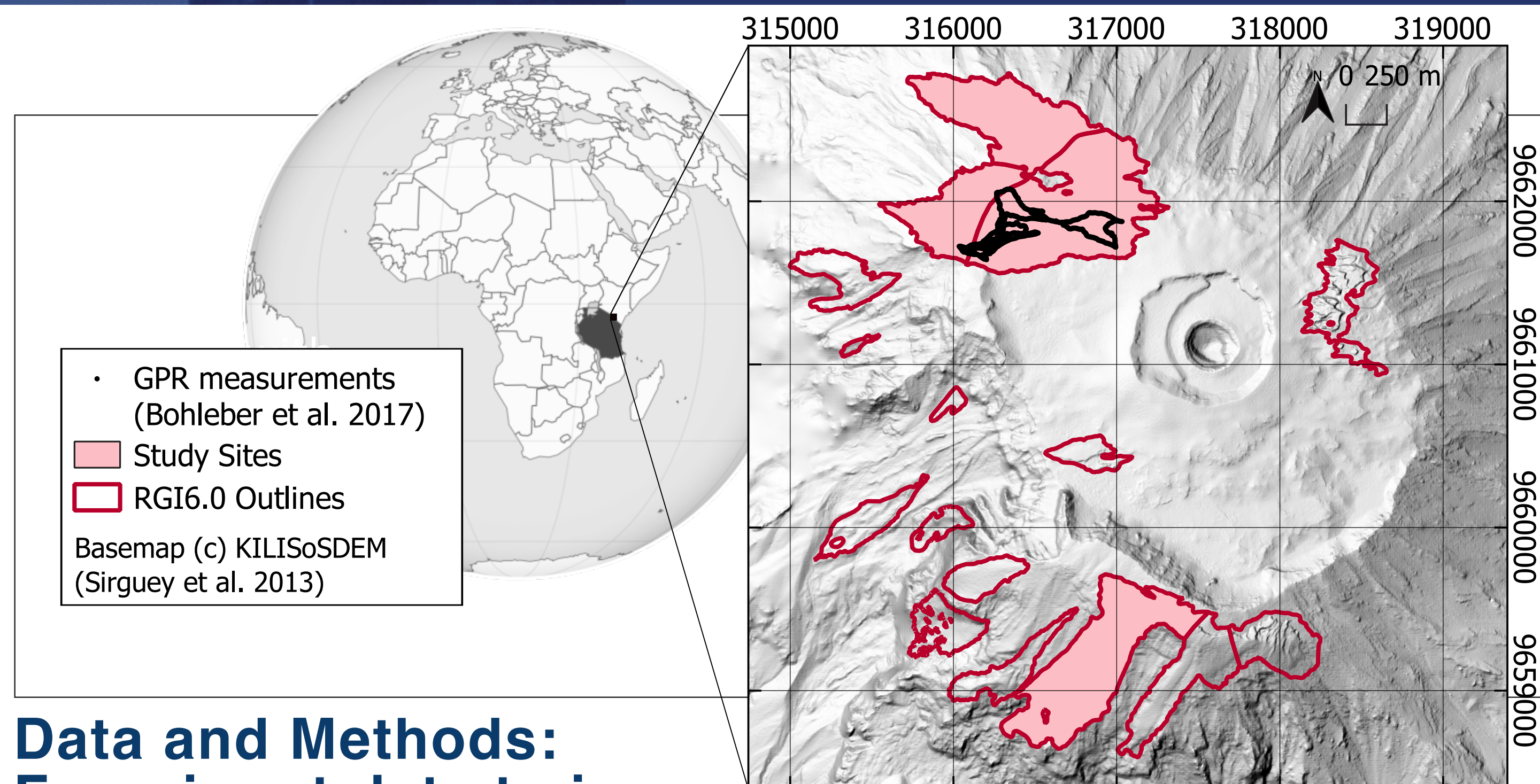


The state of Kersten Glacier and the Northern Icefield on Mt. Kilimanjaro

C. Stadelmann, J.J. Fürst, T. Seehaus, P. Sirguey, N. Cullen, T. Mölg and M. Braun

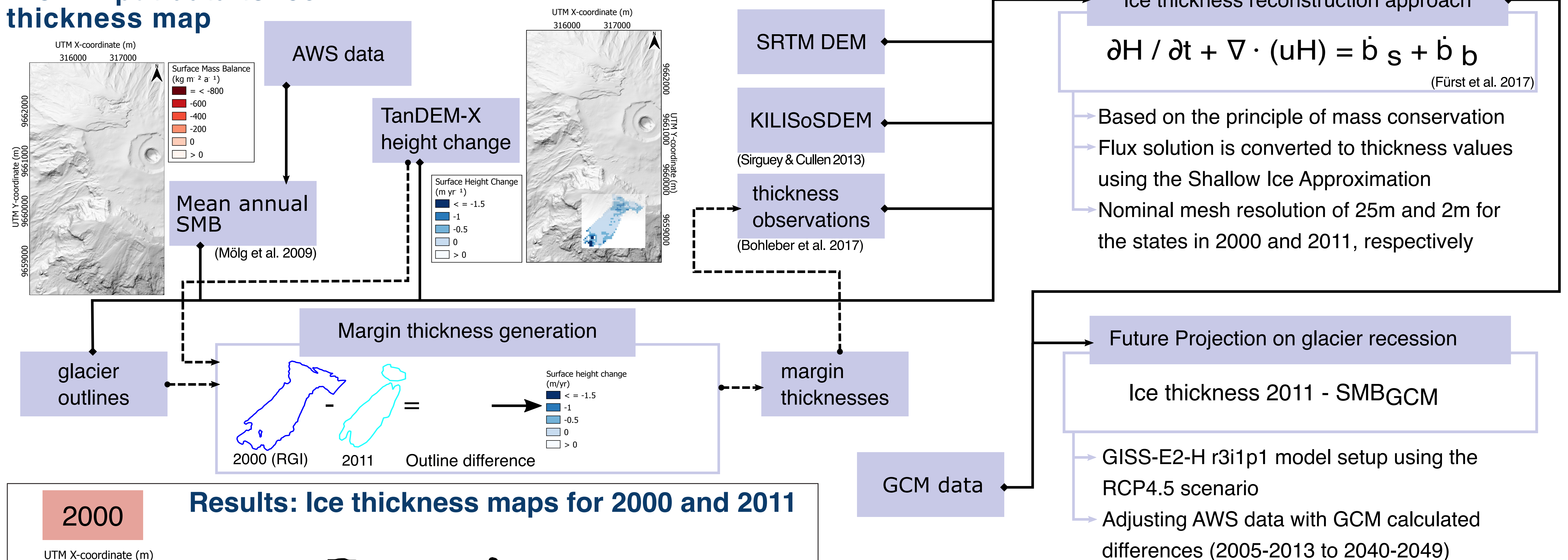


Introduction: Glaciers on Kilimanjaro

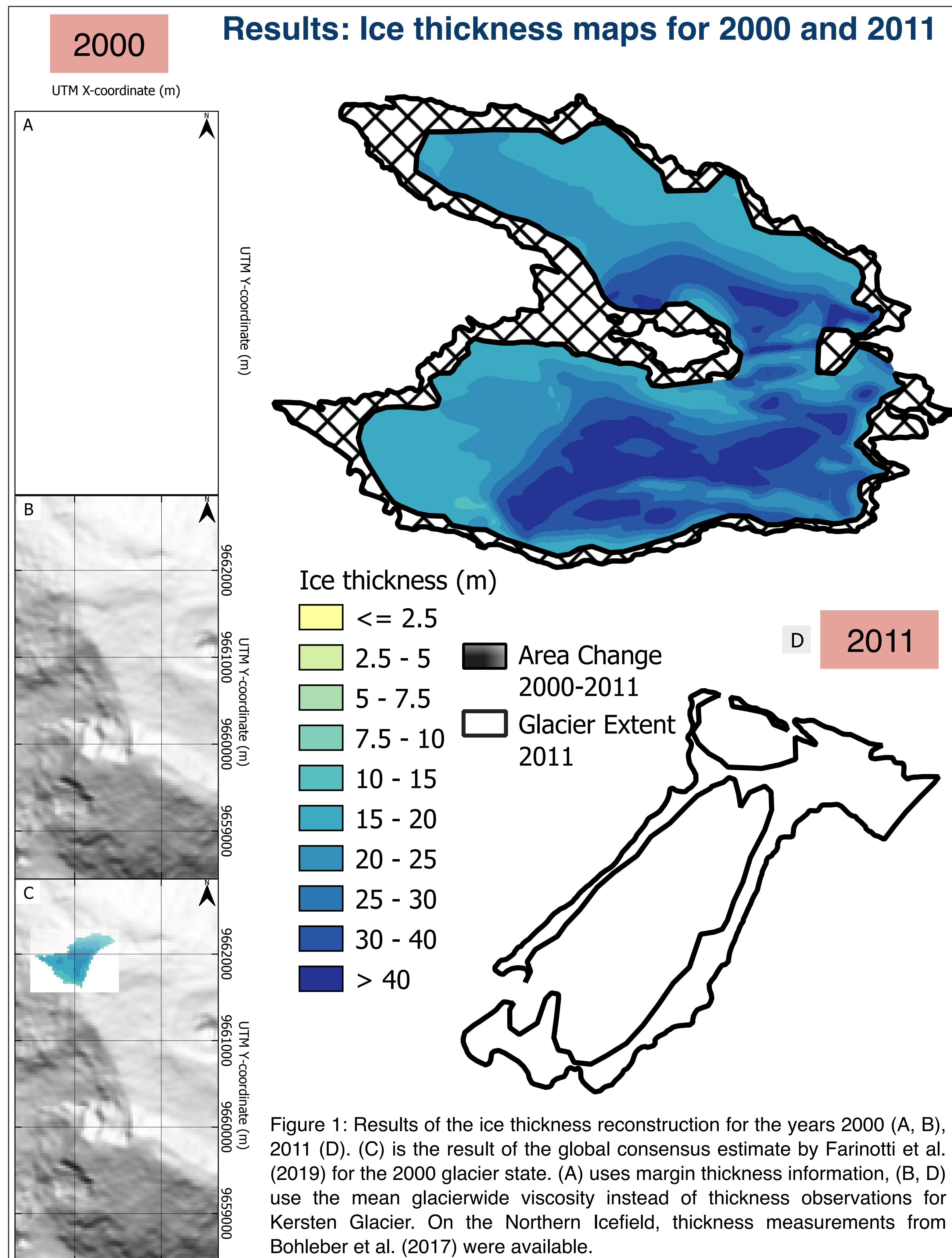
The glaciers on Kilimanjaro are unique indicators for climatic changes in the tropical mid-troposphere of Africa. Glaciers in the tropics have shown a severe retreat since the Last Glacial Maximum and the glaciers on Mt. Kilimanjaro are no exception, with an 85% reduction in glacier area from 1912 to 2013. This history of severe glacier area loss raises concerns about an imminent future disappearance. Yet, the remaining ice volume is not well known.

On this poster, we present well constrained thickness maps for the two largest remaining ice bodies on Mt. Kilimanjaro and a first estimate of their state in 2049.

