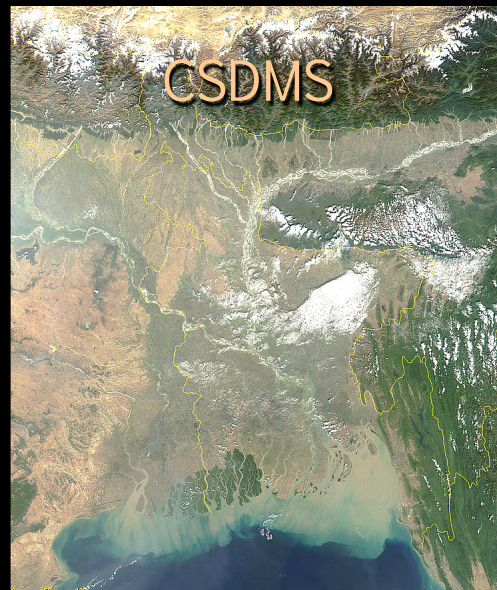


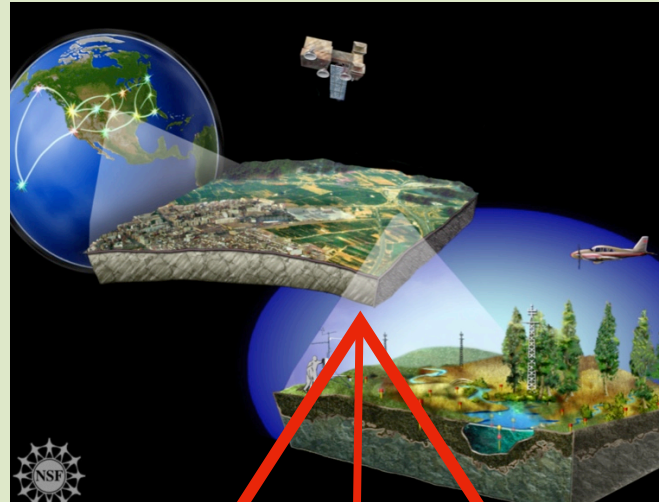
The Community Surface Dynamics Modeling System

develops, integrates, archives & disseminates software to define the earth's surface dynamics

James (Jai) Syvitski, CSDMS Executive Director

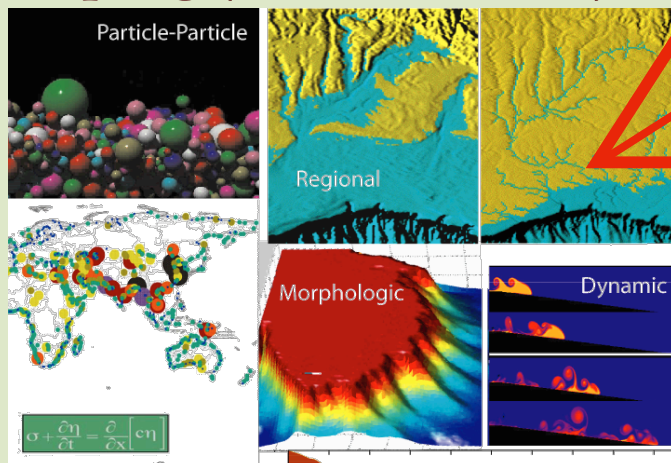


NSF's 21st Century Environmental Advanced Cyber-Infrastructure (ACI)

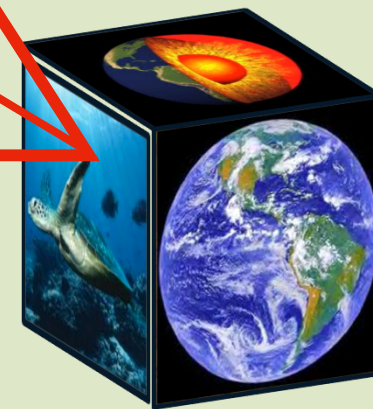


1) Sensing / Observing
the Environment
(NEON, CZO, LTER)

3) Model Development &
Coupling (CSDMS, CESM)



Detection
Prediction
Services



2) Big Data
(EarthCube)





Working Groups

Terrestrial	665
Coastal	530
Marine	340
EKT	210
Cyber	200

Focus Research Groups

Hydrology	525
Geodynamics	120
Carbonate	95
Chesapeake	70
Critical Zone	70
Human Dimensions	65
Ecodynamics	45

Initiatives

Coastal Vulnerability	75
Continental Margins	42

Environmental WGs & FRGs advance short to long term goals; modeling priorities; quality control



CSDMS Groups offer:

1. Disciplinary tools / models;
2. Quality control & testing;
3. Development priorities;
4. Resource prioritization;
5. Proposals

