraction by consortia members, and their importance cannot be emphasized enough. The more opportunities members have to interact with one another, the happier the members are likely to be with the consortium.

Public relations communications can include the output of the consortium, press releases, reports, event information or other statements of interest. This can be a major point for members when justifying the cost of consortium membership.

Additional services that could also be used as measures of success are:

- branding;

- conformance testing/certification;

- IPR services;

- training;

- output catalogue;

- information store;

- use of modern tools and methodologies;

- normative and technology watch;

- liaison with relevant SDOs.

These are more specialized and are not necessarily required for all consortia, although in general, provided they are targeted at members needs, the more services there are for members, the better the value of the consortium.

In addition to events coordination/networking, publishing and publicity, there are a number of important services a consortium might be able to offer its membership. Such service offerings generally depend on the type of consortium and the type of output that the consortium is generating.

c) Membership value

The consortium should offer a clear, precise set of privileges and entitlements to its members commensurate with their membership level. The relationship between fees/costs and perquisites should be clear and unambiguous to prospective members in order to facilitate their assessment of how membership will benefit their organization.

Membership in consortia can be expensive in terms of cash, personnel and infrastructure. Providing value to members commensurate with their level of investment should be one of the primary tasks of any consortium.

Although investment of personnel or goods from members can provide the necessary resources, most consortia have a set of fees for participating in the group's work, usually in the form of annual membership dues or similar. These can range vastly in amount depending on the membership model of the consortium and the level of membership required to sustain the organization of the consortium. Some consortia also have additional fees for licensing the specifications, technologies, test suites or intellectual property (including actual technology, implementation of technology, or brand or conformance marks). Some consortia require an investment of personnel or goods from their members. These costs should be made explicit and included in the membership literature. Perquisites/membership rewards can take many forms. Some of the most popular are identified in the following list:

- early access to output (e.g. standards, specifications, white papers, good practice guides);

- networking opportunities (e.g. conferences and events offering opportunity to share knowledge, meet with peers and interact with others in industry in a sanctioned environment);

- access to output setting for the consortium (e.g. eligibility to serve on or run a working group or equivalent within the consortium, or appear on a similar marketing, technology or industry group);

- access to policy setting for the consortium (e.g. this could be a guaranteed seat on the board of directors or equivalent, though it can also be a guarantee of eligibility to run for said roles);

- publicity (e.g. the member is afforded the opportunity to publicly proclaim their membership and take advantage of additional avenues of PR via the consortium);

- reduction in output fees (e.g. the consortium's output available to members for reduced/ waived fees);

- consortia generally offer a combination of all of these "perks" to their highest-level members and some restricted combination to lesser members, often at a reduced fee level.

6 Governance

6.1 Participation

The consortium should have in place mechanisms that facilitate participation by interested stakeholders in a transparent environment that cannot be construed as being anticompetitive.

6.2 IPR policy

The consortium should provide its members with a set of publicly available IPR guidelines that includes clarification as to when and how confidentiality applies and a forum to allow mutual resolution of IPR issues (**6.11**).

6.3 Management structure

The consortium should ensure that its management structure and related responsibilities are appropriate to achieving the agreed objectives of the consortium (**4.2**) within the established terms of reference and that they are clearly defined and communicated both to members and to external stakeholders where appropriate.

Concept notes to 6.3

Some consortia assign executive responsibility to one very prestigious person, while most elect to fulfil this leadership requirement with a board of directors, generally elected from the membership. The board of directors is responsible for setting the overall strategic focus of the consortium as well as for directing its long-term operations. Most boards consist of members elected or assigned to the position dependent on their membership level. In some cases, there may be seats on the board reserved for government, academia, developing nations, users or other stakeholders that the consortium wishes to include at a strategic level. The board may either hire or appoint one of its own to the position of president or similar post, to manage the day-to-day operations of the consortium as well as to manage staff, if there are any.

6.4 Membership structures

The consortium should look to its participants to agree on a membership structure once the membership requirements and baseline determinants have been assessed. This structure can be as complex or simple as the business needs of members dictates, commensurate with achieving the objectives of the consortium.

Concept notes to 6.4

A consortium that desires all its members to have the same input into the consortium can opt for a flat membership structure in which all fees and privileges are equal for all members. In contrast, a consortium may opt to have a set of "founder" companies that are permanent members of the board while restricting new members to classes of membership with fewer privileges (in effect, a penalty for coming late to the party).
NOTE Consortia that utilize closed membership structures are unusual, and such structures should not be taken as good practice due to their exclusionary, rather than inclusive, nature.

