FRAMEWORKS: SOFTWARE INFRASTRUCTURE FOR TRANSFORMATIVE URBAN SUSTAINABILITY RESEARCH

Colorado State University: Shrideep Pallickara, Mazdak Arabi, Jay Breidt, Sudipto Ghosh, Sangmi Pallickara [1931363]

Arizona State University: Mikhail Chester [1931324]

University of California, Irvine: Amir AghaKouchak [1931335]

University of Maryland Baltimore County: Claire Welty [1931283]

The NSF has invested in several strategic research efforts in the area of urban sustainability, all of which generate, collect, and manage large volumes of data. This project produces an enabling software infrastructure, SUSTAIN, that facilitates and accelerates discovery by significantly alleviating data-induced inefficiencies. The effort leverages a novel sketching algorithm to decouple data and information.

NCAR NEON

Industry Collaboration
ESRI and Google Earth

LTERs, SRNS, WSCs

Federal Agencies
USGS, Forest Service, USDA, and USACE

SUSTAIN

Metro agencies
BPW

Urban Sustainability
Research Community

Community Engagement Workshops

CUASHI
Consortia of
130 Universities

XSEDE
Extreme Science and Engineering Discovery Environment

FutureSystems

Jetstream

NSF-funded Cyberinfrastructure

Project Advisory Board
Representation from academia, industry, federal agencies, and citizen science