

# Glacier monitoring in Switzerland: Challenges and opportunities

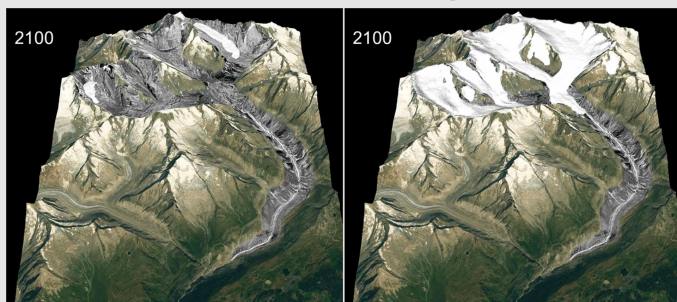
Matthias Huss, Andreas Bauder and Andreas Linsbauer (GLAMOS)

## Glaciers as the ambassadors of climate change



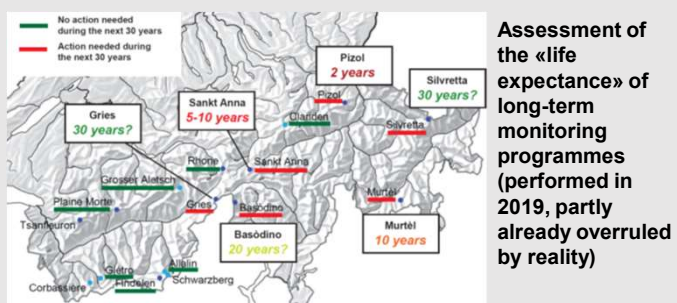
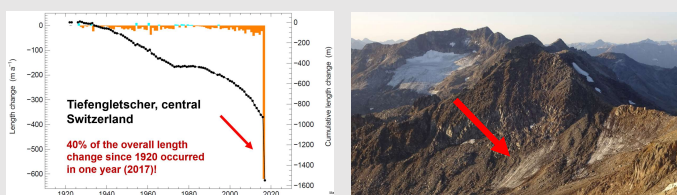
*Glaciers impressively visualize climate change and are therefore highly important in climate change communication*

## Maintaining monitoring under climate change



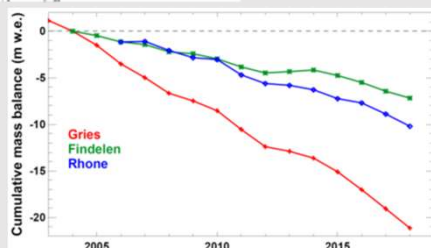
No climate change mitigation  
(RCP8.5)

Strong climate change mitigation  
(RCP2.6)

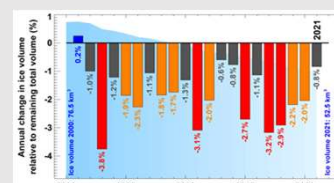


A sufficient overlap with old series is crucial when shifting to new monitoring sites!

(year-to-year variability is consistent, but the rate of long-term thinning differs)

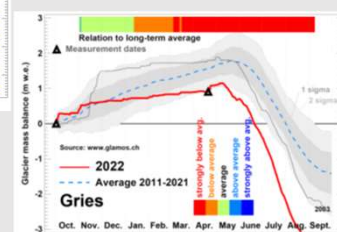


## Observing glacier change

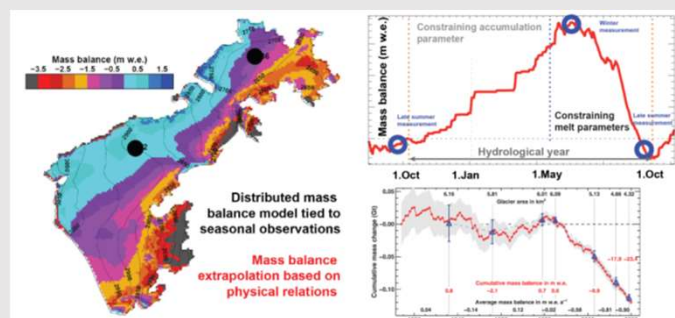


Major and acceleration ice volume losses during last decades

Extreme and unprecedented glacier melting in 2022



## Combine in-situ measurements, remote sensing and modelling



A combination of different observational techniques (e.g. in-situ and remote sensing) with modelling is crucial to increase the richness of the data

## Data rescue and homogenization

Data is the backbone of the monitoring! Invest into the rescue and documentation of old measurements.

→ Increase coverage of monitoring series (in time and space)

