

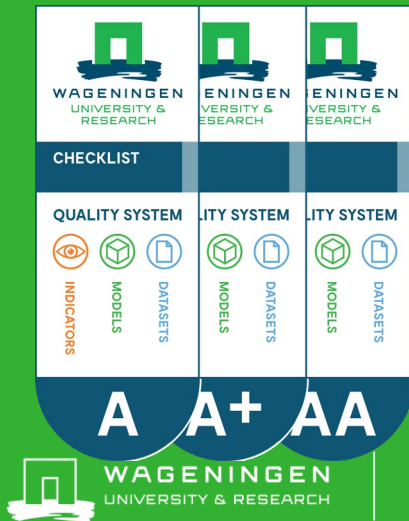
Workshop: What should we ask from data and models used for policy support?



The Kwaliteitsstatus A, A+ and AA checklists

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1st Data Steward @WUR network meeting, November 8 2018



Assignment



- Name the key components that assure the quality of a data/model according to you

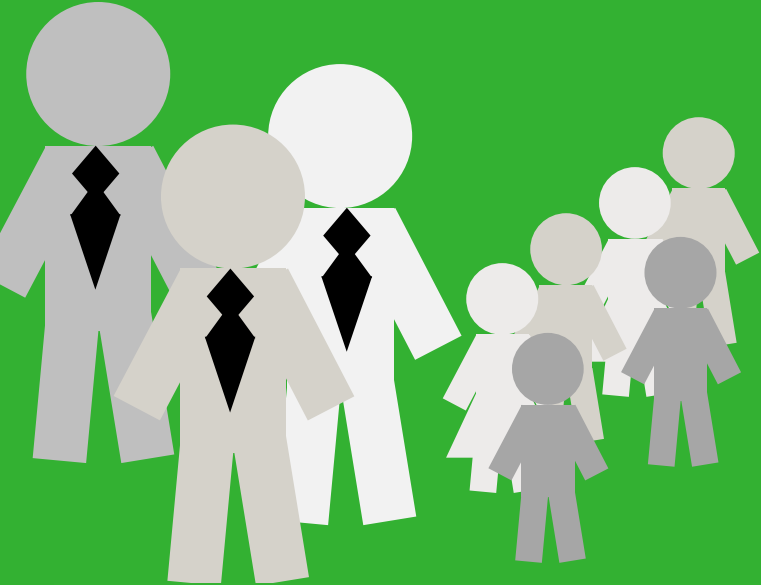
Aim WOT/NM



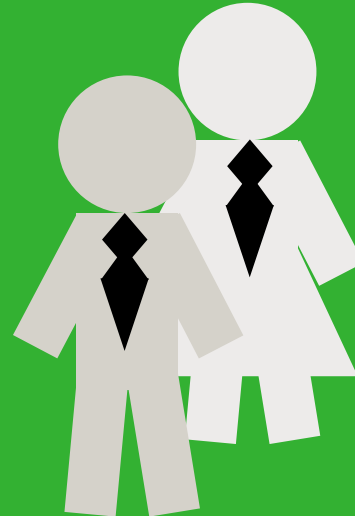
- minimise the risks of:
 - public discussions on the quality of data used and models applied for a specific application
 - inefficiencies in the policy advice process due to shortcomings in modelling .



