



Photos Thomas Stucki / SLF



Photo SLF

Snow-Cover Measurements in Switzerland

Challenges of an Operational, Monitoring, and Research Network

Charles Fierz, WSL / SLF Davos

HarmoSnow field campaign, Erzurum, Turkey, 1-3 March 2016





1936: Study plot Weissfluhjoch, 2540 m a.s.l.

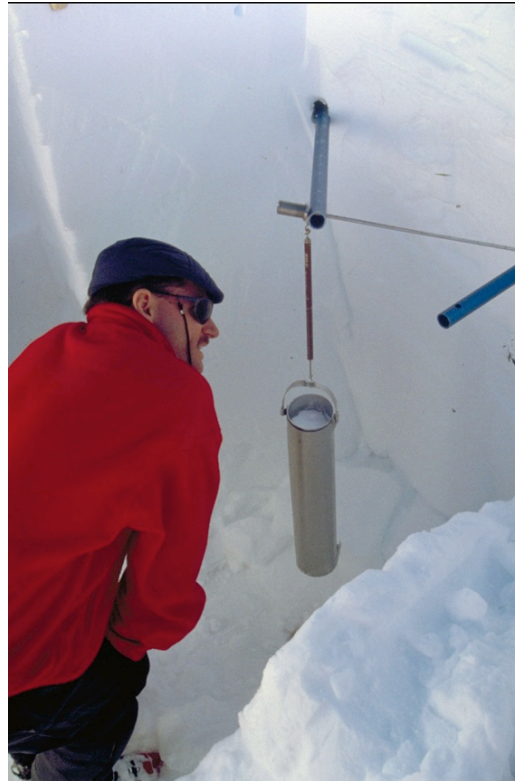
Snow depth ...



Snow profiles ...



... SWE ...

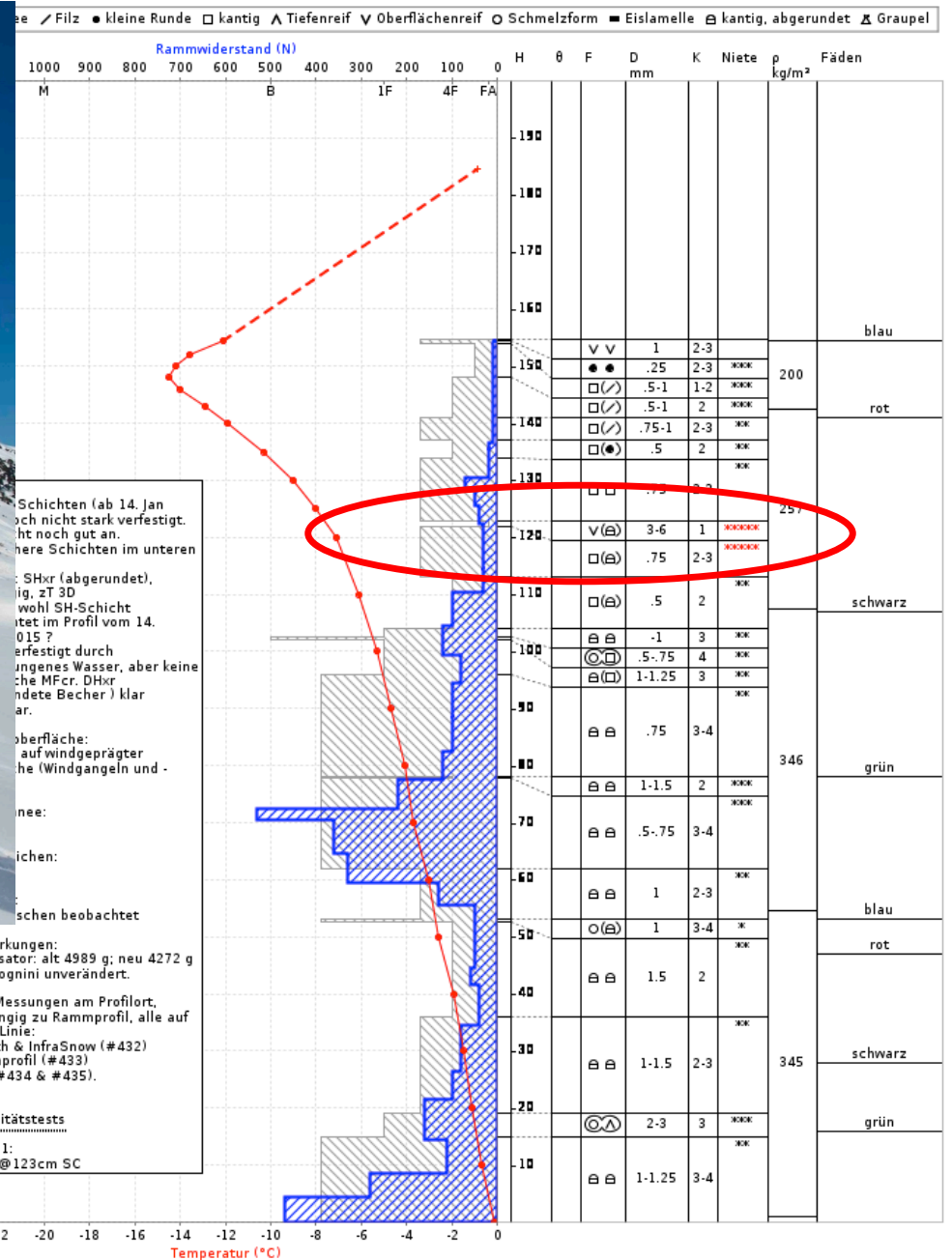
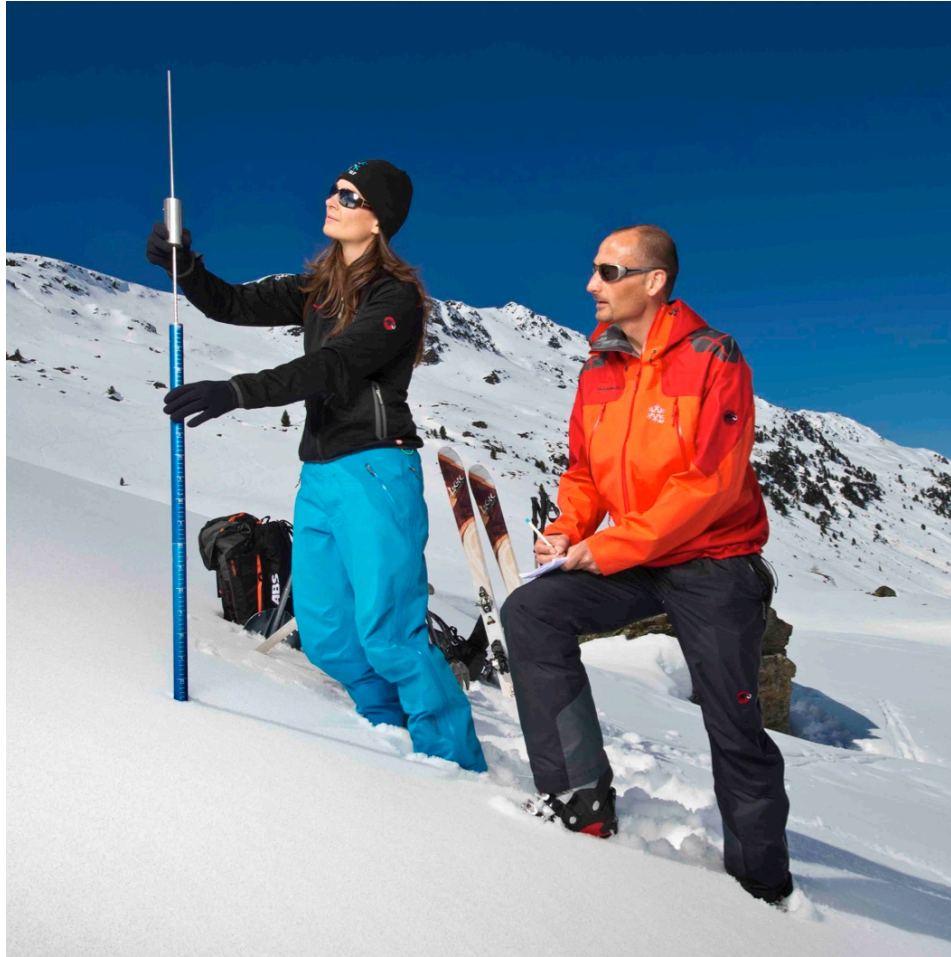


