Application for a: Incoming Scheme NEWFELPRO Fellowship for experienced researcher Proposal Acronym: **INTEGEORES** Proposal Title: Integration of geological mapping, geothermal potential and innovative geothermal energy storage into advanced planning of energy systems with high share of renewable energy sources Research area(s): Environment and geosciences ENV Research sub-disciplines: Environment and sustainability Geology - tectonics - volcanology Category of research: applied Duration in months: 24 Keywords: Renewable energy, Geothermal energy, Energy storage, EnergyPLAN, H2RES Abstract: From a general point of view, the expected depletion of fossil fuels, the need to fight against global warming, the awareness for environmental protection and finally the inclusion of sustainable development in the energy policies put the renewable energies in strategic position for the future of our planet. Our research objectives are related to one of the most important source of energy: GEOTHERMICS. In this context, Croatia has an important geothermal potential that could be a significant renewable energy resource, substantially contributing to the overall energy efficiency and the environmentally acceptable energy policy. This project will be important step in integration of geothermal sources into energy planning models with innovative component of seasonal and diurnal energy storage. Does this proposal possess any of the sensitive ethical issues No detailed in ethical issues table?