CSDMS IF offers:

1. International coordination
2. Model & Data Repository
3. Model Coupling & Model Reuse Middleware
4. High Performance Computing Support
5. Education & Knowledge Transfer Products
6. Model Support Services
 - Modeling Tools
 - Model Metadata & Info



Linking Earth System Dynamics and Social System Modeling

23-25 May 2016, Boulder, Colorado

Sponsors



CSDMS
COMMUNITY SURFACE DYNAMICS MODELING SYSTEM

GLOBAL
IGBP International
Geosphere-Biosphere
Programme
CHANGE

futureearth
research for global sustainability

White paper



In 2014 experts met to investigate social dimensions of the Anthropocene

- Re-conceptualizing the Anthropocene: A new call for collaboration
- Methods and approaches to modeling the Anthropocene
- Plausible and desirable futures in the Anthropocene
- Down to Earth: Contextualizing the Anthropocene

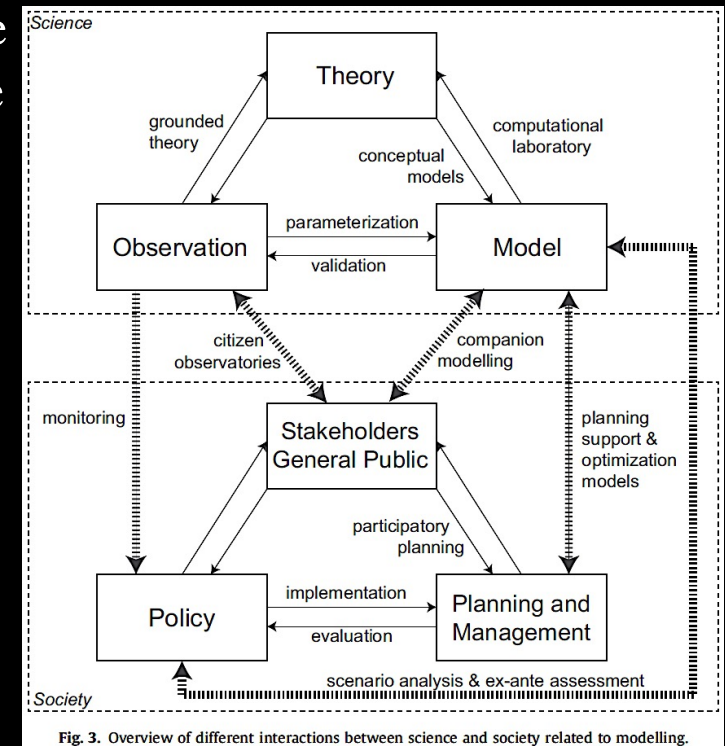
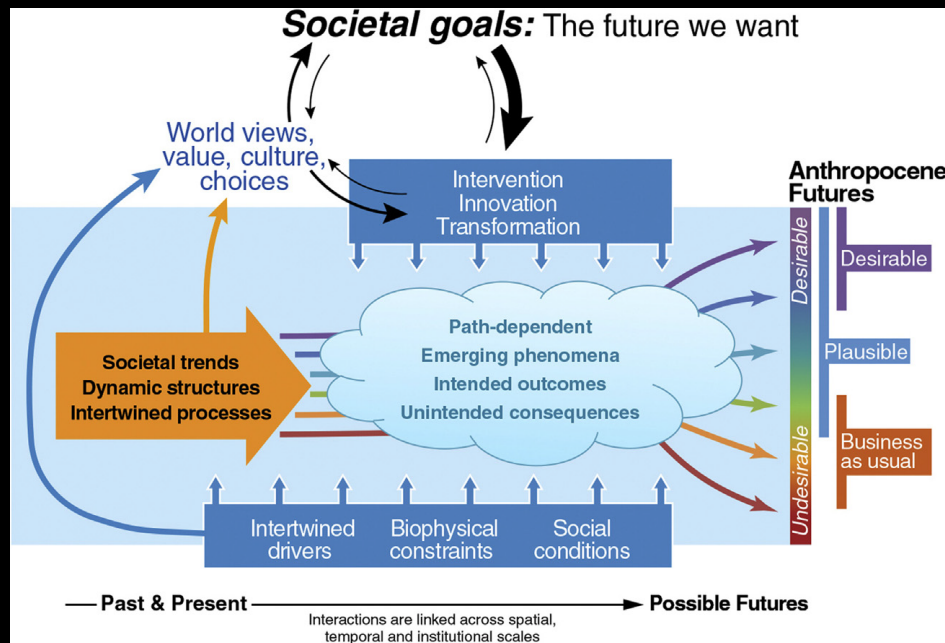


Fig. 3. Overview of different interactions between science and society related to modelling.