... and threads

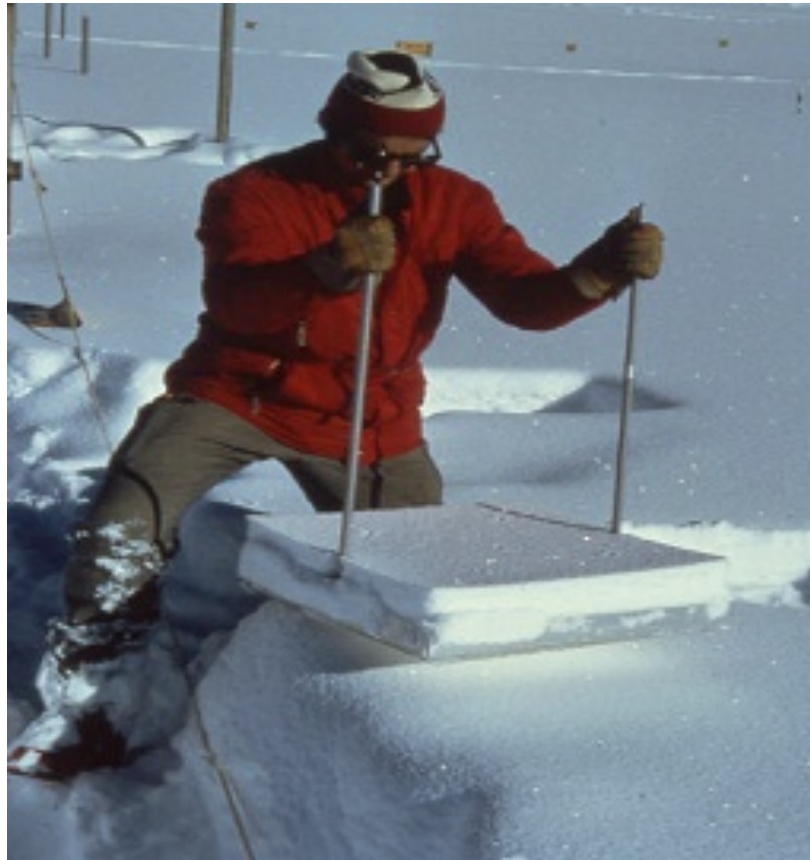




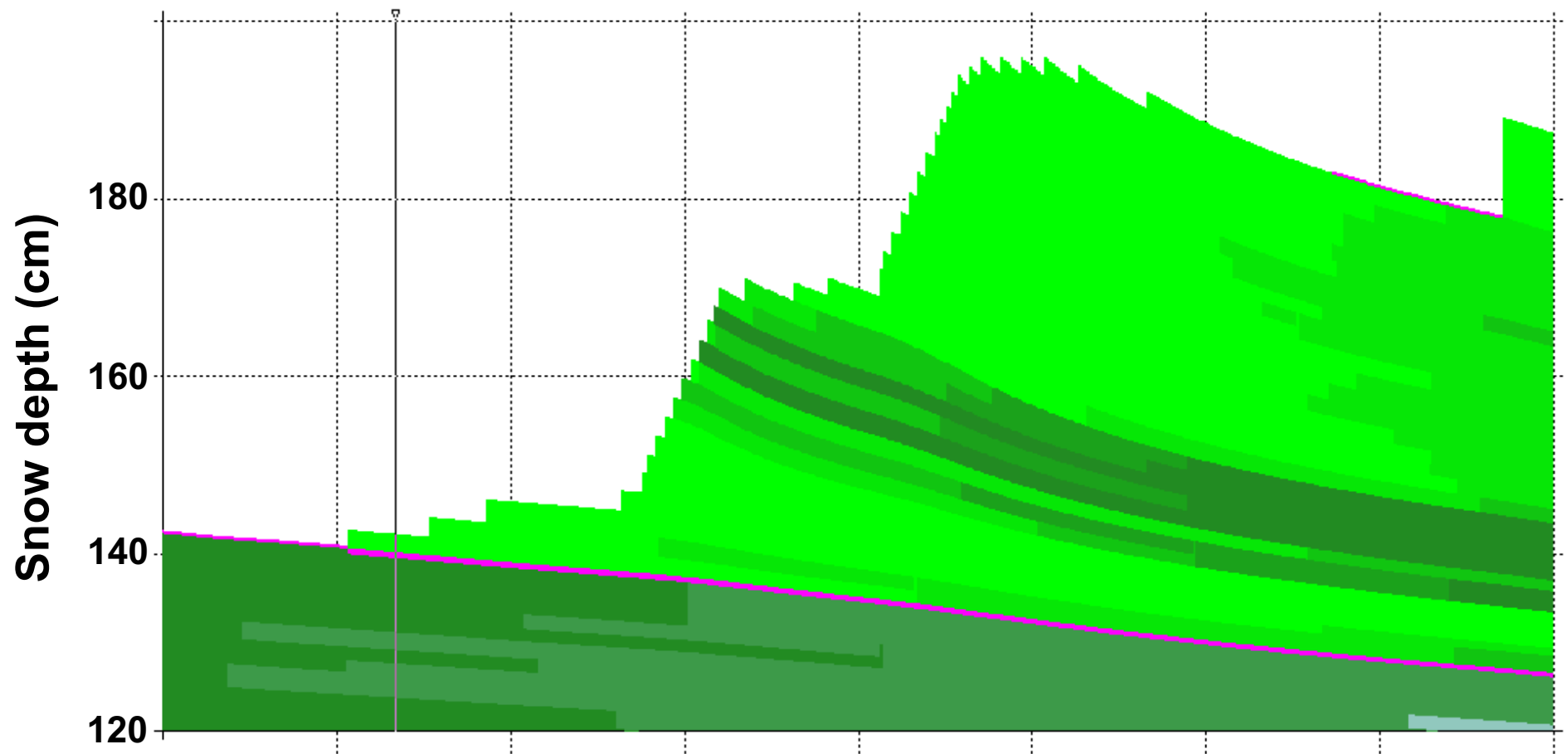
Ram penetrometer (Swiss ram sonde)



