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**A proposed methodology and infrastructure for
standards development and implementation
within a national statistical agency**

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Outline of presentation

- Background to standards development in Stats SA
- Rationale for standards
- Generic methodology for standards development
 - Standards life cycle
- Methodology for a specific standard
- The enabling standards infrastructure

Background

- Statistics South Africa (Stats SA)
 - South Africa's national statistical agency
 - Vision: *The preferred supplier of quality statistics*
- Data Management and Information Delivery Project (DMID)
 - Centralization and standardization
 - Metadata is the main driver in this project
- CSIR is assisting Stats SA in terms of an MoU

Background

- Standards are considered broadly
 - Standards, specifications, classifications, definitions, policies, procedures, guidelines, etc
 - Across all of Stats SA
 - Line functions, rather than support functions or underlying technologies
 - Stats SA uses many standards
- Building blocks that allow for integration

Rationale for standards

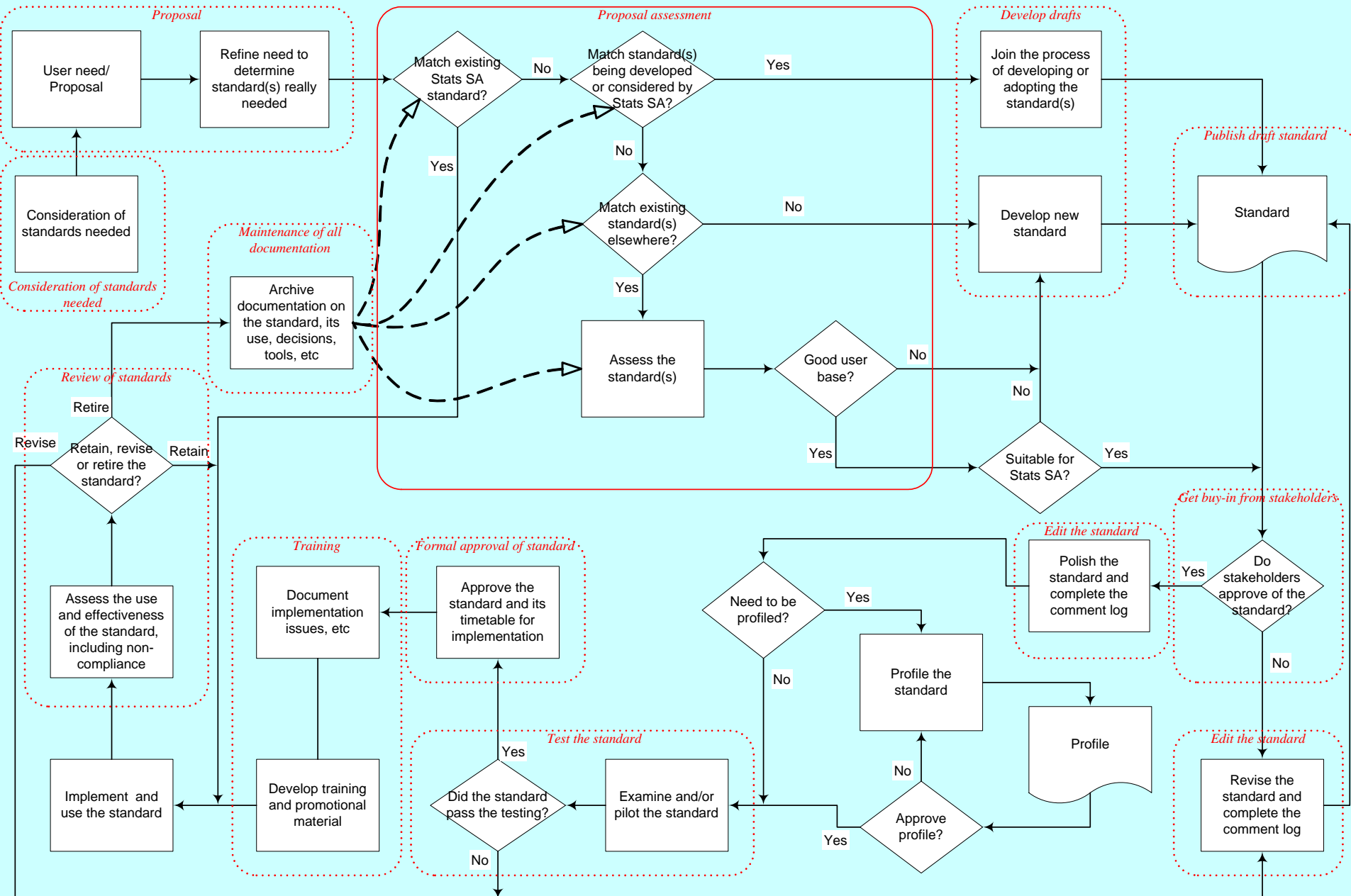
- Standards are explicitly part of
 - The Statistics Act, Act Number 6 of 1999
 - Stats SA's overall strategy
- Enable statistical data to be comparable
 - Necessary precondition for analysis, data conflation, quality assessment, and methodological evaluation
- Enhanced and consistent access to authoritative and reliable statistical data
- Facilitate retaining old data sets
 - Especially the ability to still read them!

