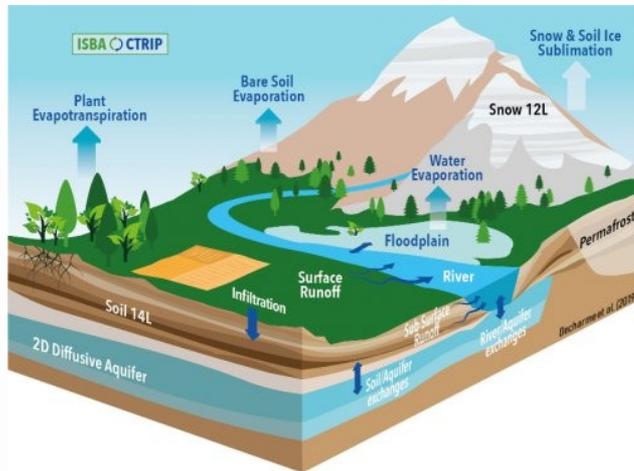# CNRM – climate risks

Climate and atmospheric composition research at CNRM, staff ~90 :
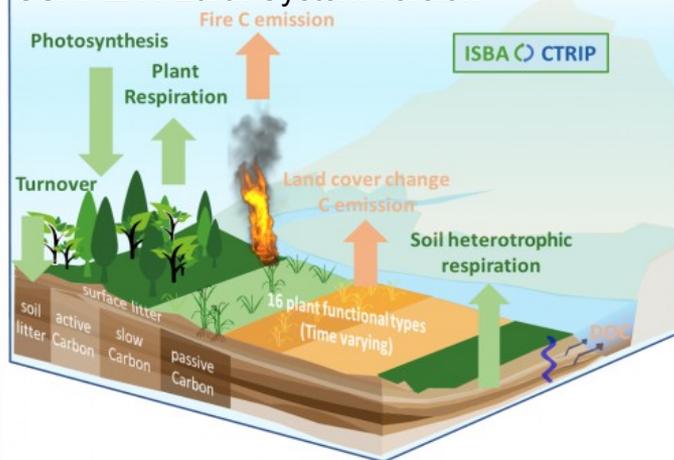
- climate variability, past and future climate change, global and regional (from 2.5 to 100 km horizontal resolution). Climate sensitivity, D&A, impacts and climate change mitigation

- climate predictability – research and operational activities (from subseasonal to seasonal)

- atmospheric composition (regional / global), research and development of several air quality operational configurations

David Salas y Mélia, Météo-France / CNRM, Toulouse, France
Australia / France Bushfire Workshop, 15-17 September 2020

Climate risks

Land-surface platform (SURFEX) - physical core

SURFEX : Earth System version

Modelling Tools :
- Climate : CMIP6 AOGCM CNRM-CM6-1 (ARPEGE-SURFEX-NEMO ~1°), CNRM-ESM2-1 : interactive aerosols (incl. black carbon due to wildfires), 3D stratospheric chemistry
- Air quality : MOCAGE (from 0.1° to 1° resolution)
- Urban climate : TEB (~100 m resolution)

Climate Risks Studies :
- Mostly focused on mainland France and overseas (but not only !)
- High precipitation events, big convective cells, tropical cyclones, water ressources, heatwaves, droughts, impact of climate change on air quality, urban heat islands…
- several topics addressed at CNRM have connections with wildfires (seasonal prediction with an ESM, atmospheric composition, carbon fluxes...)

Thank you !