Depth and water equivalent of snowfall



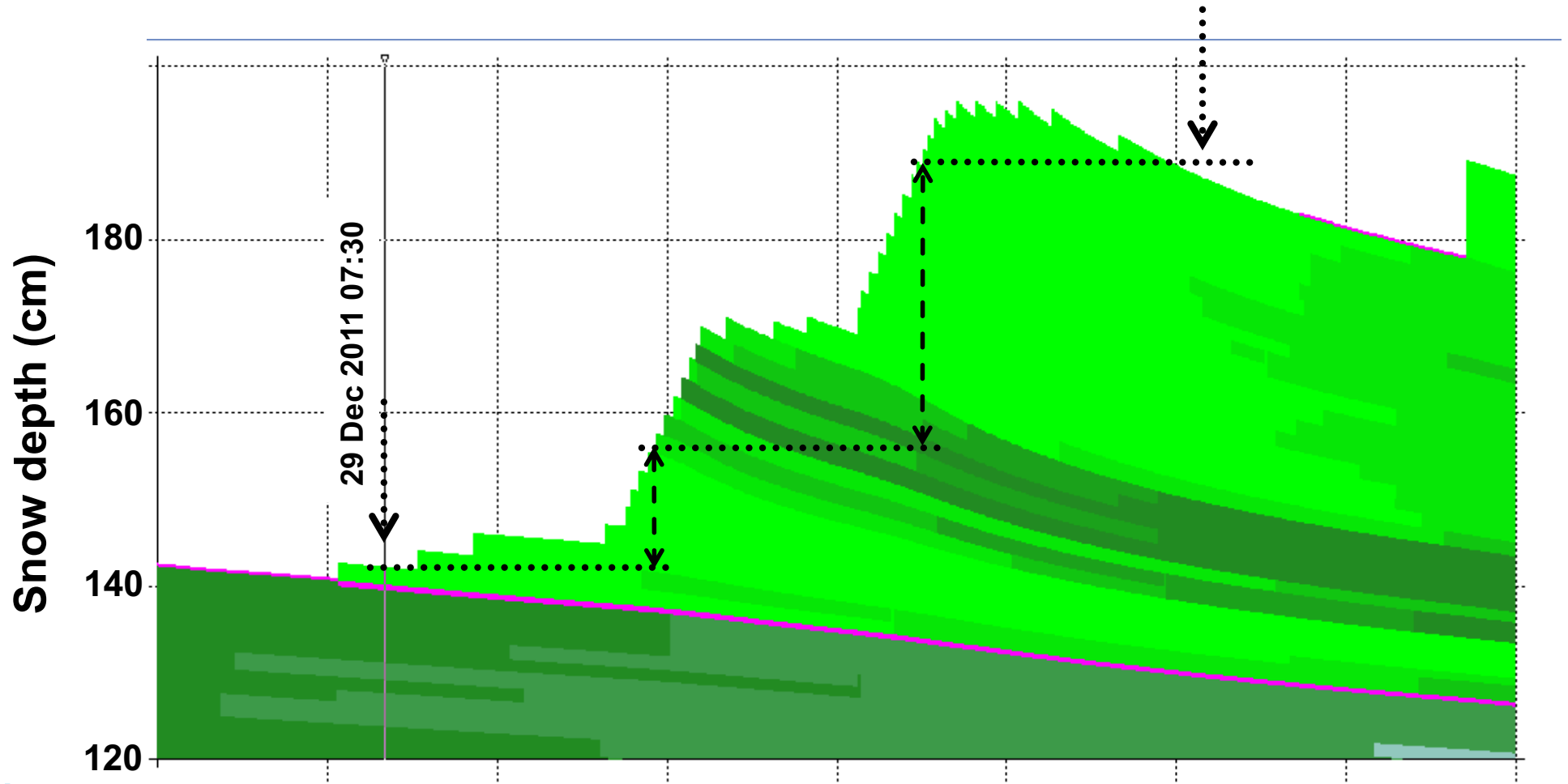
SNOWPACK @ Les Attelas (ATT2)



28 December 2011 – 2 January 2012



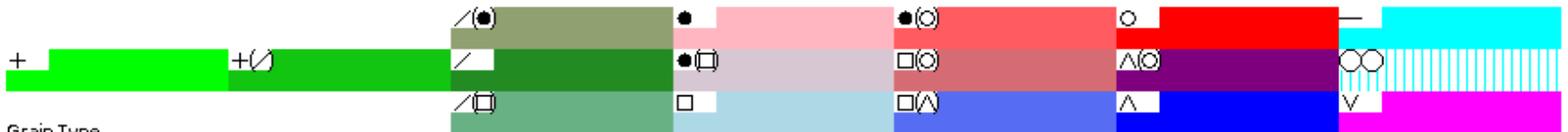
Les Attelas (ATT2): $\Delta\text{HS}(24\text{ h})$



