**Dynamic Soil Properties (DSP) Hub Business Requirements, Technical Platform, and Data Processes/Workflow Requirements Incompatible with EDAPT Processes**

The functioning of the DSP Hub as a data science workbench and data development platform needs to have autonomy from EDAPT to rapidly evaluate, develop, deploy, and maintain data services that will include transactional data interactions. The data developed from the DSP Hub will be provided to the EDAPT environment for a variety of downstream uses.

The functioning of the DSP Hub in delivering data products, especially as part of what serves the CART Benefits Module will need the following:

Transactional workflow capability - ability to interact in real time (fast enough) with data coming in, especially the CART Benefits model. Example workflow

1. Data shows up at DSP Hub from CART, CIG, or other source(s) that could be transactional
2. In real time, triggers runningmodels in DSP Hub are desired (potentially connects to NASIS or other non-EDAPT-hosted source like COMET-Farm stuff or other models)
3. Report of the model run is stored as a new data set for other analyses (this could get sent to EDAPT if no PII)
4. Ships value back out to CD, CIG participant, etc

Administrative controls that allow for rapid development of new data products from a variety of partial and legacy data sources that are not suitable for EDAPT

1. Import/load data to develop a model – these could be spreadsheets from someone’s computer, pulled from a website (COMET example) scripts with data attached, or partial data sets that need to be evaluated and data standards developed (urban assessments)
2. Develop algorithms, models, and analytics
3. Test and run against other non-EDAPT hosted data including NASIS and NPAD.
4. Load into and monitor status of data product through approval process workflow as automated in DSP Hub (technical review process)
5. Load results of model as new data set (this could be shipped to EDAPT when approved for release)

Ability to develop, test, and maintain statistical and scientific models that interact with a variety of existing and new transactional data.

1. There are many existing legacy models in NRCS that have data sources associated with them that will need to be evaluated and reformatted to seamlessly produce dynamic soil property data for customers.
2. Models such as COMET and APEX and others have reference data and processes embedded in the respective system that will need to be reformatted into the DSP Hub. This work is needed to serve the CART Benefits Module and the Conservation Practices Database. The way that the models and reference data interact will be partially transactional to create new data sets and provide data to other applications to consume.