Perhaps the most widely used system is somewhere between the two, allowing members to choose their level of participation in the consortium. Such a system might offer membership at sponsor (board level), full member (leadership opportunity on technical committees) or associate member (early access to output, ability to serve on technical committees) level, and then an array of technical participation avenues, such as working group observer or similar. There might also be separate categories for government and standards development organization (SDO) participation, and for academics and individuals. This type of set-up allows a consortium maximum flexibility; it provides the core membership necessary for the consortium to sustain itself but also encourages maximum participation from various stakeholders.

This can be achieved through the formation of special interest groups (SIGs) with restricted membership and/or reserve board seats for founding members. However, as recommended in the core concepts of this PAS, a majority of consortia provide open access to all applicants at all levels.

6.5 By-laws and voting

The consortium should make its by-laws and decision-making procedures transparent, public and available for viewing before a membership agreement is in place.

Concept notes to 6.5

Most consortia restrict the strategic decision-making responsibilities (such as determining the direction of the consortia, budget distribution and other similar matters) to the board of directors, whereas day-to-day matters, such as operations, events and marketing, are generally not board-restricted. Whatever its preferred option in this respect, the consortium should:

- demonstrate openness, or intention of openness, by providing potential members with unambiguous information on membership structures, voting procedures and the consortium's commitment to consensus, providing a clear picture of how it is operated through its by-laws (or charter, constitution, etc.);

- ensure that the board's responsibilities are clear and transparent;

- make the mechanisms of its voting procedures publicly available, including details of the percentage of voting members required for a ballot to be valid.

6.6 Openness

The consortium should make its objectives, policies and procedures publicly available, including those relating to intellectual property, confidentiality, and its by-laws and membership structures.

Concept notes to 6.6

Notwithstanding the need for a consortium to consider the potential benefits of adopting an open approach, it is a consortium's role to fulfil the requirements and expectations of its members.

It could be appropriate, for example, for a consortium to give consideration to the impact of making information available to customers of its members or to the community at large, but in the event that consortium members decide that such an approach is not generally in their best interest, then there is no overriding requirement for the consortium to do so.

What a consortium says publicly about itself is very important. Such statements can be in the form of mission statements, pledges and similar documents, but it is important that the format be carefully crafted, vetted for unintentional messages and appropriately presented.

6.7 Output development processes

The consortium should develop standards, specifications, best practices, studies and other output in accordance with a publicly stated set of guidelines.

Concept notes to 6.7

When a consortium has been formed to operate in a very narrow area, it is common for projects to be initiated by the board of directors, who then pass the project to a work group or equivalent to steer through the main body of the development process before the board regains control to vote on the output's adoption or rejection. Consortia that allow their full membership to contribute to the process and document each stage in a timely and efficient manner will be regarded as more open. Whatever its preferred option in this respect, the consortium should:

- clearly indicate the committees (or similar) involved in the development process at each stage, from conception to operations to conclusion;

- establish and document a policy on the initiation of work;

- consider establishing a public review system. The review process will be considered more open if there is a public review mechanism available;

- set an appropriate time frame for the review of contributions, lest the project be unreasonably delayed;

- ensure that all development processes support the aim of achieving timely output.

In respect of any public review system that might be employed, the consortium should consider the value of using a public call for comments, posting on websites, comment/feedback wikis or other publicly accessible practices that allow for confidential, non-biased comments.
*NOTE Attention is drawn to **WTO G/TBT/ 1/REV. 8. Section I,** Decision of the Committee on Principles for the Development of International Standards, Guides and Recommendations with Relation to Articles 2, 5 and Annex 3 of the Agreement.*
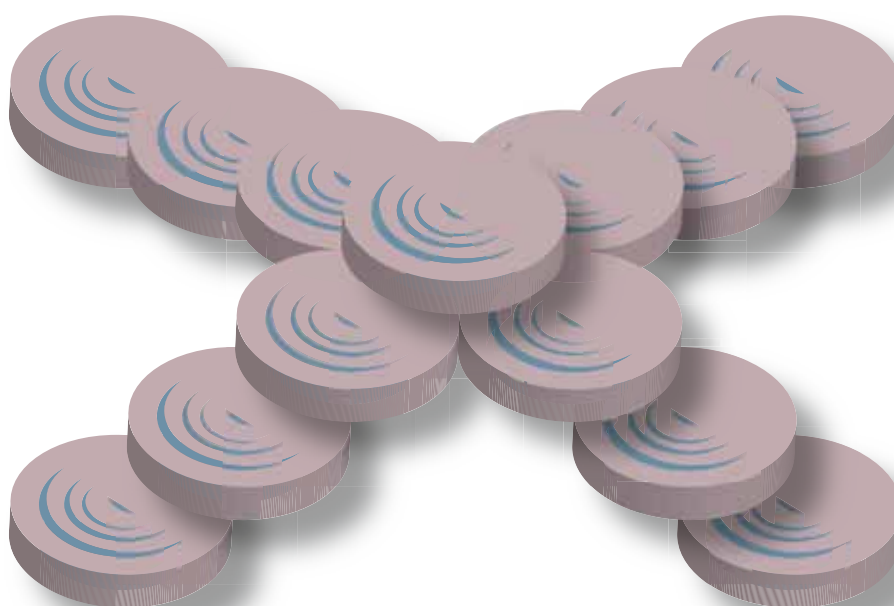
6.8 Output availability

