From science to practice: Recommended practices for disaster risk management

19 September 2014
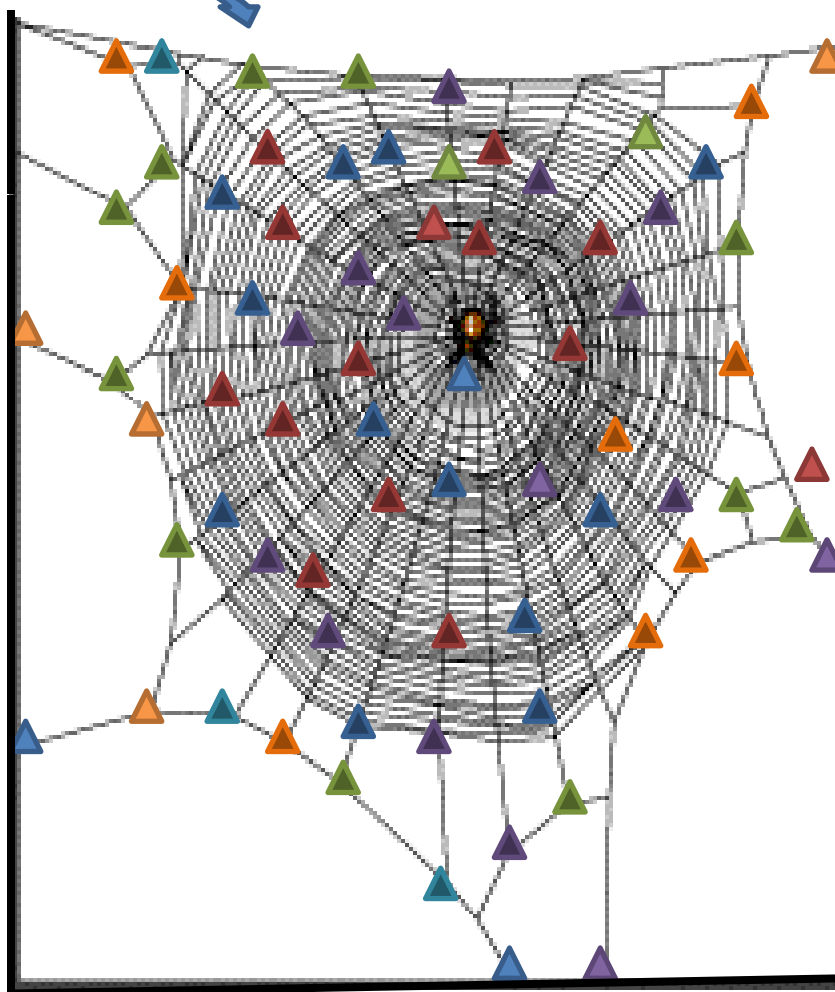
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UN-SPIDER Knowledge Portal

Information Sources:

- Regional Support Offices
- Conferences, Workshops, Expert Meetings
- Technical Advisory Missions
- WWW
- Scientific Papers
- Networks (e.g. IWG-SEM, UNGIWG)
- Social Media
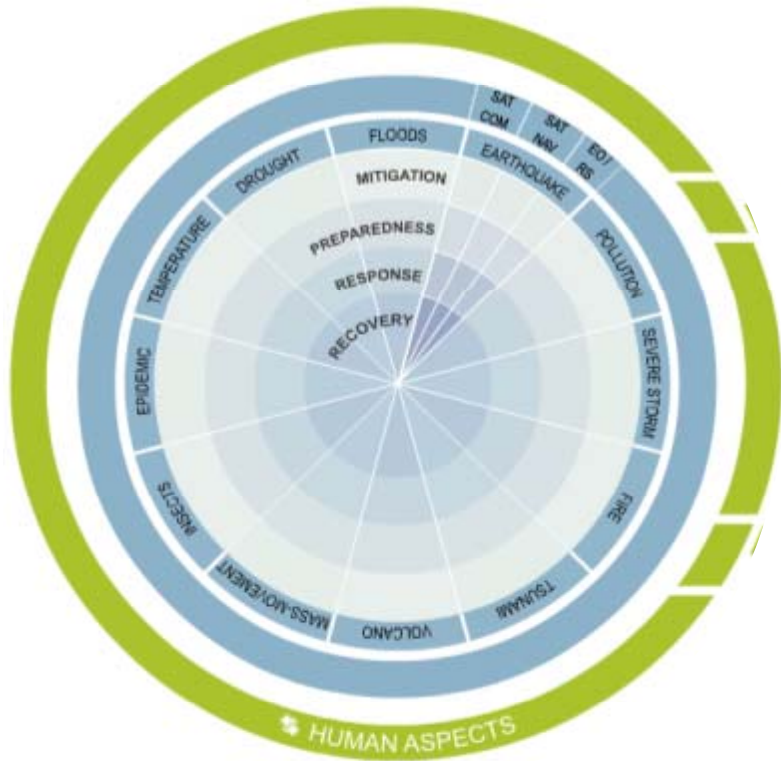- Civil Protection Agencies
- Space Agencies
- Academia
- …

