

## SECTION 2. STANDARDS CRITERIA

From the foregoing, it appears that there is a common constellation of principles generally used to determine the suitability of proposed specifications, for broader implementation in the service of public policy goals. Each of the following requirements appears in some manner in each of the principal systems described above:

- *Primary deliverables:*
  - *Participatory openness*, in the sense that anyone can participate within reasonable restrictions.
    - Facilitates balanced input, retards the exclusion of stakeholders or use cases. Some standards bodies have explicit "balance" composition rules. Others believe that better results come from proactive recruiting, and level-playing-field rules that make participation attractive for minority stakeholders, than from quota approaches.
    - Some degree of participation fees have generally been found appropriate, although it's possible that a "rich players club" with too high an entry barrier might be found inappropriately exclusionary.
  - *Fairness and due process* rules to enforce balanced decisions and consensus methodology.
    - At a minimum, published rules and an absence of a track record of ignoring them seem essential.
    - Usually includes enforcement mechanisms reasonably assuring that the rules are followed. This can be difficult to measure or assess in the case of small or volunteer-run groups.
    - In practice, it appears that some agencies run spotchecks on this issue by seeking and evaluating assertions that significant points of view were excluded.
  - *Transparency*, or openness in the sense of public access to inputs and results.
    - Some charges for published standards, to pass along the reasonable costs of development generally have been found appropriate, particularly in industries with relatively large commercial players. There is some pushback on this principle from the "open data" movement, on the grounds that public policies which are amount to regulatory requirements should be freely available, to enable review and compliance.
    - The degree of availability of draft material (as opposed to final products) varies widely among consortia at present. Their justifications for securing draft information range from preserving it as a member-only benefit, to keeping it distinct from final work ready for implementation, to assertions that technical debates may be more robust if not conducted transparently.
    - There is a related but difficult-to-measure problem with groups who have transparency rules in theory (such as posting and archiving practices, and meeting notice rules), but tend not to honor them in practice.

- 86 • *Function-oriented description*, as opposed to specifying design or product-specific  
87 characteristics.
  - 88 • This requirement obviously retards lock-in or tying to a single product or  
89 methodology other than the specification itself.
  - 90 • Description of the proposed functions also allows a review process to assess the  
91 market demand, and the ecosystem niche or role which the reviewed method  
92 may fill – thus supplying guidance on the appropriateness of its inclusion.
  - 93 • Descriptions by performance feature (as opposed to "do it like this exemplar  
94 product") tend to give better guidance to developers of new conforming products,  
95 and are more readily adaptable into useful conformance clauses for testing  
96 purposes. Examples of function-oriented descriptions usually can be found in the  
97 scope statements of open standards projects, where intended outcomes and  
98 boundaries are described in detail, but proprietary processes generally are not  
99 referenced.
- 100 • *Requirements derived from the primary deliverables:*
  - 101 • *Minimum public review procedures* creating genuine opportunities for, and  
102 consideration of, feedback from non-participants.
    - 103 • Parties who do not wish to invest the time or licensure necessary to actively  
104 contribute to a standard still may represent stakeholders whose views should be  
105 considered.
    - 106 • Several of the above bodies explicitly require minimum durations for public  
107 review, or replies or acknowledgments of public comments received, or both.
  - 108 • *Stable hosting arrangements* likely to support the intended access and permanence of  
109 the outputs and relevant archival material.
    - 110 • The access and openness deliverables noted above are of little value if artifacts  
111 cannot be found and relied upon, over time, after their issuance. Even in the  
112 relatively fast – moving ICT sector, it appears that the lifecycle of use for data  
113 standards may be measured in decades, while the hype cycle that supports their  
114 dot.org activity may be limited to years, or even months.
    - 115 • This archival imperative may apply to draft inputs and metadata as well as final  
116 approved outputs.
    - 117 • To some degree, provisions for monitoring and enforcing the maintenance phase  
118 of published standards – managing errata, maintaining their integrity via copyright  
119 management, and maintaining conformance or interoperability criteria – also may  
120 be relevant. The need for these functions may vary widely depending on the  
121 nature of the standard.
  - 122 • *Intellectual property rules* with sufficient certainty, access and enforcement.
    - 123 • The same principles of clearly-stated rules, and reliable enforcement, noted for  
124 process rules, above, also should apply here, so that stakeholders who adopt or  
125 contribute to a project can do so with reasonable knowledge of the known rights  
126 consequences.