The consortium should make its output (i.e. specifications, standards, guides or papers) available to as many stakeholders as possible (**8**), supporting it through provision of some form of reference implementation guide to explain the overall intent of each output. Such a document can be key to conveying understanding as to how potential users can best utilize the output, and can provide insight into the background, current uses and future considerations for implementation.

The consortium should commit itself to a sustained policy of maintenance for its output and provide assurances to users that support functions will be available for the life of that output. Any decision as to minimum duration or early cut-off should be made known at the earliest practicable time.

Concept notes to 6.8

Virtually all consortia choose to provide this output for free. Some consortia choose to charge a fee for accessing their output, whilst others do not charge their own members. Providing output for free will generally be considered to be more open than electing to charge a fee for the output.

Maintenance functions can take many forms. Some consortia assign entire working groups to the constant development and improvement of output, while others organize meetings to gather the personnel needed to further develop output.

6.9 Market presence

The consortium should adopt as a primary goal that its identity should become synonymous with its sector, and its success in achieving this should be assessed by how the consortium is portrayed in the media and perceived by stakeholders generally.

Concept notes to 6.9

The consortium should have an effective, sustainable programme for achieving presence in its market. Such a programme for the launch of a consortium should include, in the first year: plans for generating critical mass for launch, a high-profile launch campaign, building positive word of mouth marketing, and establishing deliverables milestones that ensure maximum exposure and results soon after launch. This plan should allow the consortium the time needed to engage in the first developments of its output while keeping the consortium firmly in the front of the industry's mind. The consortium should also have a method of engaging its members as extensions of itself in marketing and market presence.

Sustained success in this approach will result in the consortium achieving a positive reputation in the industry, with a corresponding increase in gravitas accorded to initiatives or work in which the consortium engages.

6.10 Market update

The consortium should have a mechanism to assess the market uptake of their output, monitor overall market relevance and keep members informed in these respects.

Concept notes to 6.10

The consortium should be able to support its market update assessments (e.g. through provision of case studies of its member's product successes). Simple methods for such assessment include tallying the number of downloads of the output and recording the number of attendees at plugfests or other technical programmes.
NOTE A plugfest is a group interoperability test or demonstration of interoperability.

More advanced techniques include creating a register of products that include or utilize the consortium's output, citing the number of products sold that include the output, and commissioning a market penetration study.

The provision of case studies illustrates that the members are using the specifications to produce products or deliver services and are willing to credit the consortium specifications as part of their success story, strengthening both the members' story as well as the consortium's reputation.

The greater the uptake of a consortium's output, the more successful the consortium. Though it is by no means the only parameter to measure the success of a consortium, it is one of the most vital factors.

6.11 Intellectual property policy

The consortium should determine and publish its IPR policy in clear, unambiguous terms, monitor its relevance over time and publicize any changes or modifications in a timely manner.

Concept notes to 6.11

Many consortia establish RAND or FRAND as the minimal licensing mode that its members need to agree to when participating in consortium work or, sometimes, when joining the consortium.

In some cases, a consortium may decide to allow members to explicitly withdraw specific IP from their licensing commitment; this is generally allowed to happen within a window of opportunity for each specification.

An alternative option can be to either require in all cases or to allow for royalty-free licensing modes to be set up, either as their minimal licensing mode or as an allowed mode for some of their output. A royalty-free licensing mode is an IPR licensing policy which states that patent claims will be licensed for no fees or royalties.