Content types/ tagging:

- News
- Events
- Data Sources
- GIS/RS Software
- Methodologies
- Case Studies
- Institutions
- Emergency Response
- Risk Management
- Floods, Droughts
- Tsunamis
- …

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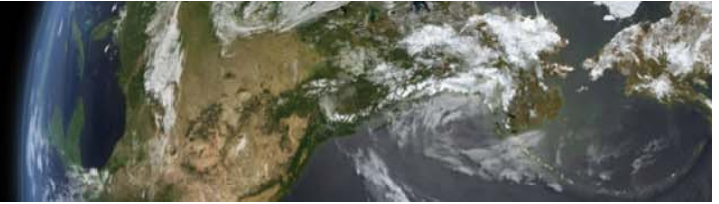
Science perspective: Space Application Matrix

- Hazard type/ Human aspects
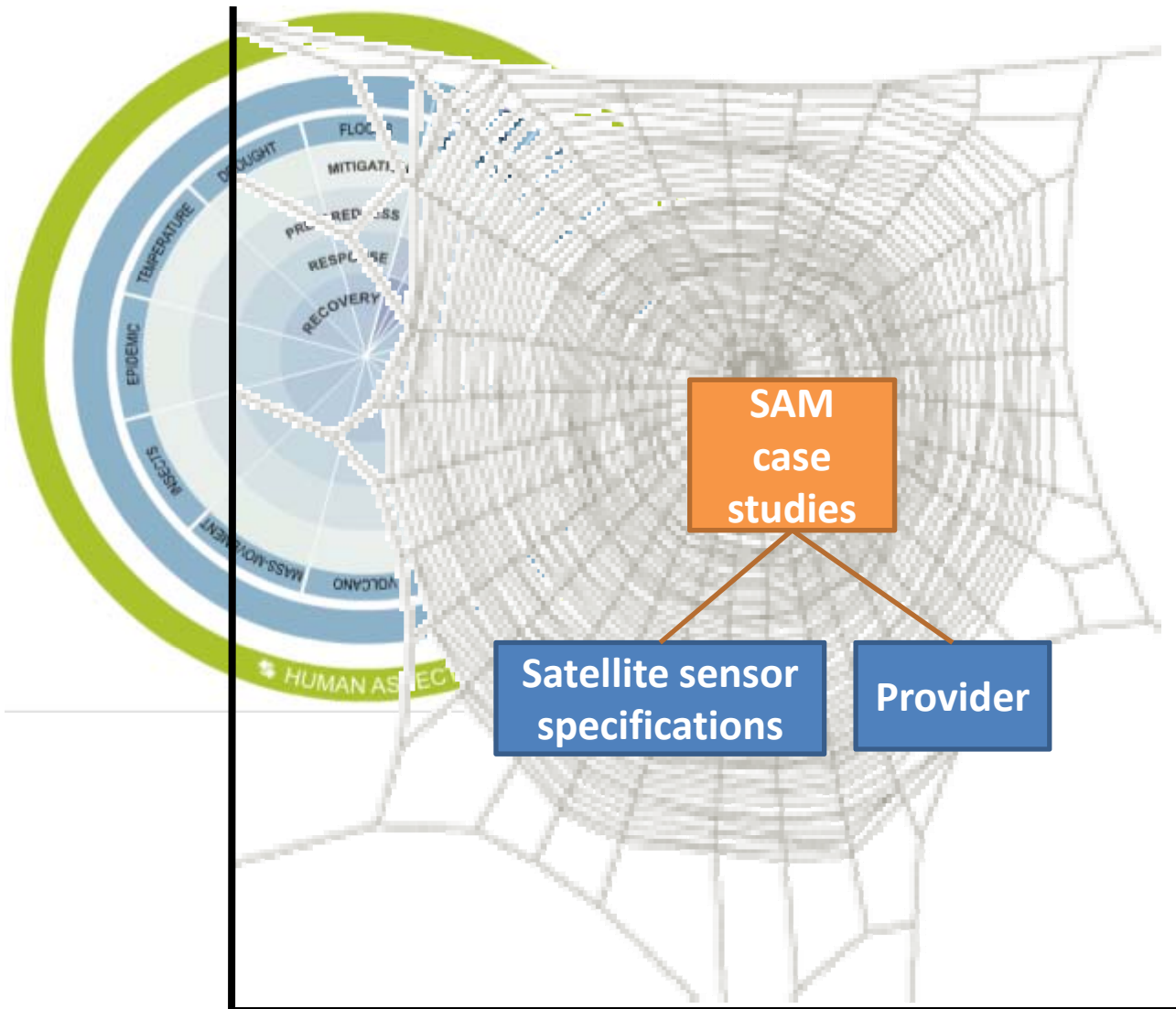- Disaster Cycle Phase
- Space technology

192 fields

Currently 199 different **case studies/ research papers** in 66 fields

Linked to 106 **satellite sensor profiles** and 35 **providers**

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Science perspective: Space Application Matrix

SAM case studies

Satellite sensor specifications

Provider

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From Science to Practice…

How can I apply these methods?

