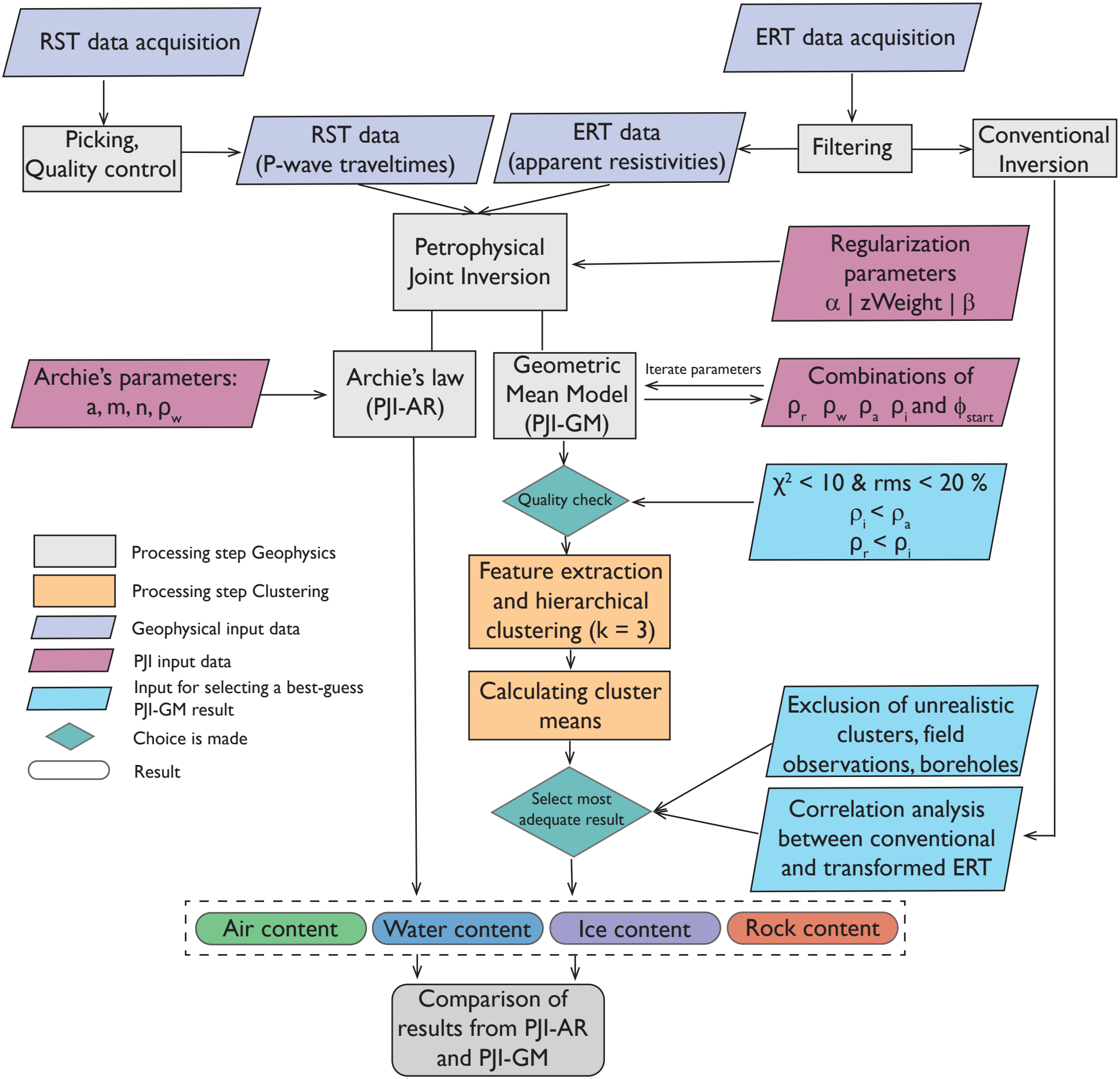
RST data acquisition
ERT data acquisition
Picking, Quality control
RST data (P-wave traveltimes)
ERT data (apparent resistivities)
Filtering
Conventional Inversion
Petrophysical Joint Inversion
Regularization parameters α | zWeight | β
Archie's parameters: a, m, n, ρw
Archie's law (PJI-AR)
Geometric Mean Model (PJI-GM)
Iterate parameters
Combinations of ρr ρw ρa ρi and ϕstart
Quality check
χ² < 10 & rms < 20 %
ρi < ρa
ρr < ρi
Feature extraction and hierarchical clustering (k = 3)
Calculating cluster means
Exclusion of unrealistic clusters, field observations, boreholes
Select most adequate result
Correlation analysis between conventional and transformed ERT
Air content
Water content
Ice content
Rock content
Comparison of results from PJI-AR and PJI-GM
Processing step Geophysics
Processing step Clustering
Geophysical input data
PJI input data
Input for selecting a best-guess PJI-GM result
Choice is made
Result