In most cases, though, it is universal practice to commit members who participate in consortium output to disclose their relevant IP in that area.

7 Legal requirements

7.1 General

The consortium should have a publicly available set of policies regarding its legal status, ensuring that this includes a general set of procedures and policies designed to protect and serve its members. The specific details of these policies should be determined in accordance with the objectives and business needs of the consortium and its members.

Concept notes to 7.1

Consortia are greatly varied. Very few use identical management structures, no two have identical membership bases, and no two have the same goals. What all consortia have in common is a set of basic structures that identify them as consortia.

7.2 The unique and separate entity

It is highly preferable that a consortium be formed as a legal entity, as it will provide many benefits, including a legal liability shield for its members and the ability to open bank accounts and sign contracts and demonstrate a greater commitment to long-term goals.
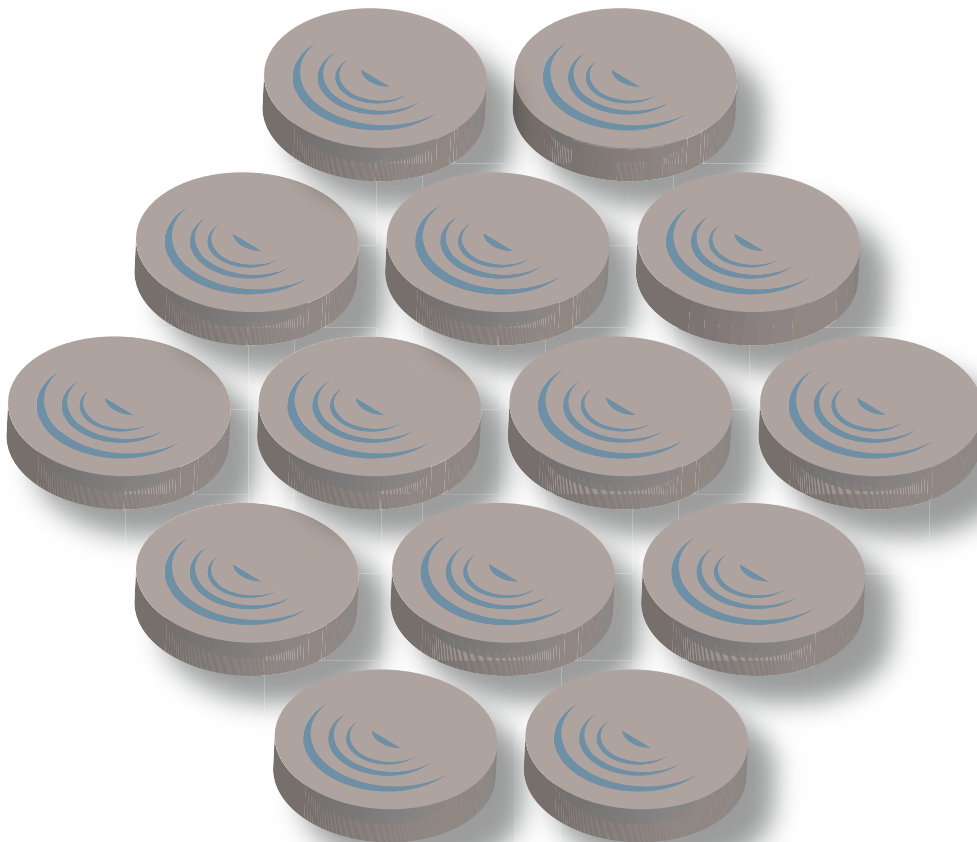
7.3 By-laws/charter/constitution

The consortium should have a set of precise, clearly set out and openly published, transparent procedures that govern (see concept notes) its operations and legal standing. The by-laws should address a minimum set of topics.

Concept notes to 7.2 and 7.3

By-laws should address the following topics:

a) location of the consortium's principal office;

b) the purpose of the consortium;

c) the constitution of the board of directors, including, with regard to members, their:

- number;

- eligibility;

- powers, including meeting notices, voting privileges and voting procedures;

- terms of office and election procedures, including vacancies and removal procedures;

- compensation, if any;

- liability and indemnification status (including availability of director's liability insurance).

d) the class(es) of member entitled to elect or appoint directors;

e) officers (e.g. president, secretary and treasurer of the consortium), including as above for the board;

f) standing committees (generally executive, technical and/or marketing);

g) fiscal responsibilities;

h) corporate reports, records and seal;

i) membership structures, including rights and responsibilities, fees, liability, transference termination issues;

j) meetings;

k) voting procedures and rights.