- Outputs that are only available on extraordinarily-limited license terms may not serve the goals of a broadly implementable standard. Some governments take this issue further, and express a preference for royalty-free, freely-available or open source standards in order to support wide implementation and access.
- Standards whose development allows contributors to attach complex conditions, of the outset (hostage-taking at the design stage), may not develop freely in response to feedback from other stakeholders.
- Overly-restrictive licenses required to implement a final standard, especially those which require negotiation or surveillance by competitors (hostage-taking at the implementation stage), may impede use of the standard or related technology, as is implied in the SEP cases.

### SECTION 3. SPECIAL REQUIREMENTS FOR EXPERIMENTAL PROGRAMS

One weakness of the foregoing traditional analysis is that it treats all standards as if they don't really exist until they are finally issued. In practice, modifications and new technologies are coming along constantly. At any given time, there always are worthy projects in development that have not yet fully brought themselves into an accredited standards process. At the same time, of course, there also are private projects that either have no intent of becoming open, or publicly available; or that present themselves as "standards" without ever satisfying the openness needs suitable to public policy use. Accordingly, any identity ecosystem, and its implementers, must make choices about the adoption of methods that might later lead to open standards, or might turn out to be an unsupported dead end, or a proprietary path under the control of a single vendor or stakeholder group.

A balanced approach that allows for flexibility and innovation may need to establish some general principles for working appropriately with new, incomplete proposed methodologies for handling and structuring information. Here are some draft principles for further consideration:

While long-term, large-scale deployments and dependencies require the assurances and qualities sought by the NTTAA and the National Strategy, any developing ecosystem also will have a number of pilot projects, small implementations, and experiments. These may not yet be the basis for a mandate or wide roll-out, so the use of not-yet-standardized methods may be perfectly appropriate. Among the foregoing (draft) common criteria, the requirements of:

- *Participatory openness,*
- *Fairness and due process, and*
- *Stable hosting arrangements.*

probably are premature. and reasonably might not be applied to experimental pre-standardization projects. The other four criteria, plus one additional special one, should still be applied even to the assessment of early-stage efforts:

- *Transparency to the public;* Transparency often still is needed, even if to a lesser degree, so that the outputs of a proposed methodology can be evaluated by a ecosystem participants. As an example, note that the NSTIC funded pilot projects have been required by NIST to make public interim reports to the IDESG. The

171 projects are not obligated to produce all results publicly. However, some some degree  
172 of public information and reporting puts the IDESG and stakeholders in a position to  
173 assess whether to consider incorporating a candidate technology into broader  
174 systems; and whether open standardization or sourcing of that technology would be  
175 an appropriate next goal.