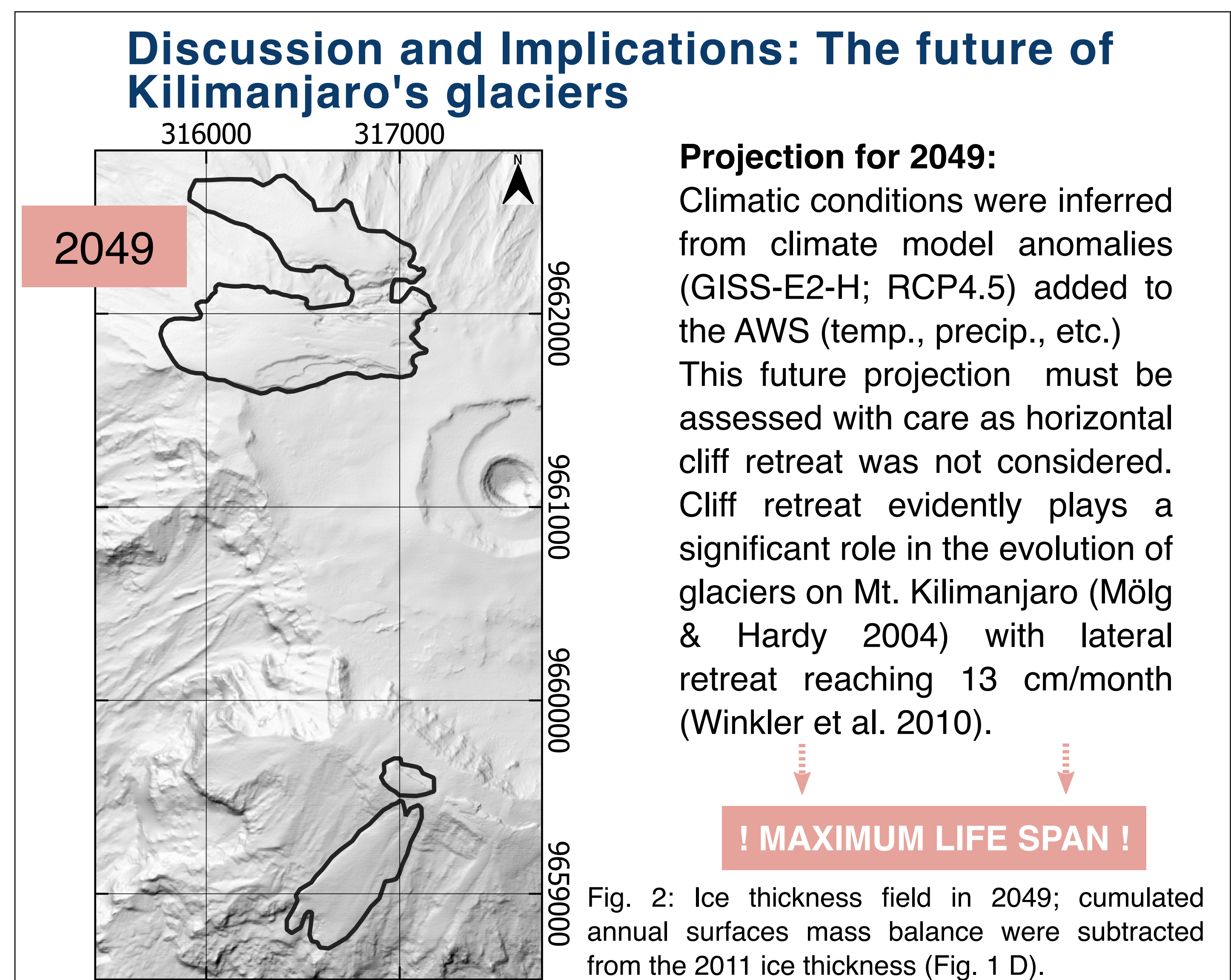
Data and Methods: From input data to ice thickness map



Results: Ice thickness maps for 2000 and 2011



Discussion and Implications: The future of Kilimanjaro's glaciers



TAKE-HOME MESSAGE

- Results from our locally tuned reconstruction match estimates from other studies (Bohleber et al. 2017, Farinotti et al. 2019)
- Margin thickness information can be used to create an ice thickness estimate without actual thickness observations
- Our future projection shows an already severe glacier retreat without the consideration of the lateral cliff retreat

Correspondence/Contact: Catrin Stadelmann, catrin.stadelmann@fau.de