7.4 Antitrust compliance

The consortium should be properly supervised legally and should adopt appropriate antitrust policies designed to prevent the deliberate or inadvertent violation of antitrust laws.

8 Optimizing standards consortium output

In line with **6.8**, a consortium should consider opportunities for its standards to be adopted by an SDO (e.g. ISO or IEC), since such adoption may result in broader application, particularly by some government users.

Concept notes to 8

The use of a consortium specification in international or public sector trade is an area that many consortia ignore, but it can be a significant issue from a business point of view. Engaging with an SDO may mean that future developments and revisions of the standard would be subject to the rules and procedures of the SDO rather than the consortium.

If the specification is to be used for products or services that are multinational, SDO-developed standards are often more accepted than consortia specifications. This is especially true in emerging economies and where the WTO and WIPO holds currency. If international trade and public sector procurement policies are important, then the consortium should have a mechanism for achieving legitimacy in these areas.

Increased government uptake can often result from the movement of a specification from a consortium to an SDO for development or publication. Where there are two standards that perform the same role and one has been developed by rules set out in an SDO and one via consortium, some governments may adopt the SDO-generated standard, assuming that the consortium standard has not already been more widely adopted in the private sector.

If the primary use of a consortium's output is in products that are dependent on government procurement, then the consortium may be well advised to consider engaging with an SDO for further development of its output.
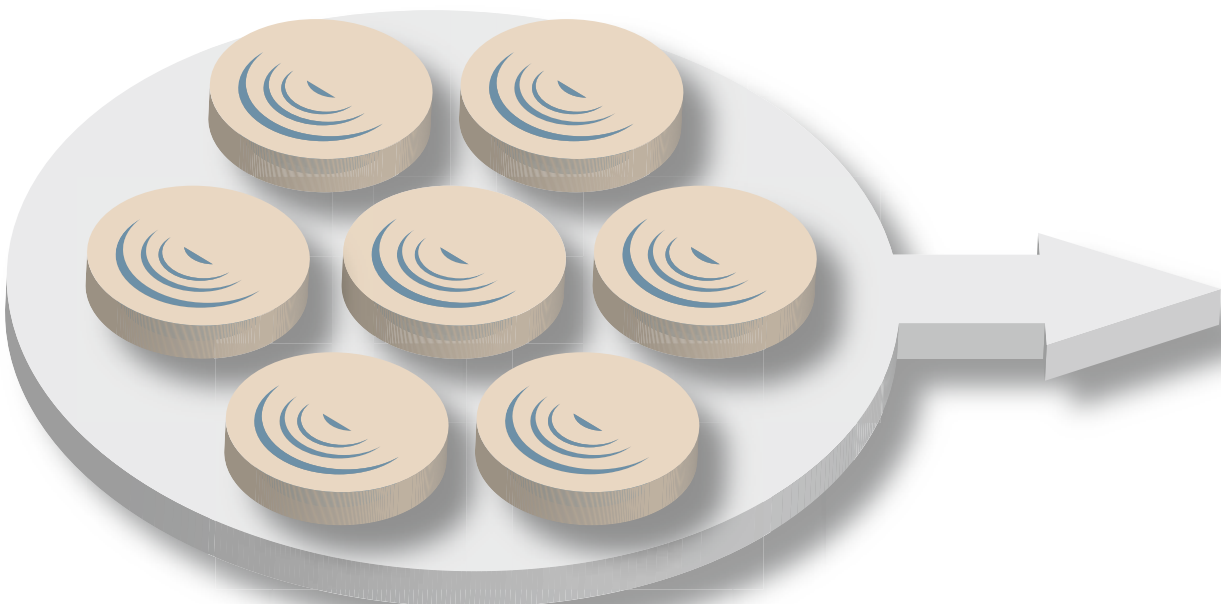
9 Networking

9.1 Liaisons

The consortium should maximize the benefit of its interactions with other groups by undertaking them in the most open manner achievable. In this respect, engaging in events with other groups both inside and outside its sector, as appropriate, can be beneficial in establishing a leadership role within its own sector or topic area.