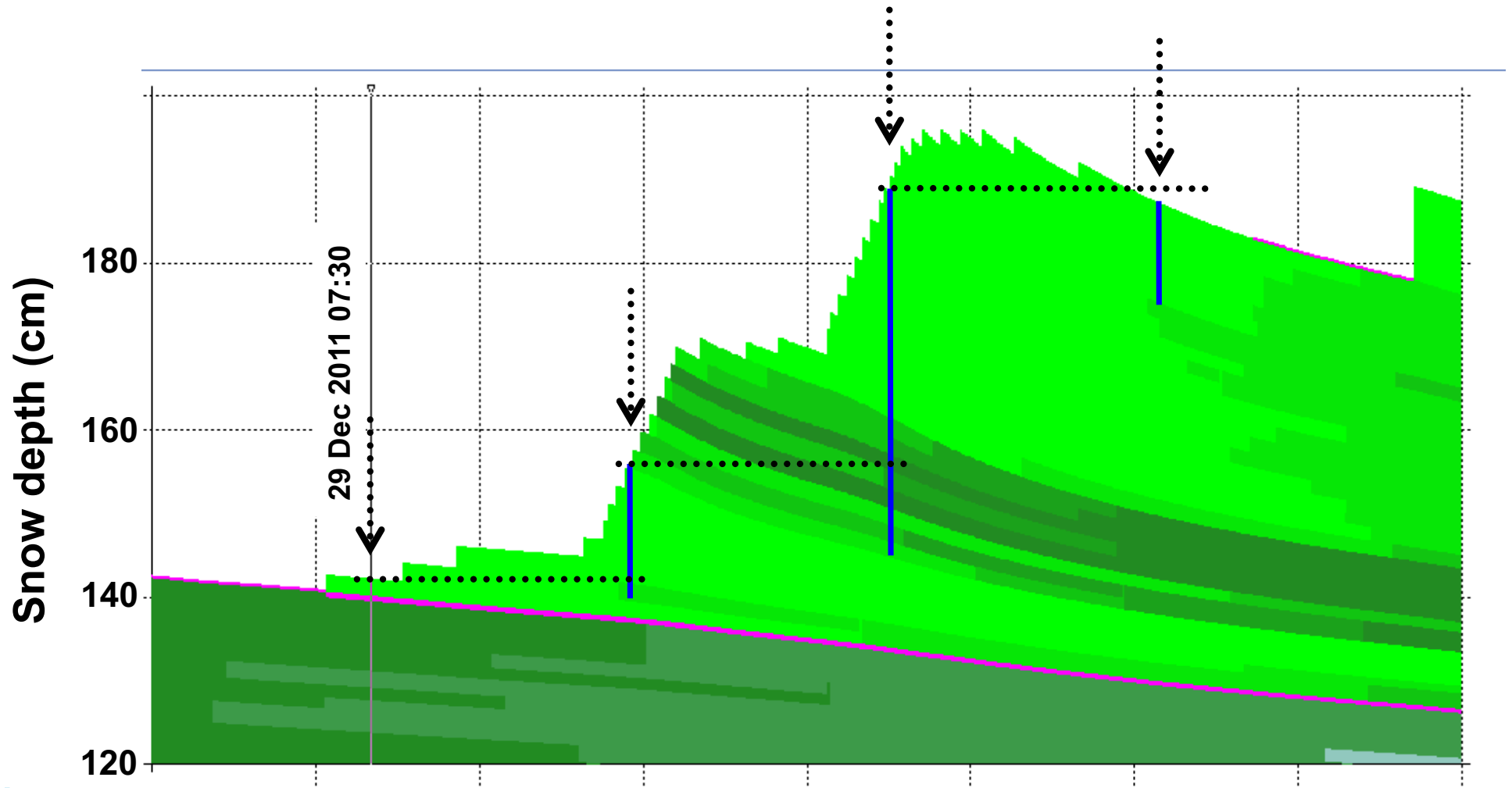
28 December 2011 – 2 January 2012



Grain Type



Les Attelas (ATT2): HN(24 h)

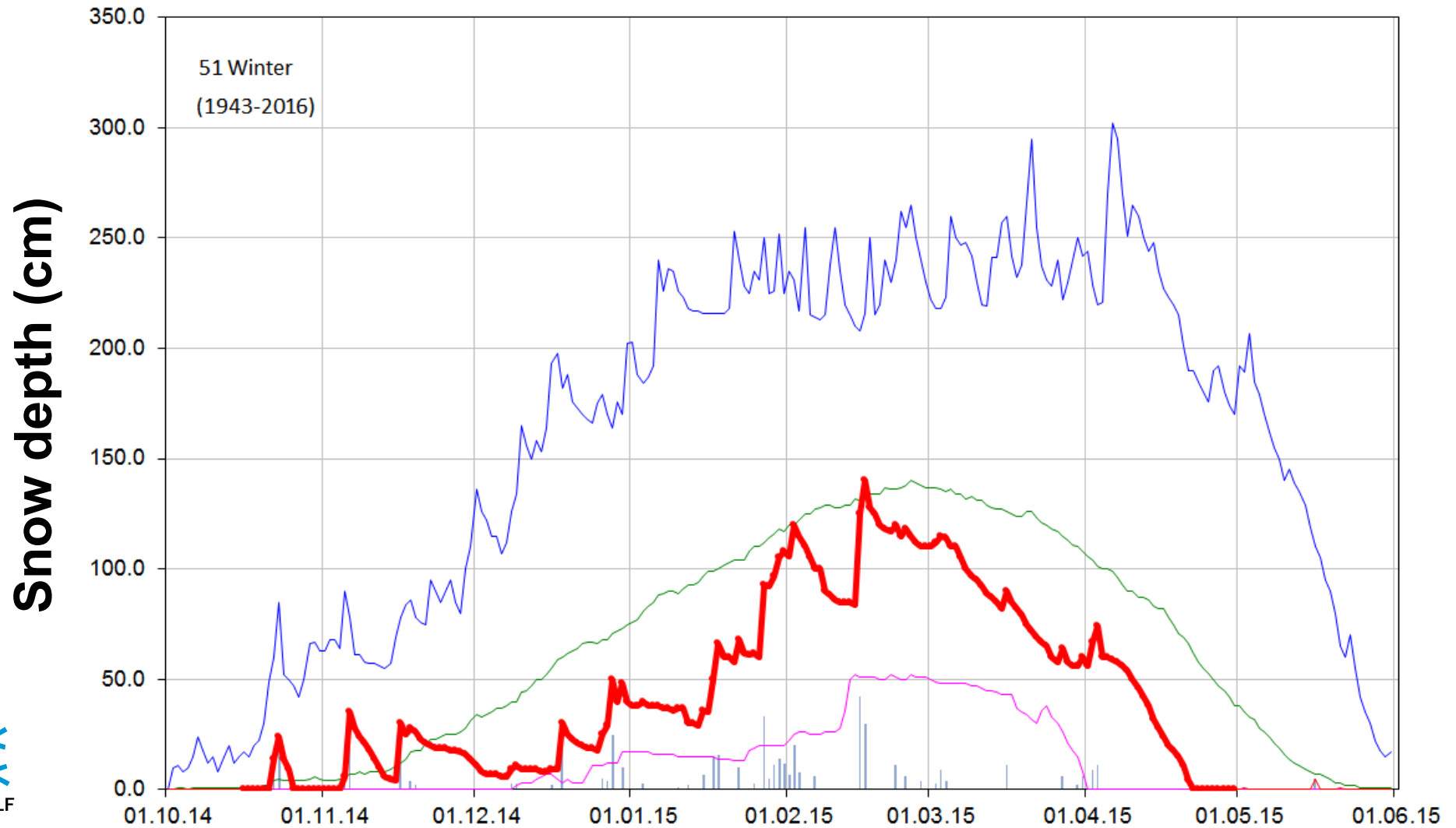


28 December 2011 – 2 January 2012



Long-term records of snow depth

4OW Oberwald (1370m)

