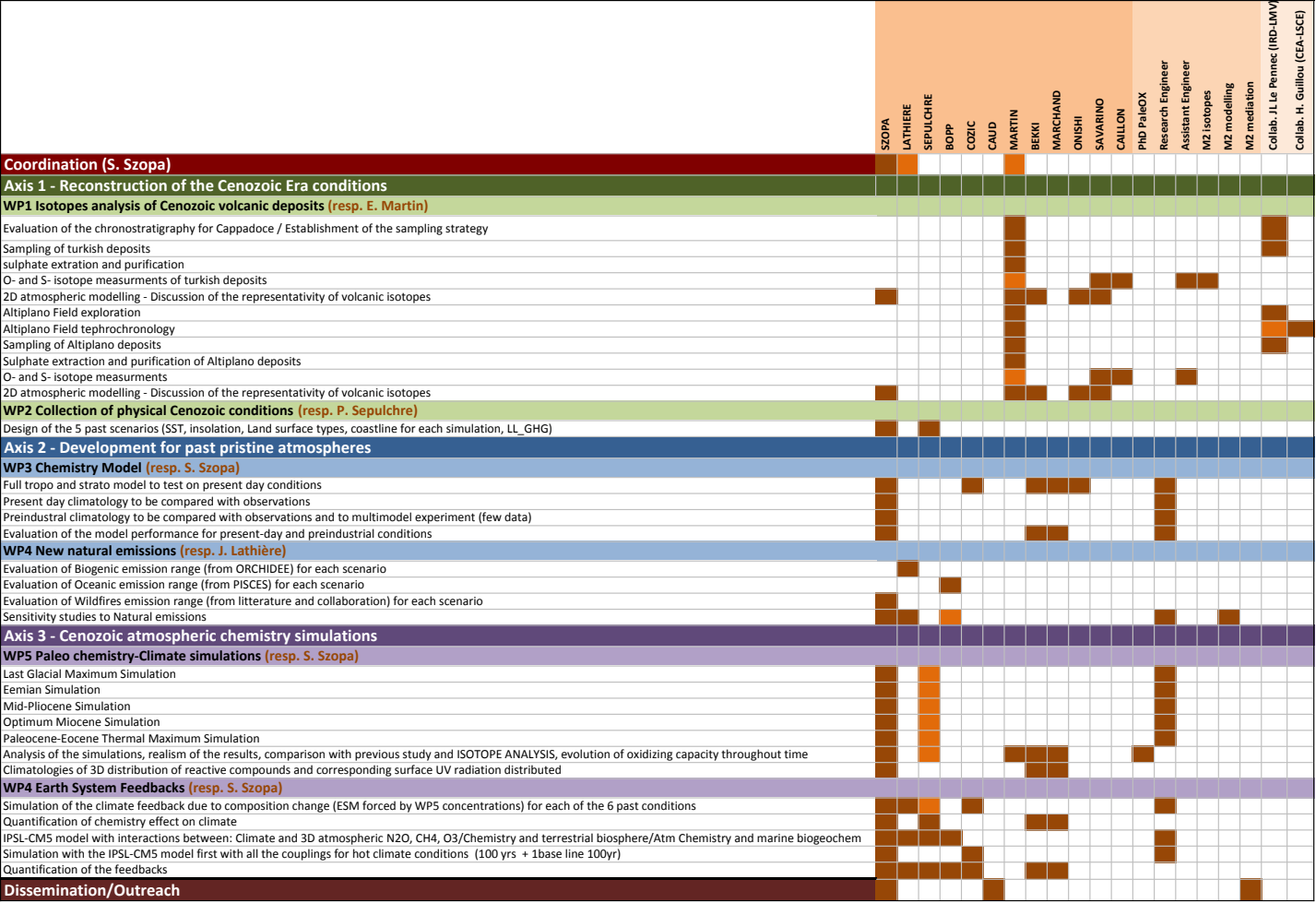
SZOPA
LATHIERE
SEPULCHRE
BOPP
COZIC
CAUD
MARTIN
BEKKI
MARCHAND
ONISHI
SAVARINO
CAILLON
PhD PaleOX
Research Engineer
Assistant Engineer
M2 isotopes
M2 modelling
M2 mediation
Colab. JL Le Pennec (IRD-LMV)
Colab. H. Guillou (CEA-LSCE)
Coordination (S. Szopa)
Axis 1 - Reconstruction of the Cenozoic Era conditions
WP1 Isotopes analysis of Cenozoic volcanic deposits (resp. E. Martin)
Evaluation of the chronostratigraphy for Cappadoce / Establishment of the sampling strategy
Sampling of turkish deposits
sulphate extration and purification
O- and S- isotope measurments of turkish deposits
2D atmospheric modelling - Discussion of the representativity of volcanic isotopes
Altiplano Field exploration
Altiplano Field tephrochronology
Sampling of Altiplano deposits
Sulphate extraction and purification of Altiplano deposits
O- and S- isotope measurments
2D atmospheric modelling - Discussion of the representativity of volcanic isotopes
WP2 Collection of physical Cenozoic conditions (resp. P. Sepulchre)
Design of the 5 past scenarios (SST, insolation, Land surface types, coastline for each simulation, LL_GHG)
Axis 2 - Development for past pristine atmospheres
WP3 Chemistry Model (resp. S. Szopa)
Full tropo and strato model to test on present day conditions
Present day climatology to be compared with observations
Preindustral climatology to be compared with observations and to multimodel experiment (few data)
Evaluation of the model performance for present-day and preindustrial conditions
WP4 New natural emissions (resp. J. Lathière)
Evaluation of Biogenic emission range (from ORCHIDEE) for each scenario
Evaluation of Oceanic emission range (from PISCES) for each scenario
Evaluation of Wildfires emission range (from litterature and collaboration) for each scenario
Sensitivity studies to Natural emissions
Axis 3 - Cenozoic atmospheric chemistry simulations
WP5 Paleo chemistry-Climate simulations (resp. S. Szopa)
Last Glacial Maximum Simulation
Eemian Simulation
Mid-Pliocene Simulation
Optimum Miocene Simulation
Paleocene-Eocene Thermal Maximum Simulation
Analysis of the simulations, realism of the results, comparison with previous study and ISOTOPE ANALYSIS, evolution of oxidizing capacity throughout time
Climatologies of 3D distribution of reactive compounds and corresponding surface UV radiation distributed
WP4 Earth System Feedbacks (resp. S. Szopa)
Simulation of the climate feedback due to composition change (ESM forced by WP5 concentrations) for each of the 6 past conditions
Quantification of chemistry effect on climate
IPSL-CM5 model with interactions between: Climate and 3D atmospheric N2O, CH4, O3/Chemistry and terrestrial biosphere/Atm Chemistry and marine biogeochem
Simulation with the IPSL-CM5 model first with all the couplings for hot climate conditions (100 yrs + 1base line 100yr)
Quantification of the feedbacks
Dissemination/Outreach