Concept notes to 9.1

The establishment of liaisons is an important objective for every consortium. There can be many purposes to having a liaison with another organization. Many consortia establish liaisons with one another to share knowledge and to eliminate as much as possible any redundancies of research or output. In other cases, consortia establish liaisons in order to combine research or output, while there are also examples of a group of organizations pledging to work together for interoperability of consortia outputs or other common cause. Liaisons do not need to be formal. Most typically, a short memorandum of understanding (MoU) will be sufficient to detail the relationship between organizations. Some consortia have an established work group dedicated to coordinating their relationships with other organizations. Most consortia that deal heavily with the military or government have very formalized liaisons established with these interests, sometimes in the form of committees or groups, or under MoUs that contemplate specific joint activities.

Whatever their purpose with regard to liaisons, the consortium should:

- have clear procedures in place that govern its relationships with other groups, whether these interactions are formal or informal;

- clearly state, in its MoU with those other groups, which organization's IPR policy should apply in a given situation and how any joint work product will be owned;

- have in place procedures to ensure knowledge and understanding of the requirements associated with formal bodies (e.g. the route available for submitting a consortia standard to SDOs).

9.2 Events and initiatives

The consortium should maximize the benefit of its interactions with other groups by undertaking them in the most open manner achievable. In this respect, engaging in events with other groups both inside and outside its sectors as appropriate, can be beneficial in establishing a leadership role within its own sector or topic area.

Concept notes to 9.2

The more the interaction with other groups in its sector, the larger the target group the consortium's work will reach and the more acceptance its output will have.

Collaboration can take many forms, from co-sponsoring a conference to coordinating joint research activities. Many consortia combine resources with one another when looking at technical problems (a proposition made much easier when it is realized that the membership for many consortia overlaps significantly). The coordination of activities with other groups allows a consortium to focus its resources on producing the output its members require, rather than having to constantly react to the information coming out of other groups. It also helps avoid duplication of effort.

By taking the lead in establishing collaborative activities, a consortium can enhance its reputation in the market sector, gaining appreciation not only from the involved parties but also from the wider industry, from where future members and ideas will come. When multiple groups are included, more perspectives can be aired, and users are presented with clearer views on how a consortium is operated and gain a better idea of what output is being prepared. By establishing itself as a leader in its market sector through the intelligent application of liaisons, cooperation and coordination, a consortium is likely to become a well-respected leader in its sector.

With consistent application in this area, a consortium should be able to take the initiative in publicizing its results and facilitating the migration of its standards to the SDO processes where this is appropriate.
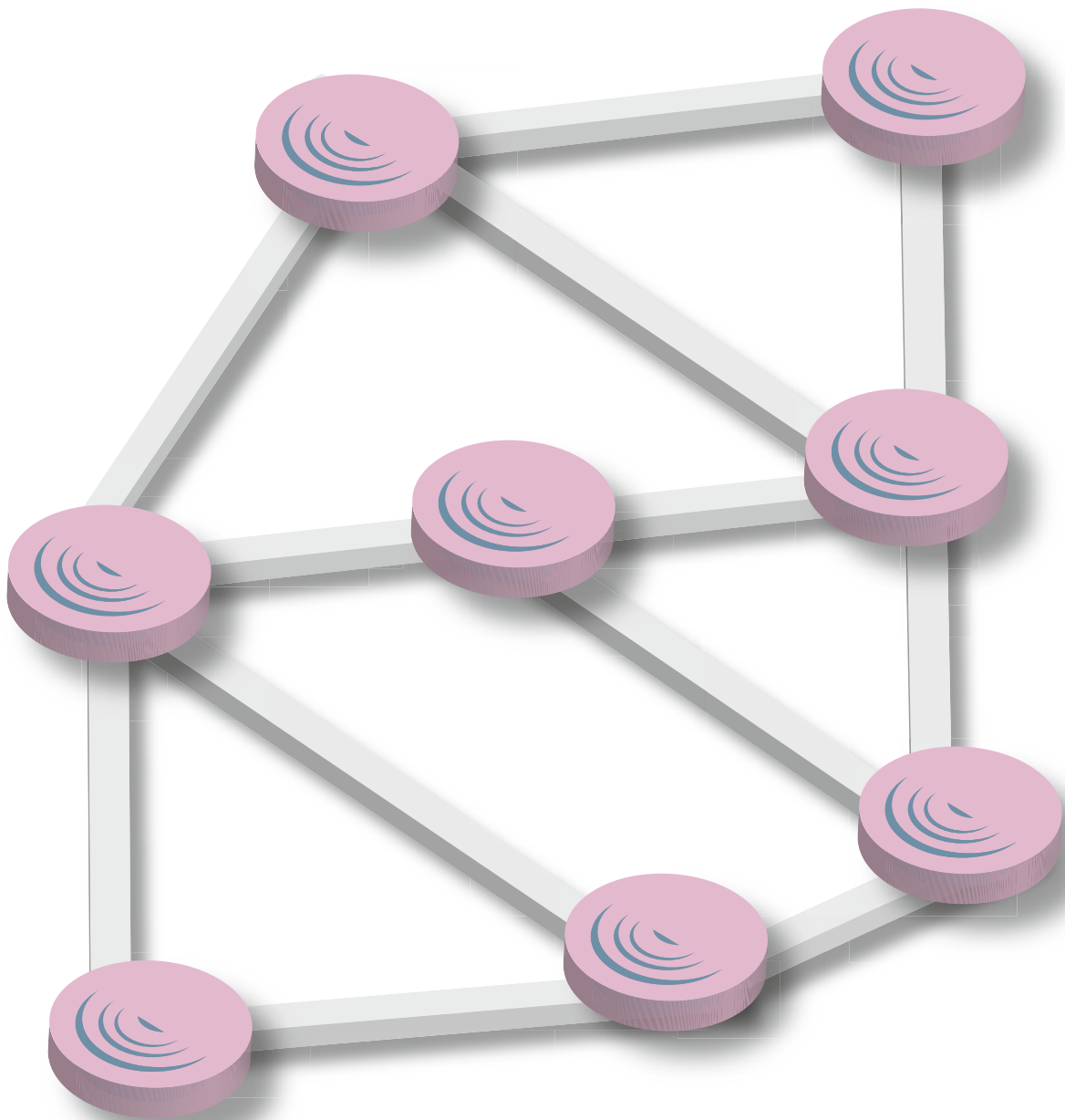
10 Influence