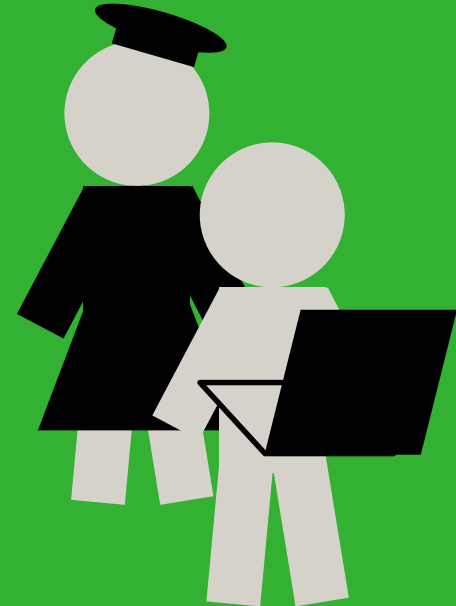
Stakeholders



Policy, Stakeholders and General Public



Management



Science & Technology



WAGENINGEN
UNIVERSITY & RESEARCH



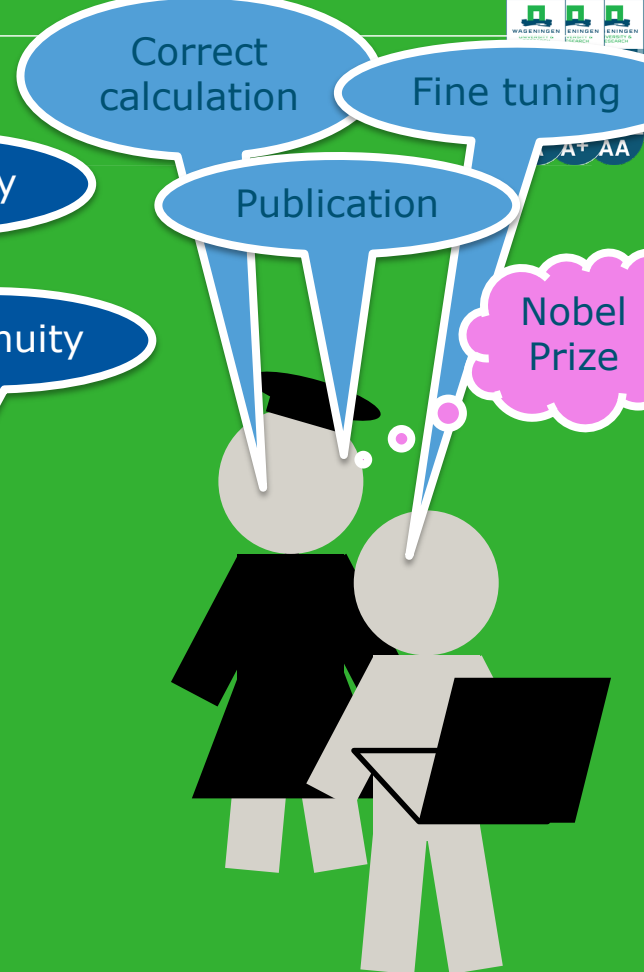
Quality for whom



Policy, Stakeholders and General Public



Management



Science & Technology

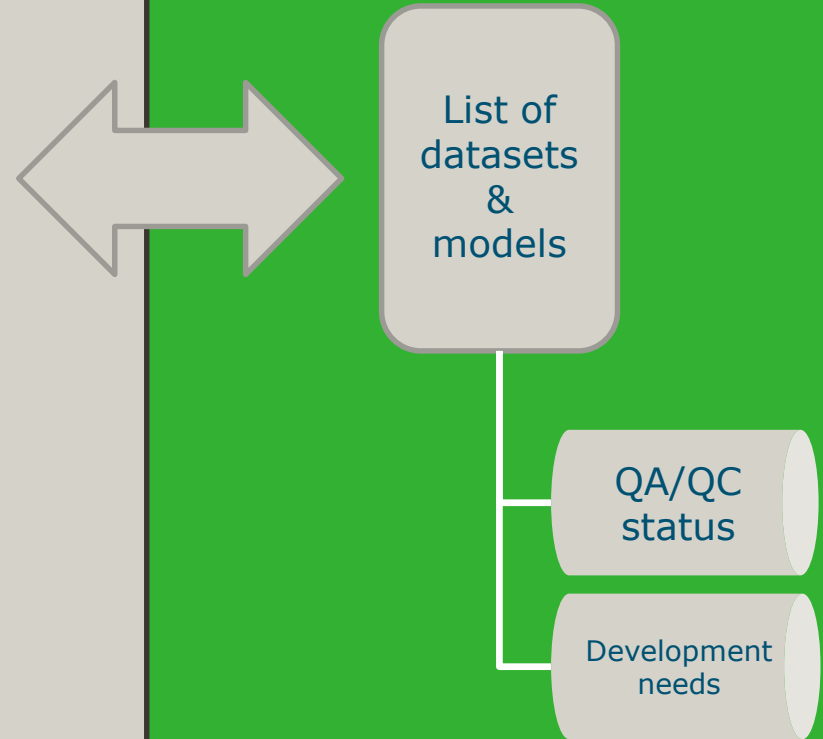


QA/QC topics