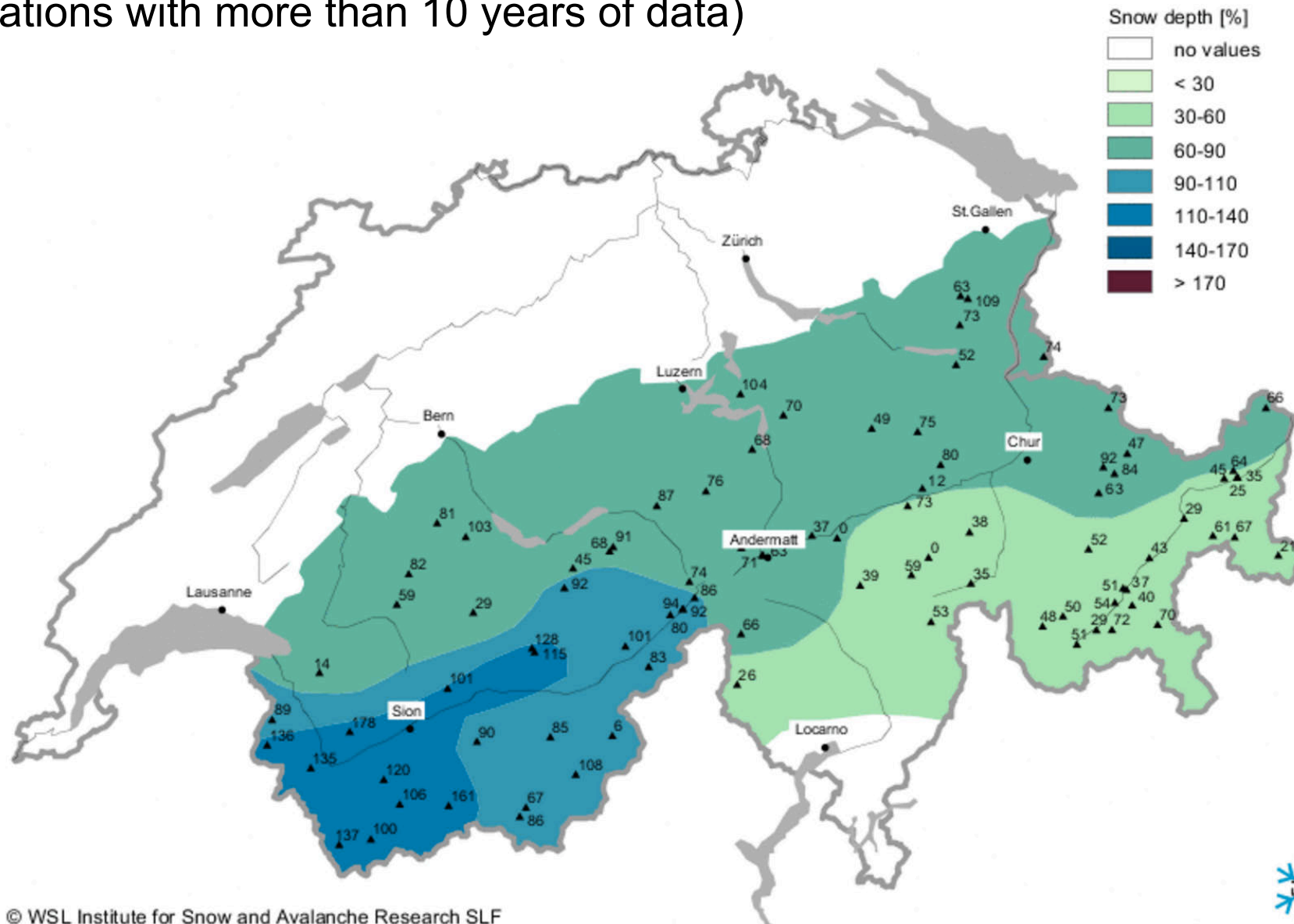


Winter 2014 / 2015, October to May

Snow depth percentage of long-term mean values

updated on 2016-02-25

(stations with more than 10 years of data)