10.1 General

Where a singular focus for consortia activity exists, the consortium should make clear who or what the primary recipient of the consortium's attention is, to prevent disappointment and misunderstandings amongst its members, potential members and their user communities.

Concept notes to 10.1

A consortium's influence is measured by its impact as a whole on the market's purchase and use of technologies. This impact can be assessed in many ways, but it is most important to the consortium members who fund its activities, since market influence is one of the primary goals of any consortium. The influence a consortium wields may be assessed in many different ways, including having influence with governments, within industry and with member companies. There are many factors in evaluating a consortium's influence, and a consortium may seek to influence one group over others. Additionally, the focus of the "influencing strategy" may change over time.

The influence of a consortium can be earned via a proven track record of service and success, or "acquired", generally via short-term publicity tactics and announcements. Though acquired influence can sometimes be transferred into earned influence, eventually a consortium will be judged on how well it functions over time, with a key component of that functionality being how influential the consortium becomes (especially within industry and with governments) and to what extent that influence is perceived to have been earned.

10.2 Government influence

The consortium should maintain clear, precise documentation of any relationships it has with governments and how those relationships function.

The consortium should undertake one or more of the activities below in order to increase its influence with government agencies.

Concept notes to 10.2

The influence a consortium has with governments can be one of the key pillars of its overall influence, depending on the nature of the consortium.

Such relationships can be beneficial to government departments as well as to consortia members.

There are many ways to achieve a position of influence with the various branches of governments. These include:

a) involving government agencies in the membership of a consortium, at a strategic, decision-making level;

b) the establishment of liaisons with government agencies;
NOTE 1 *These tend to be formal rather than informal liaisons, with the consortium fulfilling the role of supplier to the government of some kind of knowledge, technical data, etc.*

c) the establishment of government advisory panels (or similar) and the inclusion of government members on these panels or in virtual work streams (i.e. where physical participation is not necessarily required);

d) the launching of collaborations with government agencies, such as task forces, studies and research collectives;

NOTE 2 *The intent of these activities is to make the goals and output of the consortium known to the government officials who will make policy decisions.*

e) invitations to governments to attend or present speakers at events;

NOTE 3 *The consortium increases its influence with government officials in this way, as well as gaining the opportunity to hear government views on the consortium's output, a key user feedback device.*

f) Having a consortium's output recognized by the procurement policies by governments and other institutions.

While this list is not exhaustive, it is a summary of the methods most commonly employed. Personal relationships remain the best influence available, of course, and these activities provide a good platform upon which to begin establishing such beneficial relationships.

