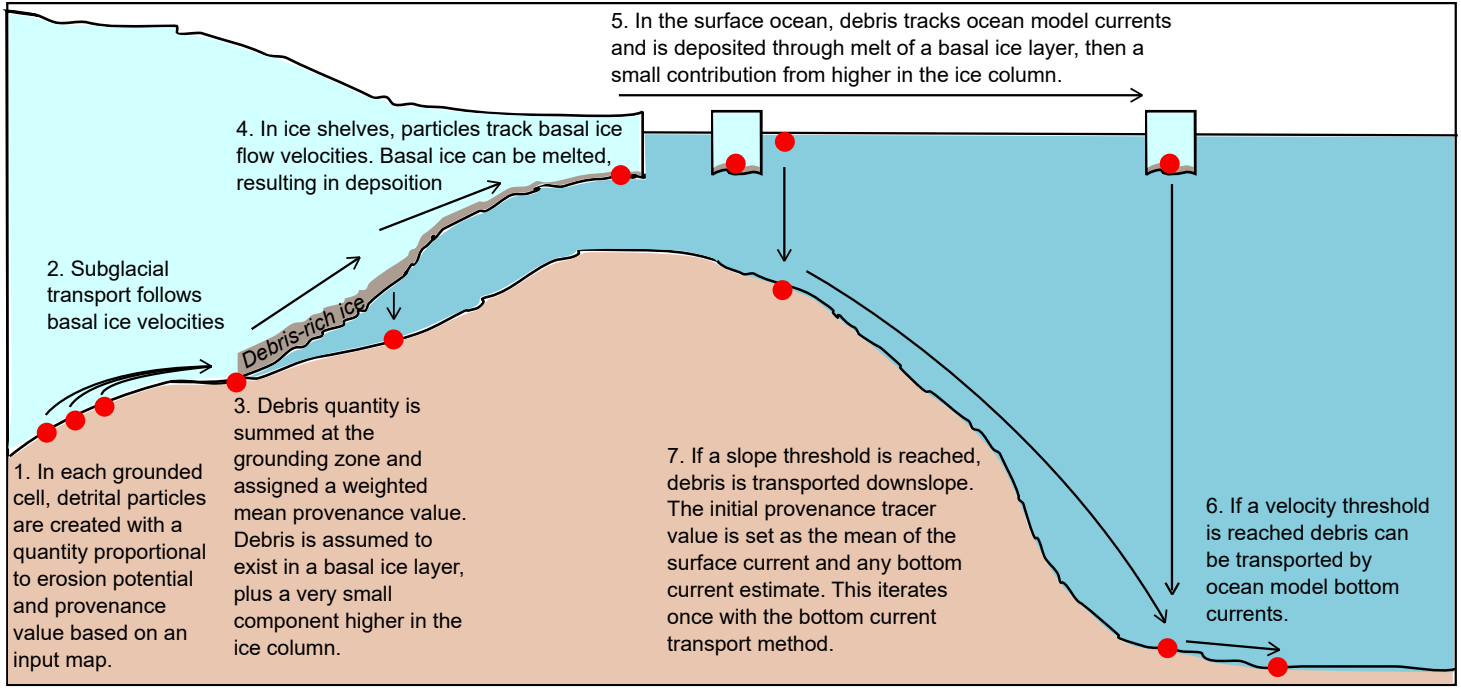
5. In the surface ocean, debris tracks ocean model currents and is deposited through melt of a basal ice layer, then a small contribution from higher in the ice column.
4. In ice shelves, particles track basal ice flow velocities. Basal ice can be melted, resulting in depsoition
2. Subglacial transport follows basal ice velocities
Debris-rich ice
3. Debris quantity is summed at the grounding zone and assigned a weighted mean provenance value. Debris is assumed to exist in a basal ice layer, plus a very small component higher in the ice column.
1. In each grounded cell, detrital particles are created with a quantity proportional to erosion potential and provenance value based on an input map.
7. If a slope threshold is reached, debris is transported downslope. The initial provenance tracer value is set as the mean of the surface current and any bottom current estimate. This iterates once with the bottom current transport method.
6. If a velocity threshold is reached debris can be transported by ocean model bottom currents.