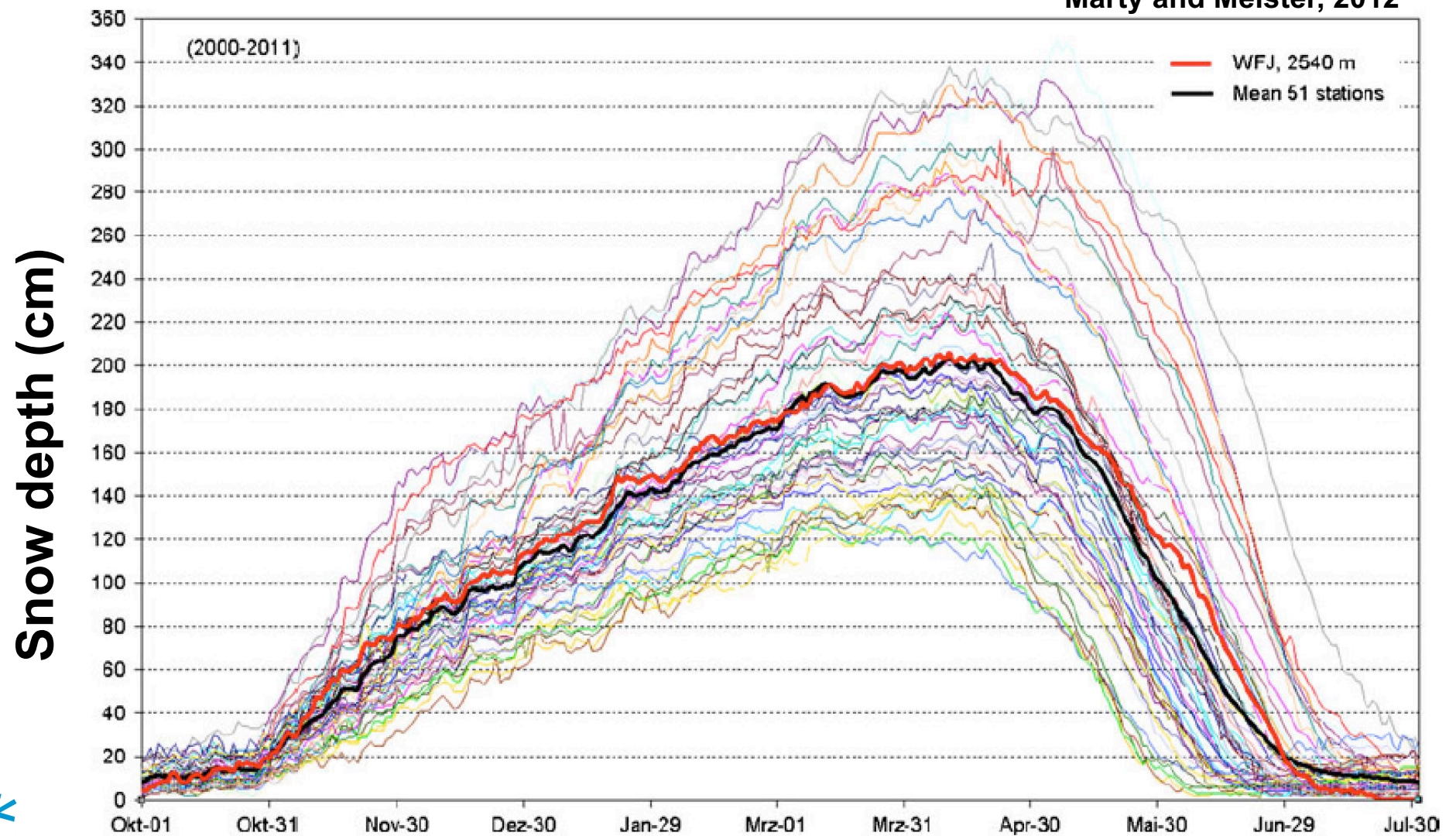


IMIS station Vallée de la Sionne



Representativity

Marty and Meister, 2012



2000 / 01, October to July



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WSL