10.3 Industry/sector influence

The consortium should strive to establish a trusted name within its sector or industry.

Concept notes to 10.3

Obtaining influence in industry or in the market sector can be accomplished in a variety of ways:

1. effective use of members. Members are the most effective marketing tools that consortia have. When the members let it be known that a consortium's output has been included in the development of their products, the influence of the consortium increases immensely;

2. the most successful campaigns are those that sell the value of the results of the consortium's work, providing clear connection with member's products;

3. thought leadership centres around distilling innovative ideas and promoting or sharing them as actions that will benefit either the audience at which the consortium is aimed or, in the case of a membership focus, the consortium as an organizational entity and its members. White papers and other research initiatives provide a useful medium for promulgating awareness of insights that can be applied beneficially across an industry, as well as for fulfilling a marketing role by providing a "soapbox" for airing contentious issues. Case studies are also a powerful tool in thought leadership and marketing, as they explain how the output of a consortium helps to solve a business problem for a company;

4. providing speakers and panellists can be highly effective in getting a message out to a new audience and can prove vital in making new contacts in the industry, some of whom might be able to benefit from participation in the consortium. Encouraging such interaction not only increases the profile of a consortium but also provides evidence of a consortium's viability and commitment to interaction with its competitors, both of which are key steps in achieving industry influence;

5. the consortium can provide the speakers either directly from its management team (if it is a managed consortium) or from its membership.

To underpin a programme of successful output and marketing, the consortium should:

• have a balanced membership and strong leadership, and establish better business practice in the field of standardization. The aim should be to establish a virtuous circle of planning, execution and maintenance;

• focus marketing efforts both internally (towards its membership) and externally (towards the industry);

- engage in thought leadership campaigns;

- invest resources in providing leadership in its market sector as a minimum, and in the wider industry if possible;

- be willing to provide speakers and panellists both for its own events and the events of other groups.

10.4 Membership influence

The consortium should allocate time and resources to marketing itself to its membership. It will be found that the possibilities for publicizing and praising the members' contributions are virtually limitless, and every consortium should consider the additional benefit to members reputation and self-esteem of engaging in measures such as those outlined in the concept notes to this clause.

Concept notes to 10.4

It is not uncommon for a vendor or user to have membership of several different consortia, some of which are in direct competition with one another. Such a strategy makes sense for the vendor, who must back a number of organizations in order to ensure that he is not excluded from advantages his competitors might gain from membership in other consortia. One of the primary purposes of a consortium is to undertake activities that will facilitate the success of its members. There are a number of strategies consortia can use to engage and encourage their members:

a) provide a strong and diverse programme of networking events for members;

b) provide a strong and diverse programme devoted to solving the complex technical challenges experienced by members;
NOTE Collective action on a complex problem can be more successful and influential when it provides members with a chance to send technical representatives to network at a technical meeting.

c) engage members of sufficient organizational seniority who possess a sufficient degree of authority within their own organization to enable them to speak on behalf of their company;
NOTE Typically, this is at least senior director level, sometimes even VP or above (CIO, CTO, CMO or COO). This level of member is able to provide resources and will be more closely tied to the consortium's efforts.

d) provide discounts to members;
NOTE Discounts can take the form of a reduction in fees for conferences, output or sponsorship. The key is to make the member feel that there is real advantage to taking part in the consortium and its successes.

e) promote the members by highlighting and recognizing the contributions of members in as broad a manner as possible.

NOTE Websites provide a great space for highlighting a member, as do interviews and press releases. Awards ceremonies and conference sponsorship publicize the importance of member contributions and provide a solid basis for members to justify continued involvement with the consortium within their own organization.

Annex A (informative) – Resources

Some external resources dealing with consortia and other standardization issues are listed below:

General information

BSI Group: http://www.bsigroup.com

Forming and Managing an SSO, http://www.consortiuminfo.org/essentialguide/index.php#part2

OpenStandards.net: http://www.openstandards.net

Participating in an SSO, http://www.consortiuminfo.org/essentialguide/index.php#part1

The Essential Guide to Consortia, http://www.consortiuminfo.org/essentialguide

Lists of consortia

One of the most comprehensive lists of consortia may be found at:

http://www.consortiuminfo.org/links

A Eurocentric list of many ICT standards organizations may be found at:

http://www.cen.eu/cen/Sectors/Sectors/ISSS/Consortia/Pages/default.aspx

The above information is reproduced in PAS 98 Part II, Annex B.

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BSI – British Standards Institution

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