- 176 • *Function-oriented method descriptions:* The ability to understand a project's methods,  
177 free of specific proprietary product or method use, significantly assists implementers in  
178 replicating the experiment's success with different tools. That view into a project more  
179 readily lends itself to future standardization and broad use , than would a statement  
180 like "we used the Foo Inc. product."
- 181 • *Minimum public review procedures:* Similarly, external projects that seek preliminary  
182 endorsement or use in the ecosystem should be subject to exposure for meaningful  
183 feedback, as the cost of that interim recognition. Without that mechanism, there would  
184 be little opportunity or motivation for those emerging methods to socialize into, and  
185 collaborate with, other technologies so as to become sufficiently interoperable.
- 186 • *Intellectual property rules:* To some degree, the eventual license availability of a  
187 developing technology should be clear from a project's launch. Often the license terms  
188 applicable to a final standard are dictated by the practices used, and contributions,  
189 permitted during its formation. For that reason, any experimental method that seeks to  
190 be embraced as part of a large and widely available ecosystem should be able, *at its*  
191 *initiation*, to demonstrate adequate open licensing and availability will be possible, on  
192 terms are reasonable in light of its intended use. In that way the ecosystem can be  
193 reasonably assured that its resources are doing more than providing public support to  
194 private for-profit product development. For that reason, [a] / [some kind of] statement  
195 of intent or declaration about future IPR availability [should be required] / [may be  
196 appropriate] at a very early stage. (For example, if a particular functional domain was  
197 expected to be directly accessible to consumers without cost, it might be an  
198 appropriate constraint, imposed by the IDESG endorsement process, that projects to  
199 develop standards needed to implement that function be scoped not to bear royalties.)
- 200 • *Prospective commitment to open standardization:* If an identity ecology is asked to  
201 give early recognition or support to an emerging method which is not yet standardized  
202 -- as contemplated by the applicable public policy -- an IDESG endorsement process  
203 should [assess whether to] require a commitment to completing its standardization, as  
204 a condition of the initial support or endorsement. A variety of approaches are possible,  
205 including (a) seeking aspirational but unenforceable statements of intent; (b) making  
206 some kind of support contingent on progress; or (c) taking binding contributions on a  
207 delayed basis for later use, subject to updating.

## 208 209 **SECTION 4. IMPLEMENTATION**

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211 The IDESG workplan assumes that various projects and methods will be brought forward for  
212 endorsement or approval, and that the Standards Committee will be asked for its feedback as  
213 a part of that process. A primary goal of that inquiry is confirmation that the goals of the  
214 National Strategy and IDESG regarding use of open standards are being met.  
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216 This section assumes that the Standards Committee will use a set of criteria, like those  
217 described above, in that evaluation. Thus, if they were to be used as described above, the  
218 committee would use some process to evaluate the following matters for each candidate  
219 standard or method:  
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221 *(This chart summarizes the criteria described in the prior sections.)*  
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For established projects:

- *Participatory openness*
- *Fairness and due process*
- *Stable hosting arrangements*
- *Transparency to the public*
- *Function-oriented method descriptions*
- *Minimum public review procedures*
- *Adequate intellectual property rules and licensing*

For experimental or pilot-scale projects:

- *Limited transparency to the public*
- *Function-oriented method descriptions*
- *Minimum public review procedures*
- *Adequate intellectual property rules and licensing*
- *Commitment to open standardization*

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225 After consideration of multiple evaluation process options, the Committee recommends that  
226 the foregoing criteria be applied to relevant ICT standards using a structured feedback  
227 process, hosted but not dictated solely by the Standards Committee. When a methodology or  
228 project is proposed for endorsement or approval by the IDESG, for use within its identity  
229 ecosystem, the specifications and standards used in that proposal will be evaluated against  
230 the criteria in this paper, as part of the proposal's evaluation, as follows:  
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232 (i) Early in the life of the proposal, the subject methodology or project should be examined  
233 for the inclusion of ICT specifications, and those which are included should be explicitly  
234 announced as potential standards on which IDESG seeks feedback according to the criteria;  
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236 (ii) Each of those specifications should be made the subject of an open opportunity and  
237 meeting to review the application of the criteria; and  
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239 (iii) The Standards Committee shall prepare a summary report integrating received  
240 feedback on application of the criteria, to that methodology or project, to be approved by the  
241 committee and forwarded to the Plenary prior to its approval action, so as to inform the  
242 Plenary about the extent to which the proposal conforms to open standardization expectations  
243 (as represented by the criteria).  
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245 See the "Standards Adoption Timeline" draft document.  
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