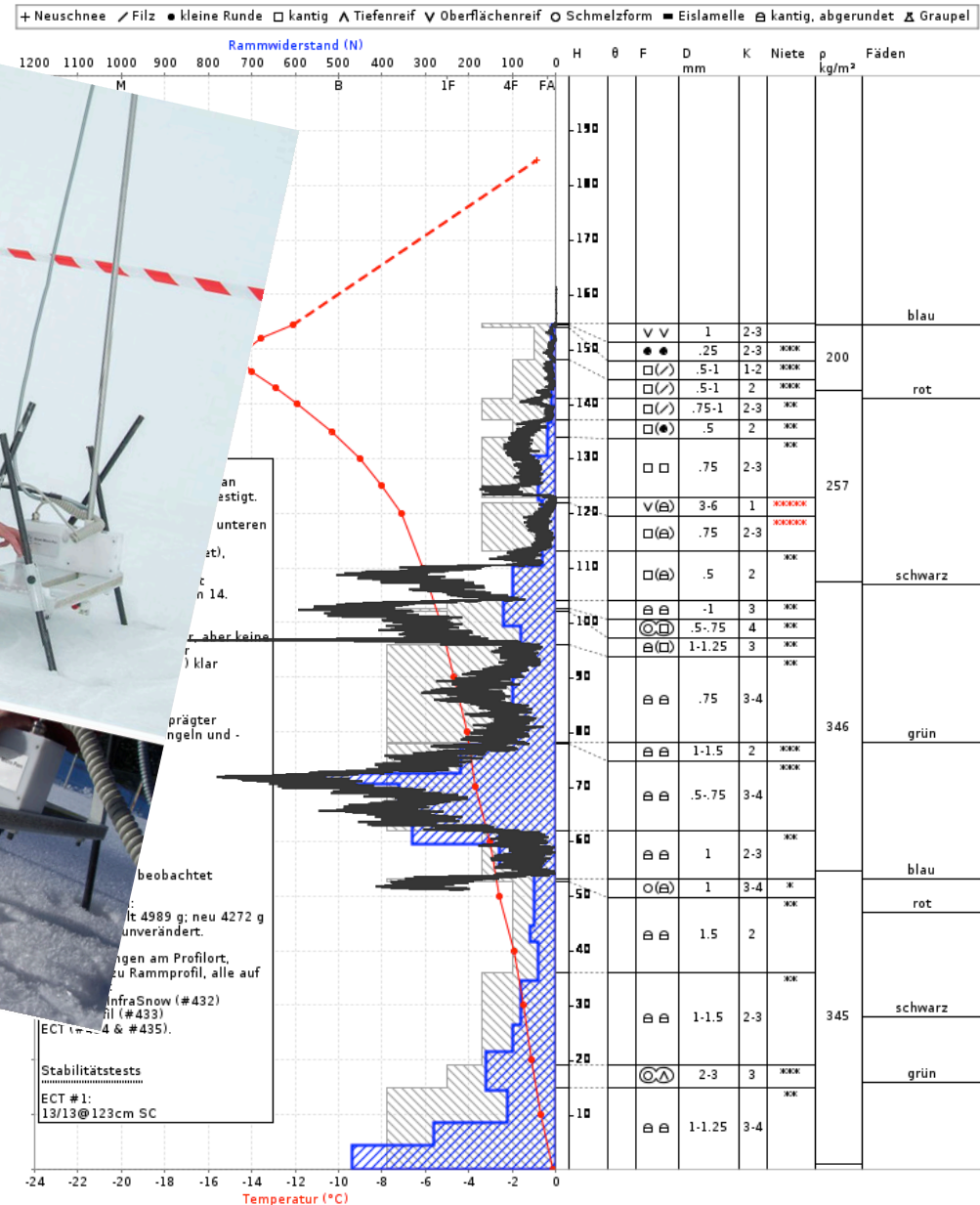
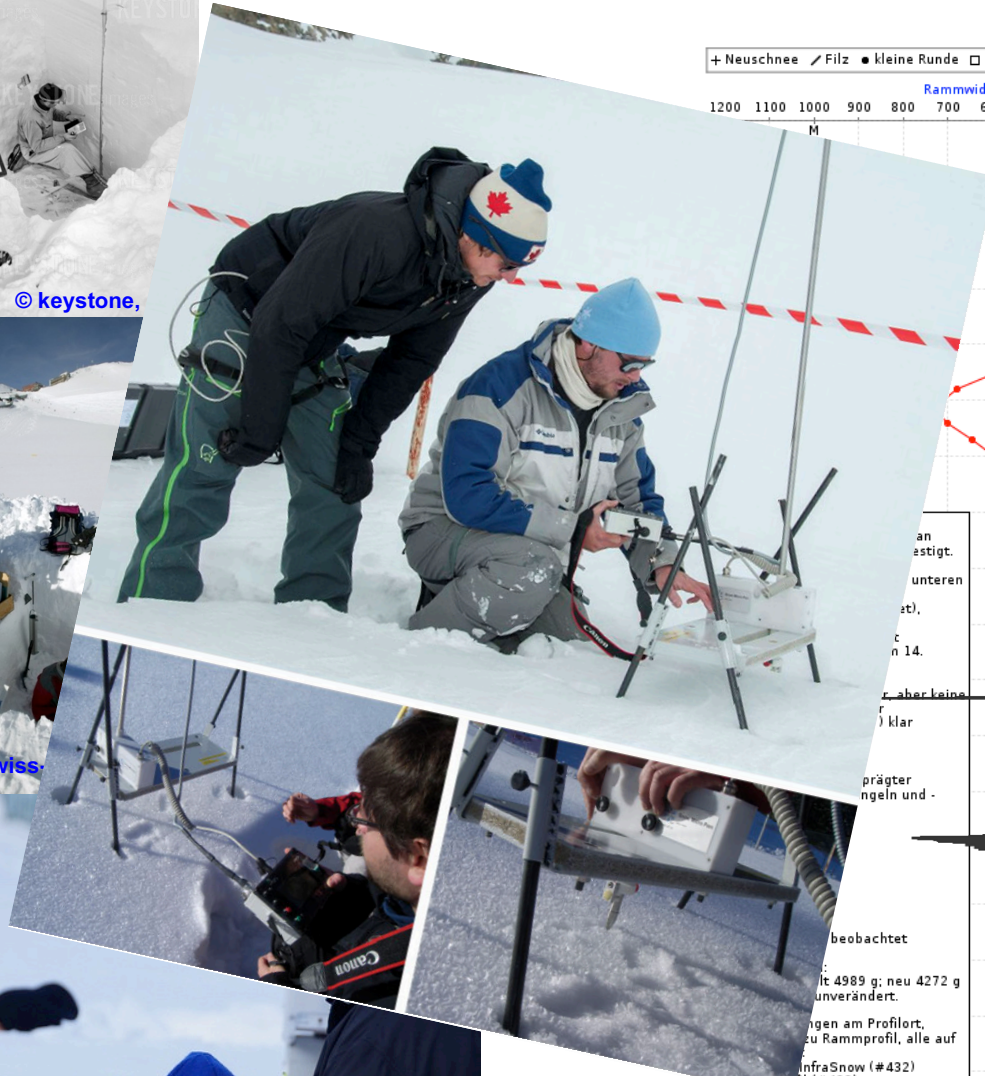
Snow or no snow on the ground ?



Davos, 29 Decembre 2015



Snow profiles today



Weissfluhjoch, 2536 m, 2015-02-13