

Start.

- ⊙ Choose deformation-sliding factor
- ⊙ Impose 1961–1990 mean SMB

Glacier evolution
to steady state

**Steady-
state glacier
(1990)**

Transient climate
(from E-OBS)

**Modelled
glacier at
inventory
date (2003)**

Modify deformation-sliding factor
(minimisation based on outcome of
previous attempts)

End.

Model is calibrated.
Transient geometry used to initialise
glacier evolution
(starting from inventory date)

Modify climatic conditions:
perturbation on the
1961–1990 mean SMB

Is the volume
matched at
inventory date?

No

Yes

Is the length
matched at the
inventory date?

Yes

No