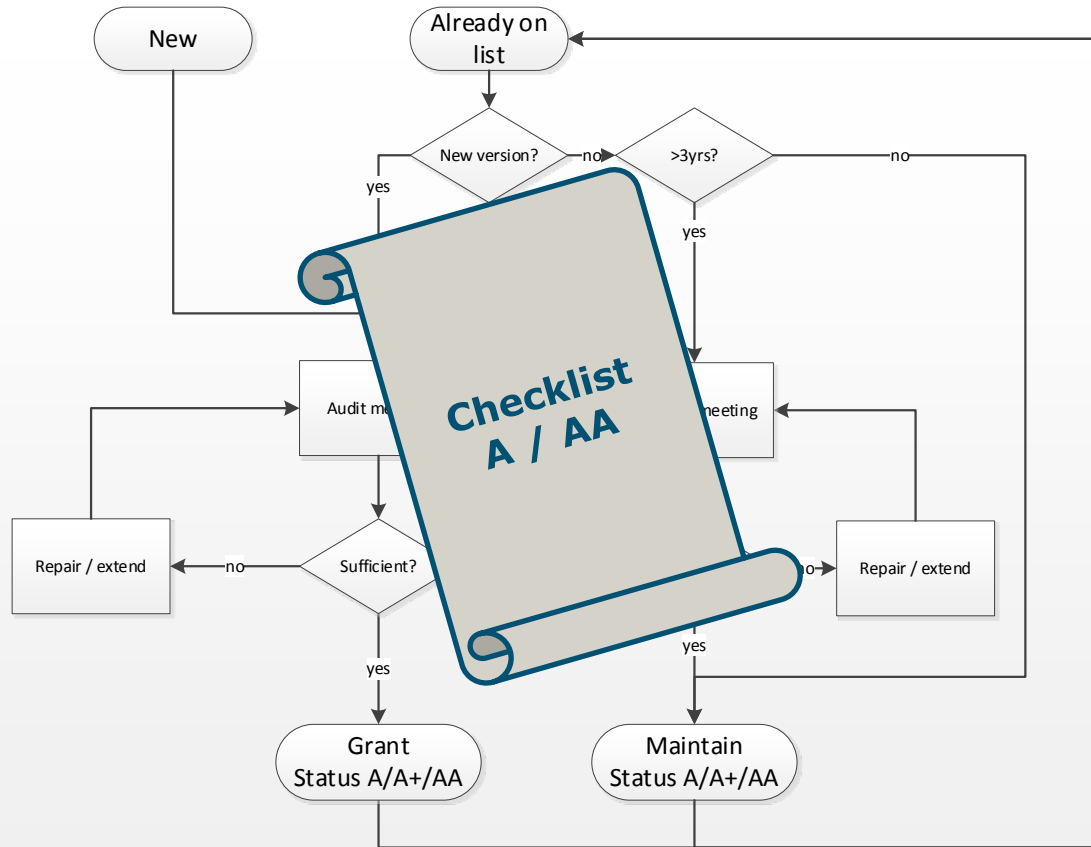
- **Credibility – Saliency – Legitimicity**
 - **Transparent on results** such that C-S-L can be judged
- **Continuity – Efficiency – Development - Liability – Cashflow**
 - **Alert organisation** for future operation & development
- **Correctness – Traceability – Scientific Embedding**
 - **Precise on methods** such that peers understand