Rationale for standards

- Stats SA's use of standards should be a role model
 - For others in the National Statistics System (NSS)
 - Should be possible to duplicate such use
- Stats SA should be active in international standards community
 - Learn about standards and their development
 - Contribute to standards development
 - Ensure standards cater for SA's needs
- Lead to better quality products

Generic methodology for standards development

- Intention: appropriate processes are followed to ensure standards meet users' needs and get "buy-in"
- Aims at ensuring harmonization of standards
 - Selecting, developing, implementing and refining standards
- Life cycle of standards in Stats SA
 - 14 parts



Standards life cycle [1]

- Proposal
 - Encapsulates the need (why, where, when, etc)
 - Sufficient detail to evaluate, but not too onerous
- Proposal assessment
 - Urgency, complexity, existing candidates, etc
 - Might need to refine the proposal
- Develop drafts (according to specific methodology)
- Publish formally a draft standard
 - Publish only a completed standard

Standards life cycle [2]

- Get buy-in from stakeholders
 - Review, comments and approval
 - Arrange workshops for stakeholders
- Edit the standard
 - Consolidate comments into a comment log
 - Revise standard and document responses
- Test the standard
 - No matter how well the standard is written, there will be problems when it is actually used!
 - Examine and/or pilot before formal approval

Standards life cycle [3]

- Formal approval of the standard
 - Once concensus has been achieved
 - Also approve the timetable for implementation
- Training
 - Courses, training and promotional material, etc
- Submission of standard outside Stats SA
 - NSS, South Africa, internationally, etc
- Review standard periodically
 - Retain (unchanged), revise or retire (supereceded, etc)

Standards life cycle [4]

- Maintenance of all documentation
 - Standards have long lives (hopefully!)
 - Standard itself, published drafts, comment logs, minutes, referenced documents, etc
- Overruling a standard
 - Should be avoided
 - Indicates a failure of the standard or its timetable
- Consideration of new standards needed
 - Prioritised summary of standards needed

Methodology for any specific standard

- Aims at:
 - Assuring the technical merits of the standard
 - Providing guidelines for project teams
 - Which consist of domain experts from stakeholders
- Each standard addresses an identified need
 - Should be developed as quickly as possible
 - Need to ensure experts on project focus on the standard
- Project team could consist of only one expert
- Standard could be developed in less than one day

The enabling standards infrastructure

- Permanent infrastructure
 - Chief Standards Officer (CSO)
 - Standards support and standards policing
 - Standards Steering Committee
 - Oversight, providing feedback, promoting standards use
 - Standards Secretariat
 - Supports the CSO and standards development
 - Standards Experts
 - Facilitate standards development

Permanent infrastructure

- While they might have domain expertise
 - Primary role is to facilitate development, rather than develop the standards themselves
- Responsibilities include
 - Admin support for standards development
 - Promoting proper use of standards
 - Maintaining standards development timetable
 - Version control of standards, documents, etc
 - Archiving, maintaining and backup documentation, etc

Temporary infrastructure [1]

- Established as needed for each standard
 - Proposal Assessment Panel
 - Preparatory work by permanent infrastructure
 - Steering Committee for a Standard
 - Oversee progress
 - Project Team
 - Domain experts and possibly standards experts
 - Project Leader
 - Detailed technical knowledge of domain
 - Must be able to lead a team

Temporary infrastructure [2]

- Established as needed for each standard
 - Editor
 - Technical knowledge and written language skills
 - Editing Committee
 - Resolve comments on standards
 - Editing Committee Chair
 - Senior manager from key stakeholder
 - Review Team (for a standard)
 - Decide whether to retain, revise or retire

Temporary infrastructure [3]

- **Overrule Audit Commission**
 - Independent group to review any overrule
 - Why was it necessary?
 - What can be done to prevent future overrules?
- **Study Group**
 - Balance visionary thinking with practical realities
- **Champion for a Standard**
 - Senior manager who will promote the standard

Thank you!

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