How do we do this



How do we do this

Audit process

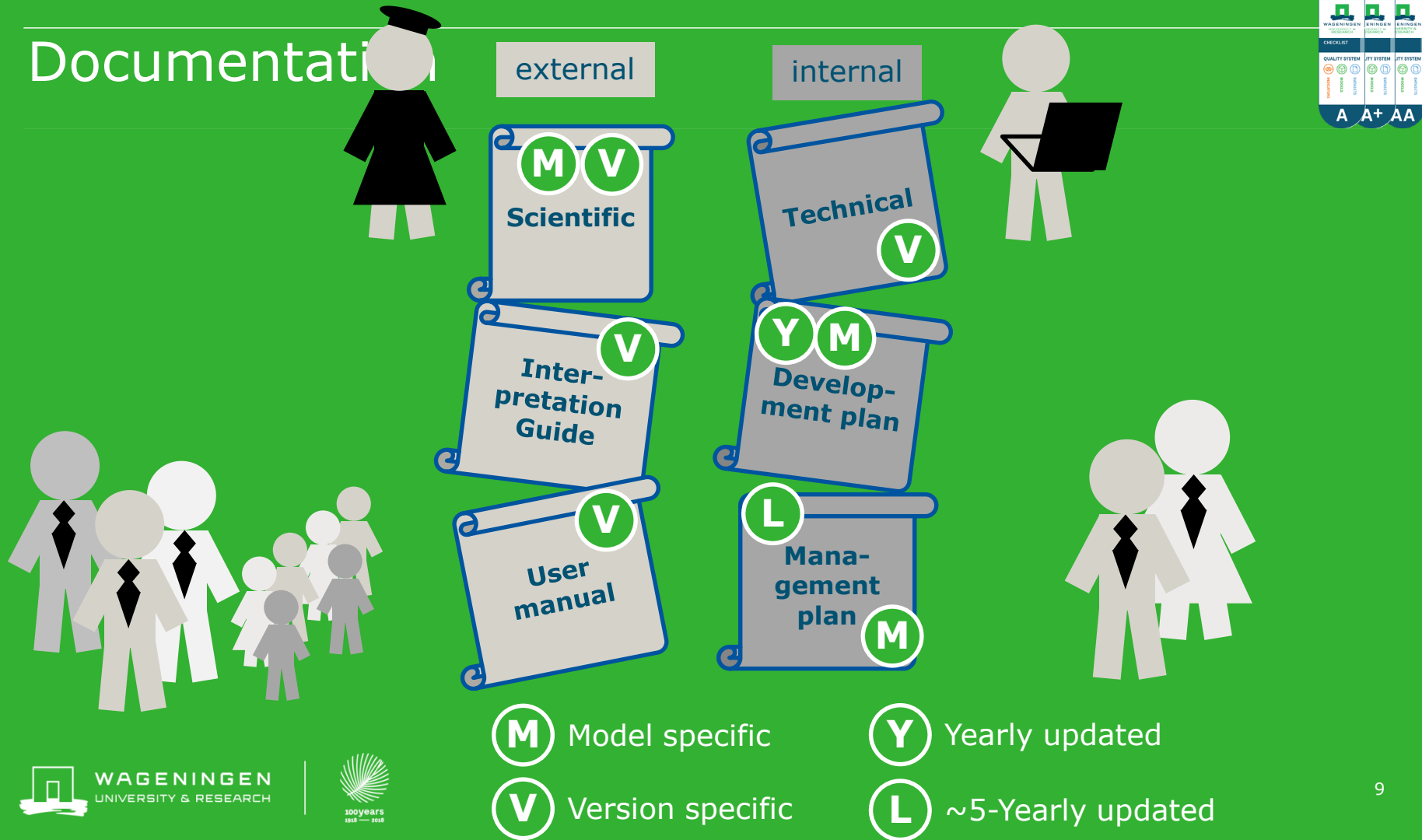


Audit on documentation that is 'future-proof' & 'findable'

- Publications
- Reports
- Manuals
- Website (frozen & offline)
- Wiki (frozen & offline)
- Help-file

A	minimal quality
A+	A + selected AA
AA	desired quality

Documentation



What to ask?

What does it mean?

Will you include this submodel?

Did you test?

Who will follow up if it fails?

Does it work in theory?

Will it work in the future?

Does it work in my backyard?

Why?

Are you uncertain?

Where can I read that?

How did you do this?

Can I press the red button?

How did you date?

What is the uncertainty?

Do I need to do anything extra?

Starting points



■ Cover

- Science & Technology
- Development & Organisation
- Interpretation & Use

■ Flexible / Minimal forcing

- implied schemes -- PDCA
- formats
- standards

■ Space for improvement

- Initial development vs consolidation

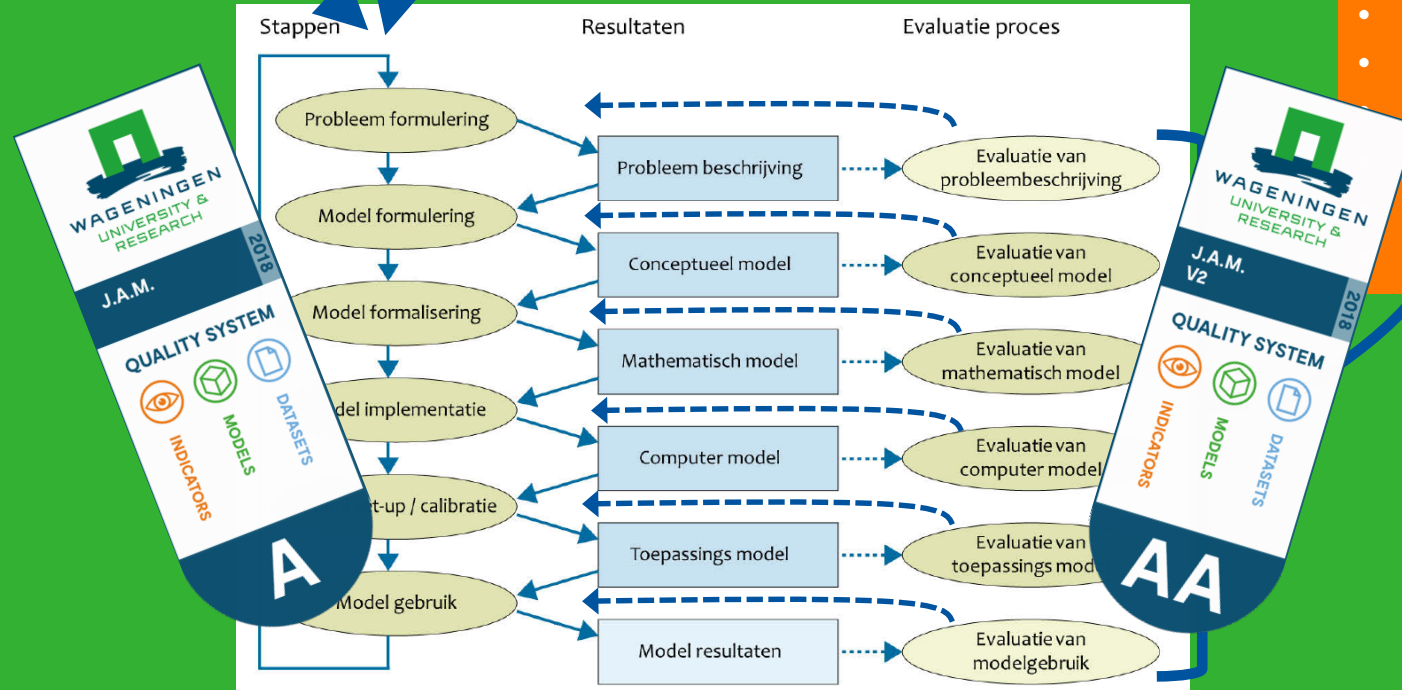
Consolidation

External
Question

Internal Vision

- Priorities
- Reputation
- Anticipation

Consolidation
Planned
Cyclic
Incremental



checklist

- 3 themes
- 7 topics
- 22 statements
- operationalisations (A/AA)

Science & Technology

ST.1 The model is described

- 1.1 There is a general description of the model
- 1.2 The conceptual and mathematical model are documented

ST.2 The implementation of the model into a computer program is documented

- 2.1 The model implementation is documented
- 2.2 The technical environment is documented
- 2.3 The computer model is tested for correct calculation

ST.3 The parameters, variables, inputs to and output of the model are described

- 3.1 The parameters and variables of the model are documented
- 3.2 Calibration of parameters is described
- 3.3 The input files and the origin of input data are described
- 3.4 The output files are described

ST.4 The functioning of the model is evaluated

- 4.1 A sensitivity analysis is performed
- 4.2 An uncertainty analysis is performed
- 4.3 The model is validated
- 4.4 The use of the model is monitored
- 4.5 There is a general assessment of model quality

Development & Organisation

DO.5 The development of the model is planned

- 5.1 There is a development plan
- 5.2 A version control system is in place

DO.6 The organisation around the model is planned

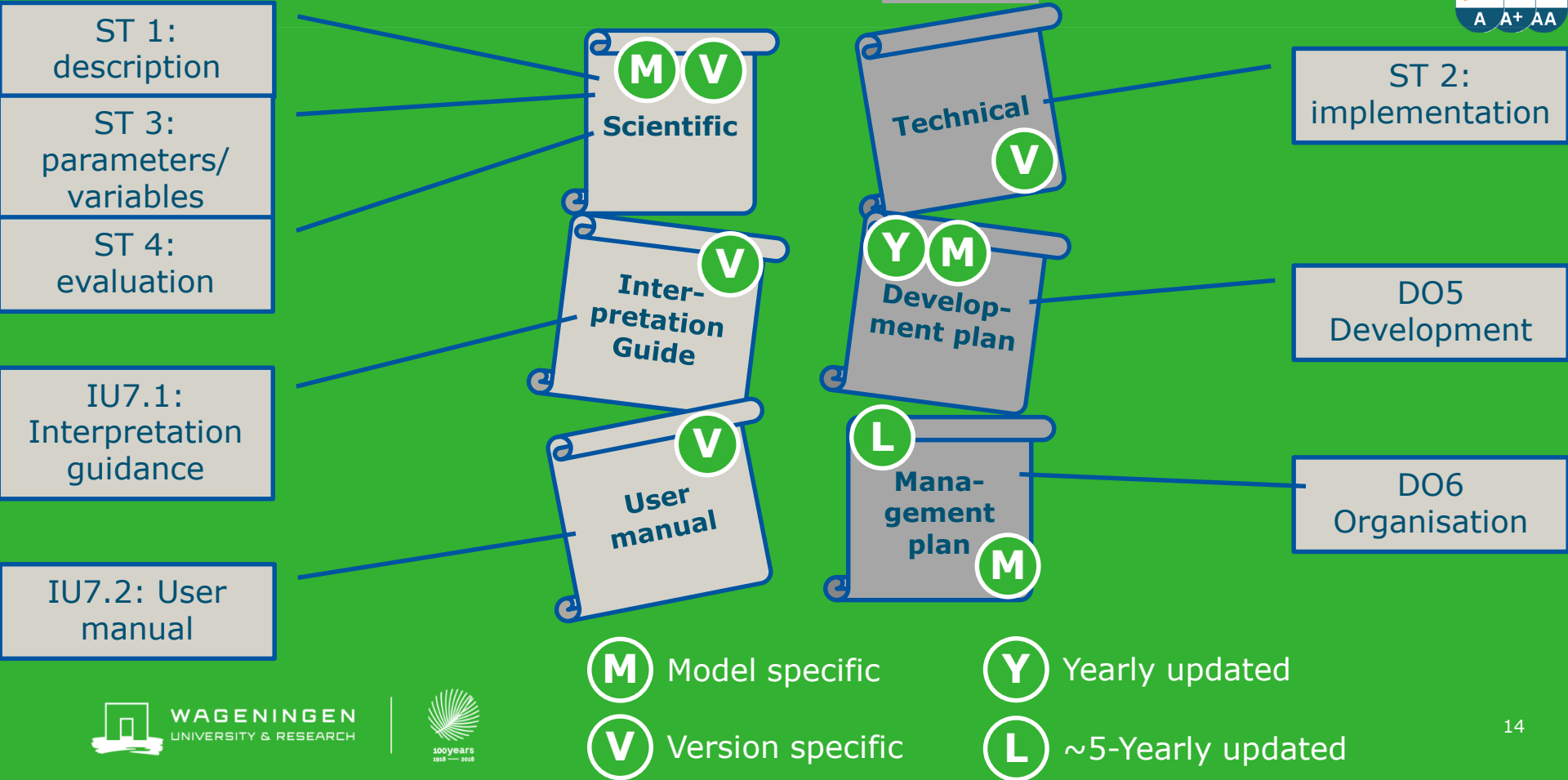
- 6.1 The metadata of the model is available
- 6.2 There is a management plan
- 6.3 Data dependencies are discussed
- 6.4 External use is organised

Interpretation & Use

IU.7 User documentation is provided

- 7.1 Interpretation guidance is provided
- 7.2 There is a user manual

Documentation



Thank you



Assignment



- Name the key components that assure the quality of a data/model according to you