Where do I get the data and software?

Are the methods robust?

Is the method transferable, i.e. can I apply it in my country?

Do I have sufficient capacity and resources to apply the method?

How accurate and reliable are the results?

How do I interpret the resulting image?

…?

Recommended Practices on the Knowledge Portal

Recommended Practices
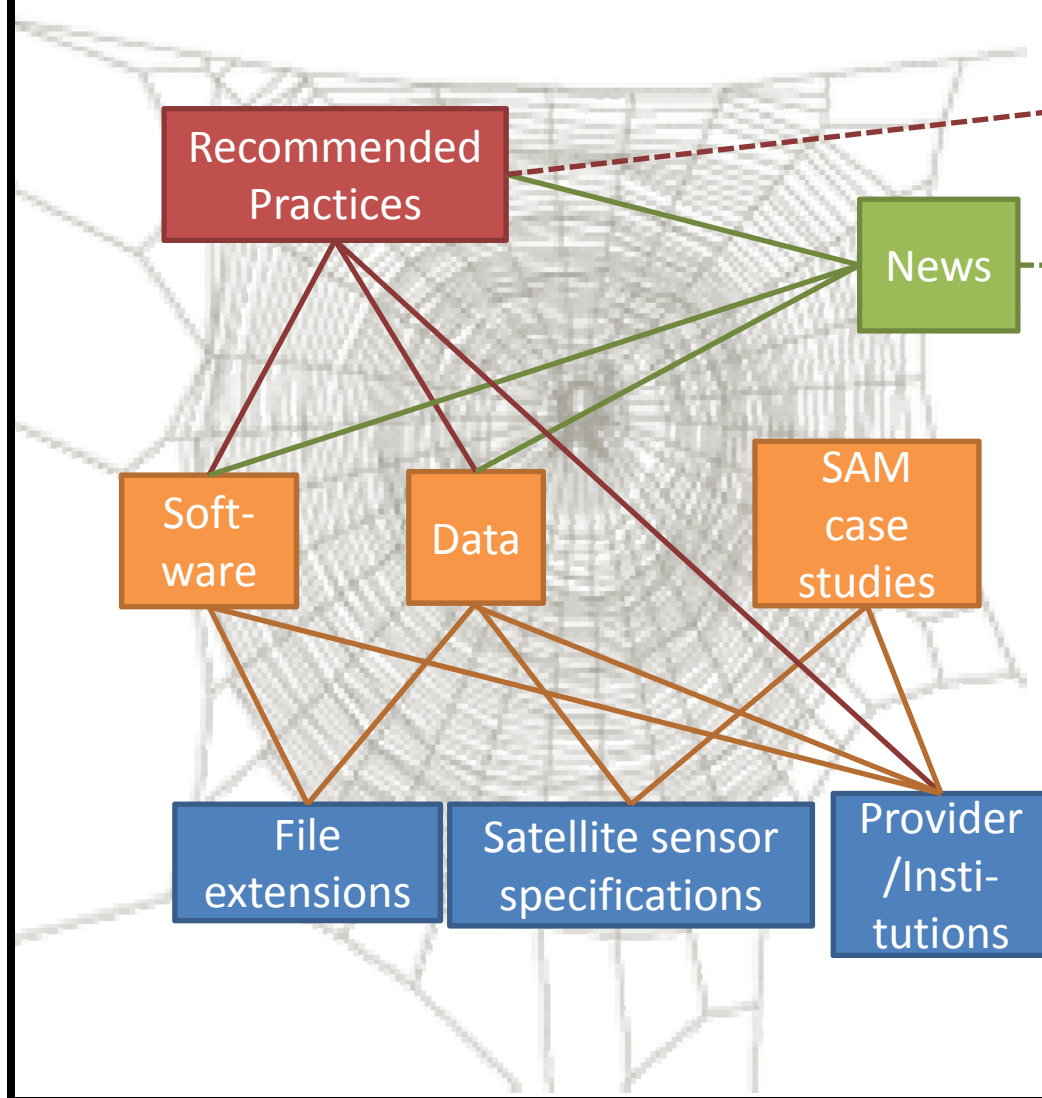
UN-SPIDER training events

News

Social Media

Soft-ware

Data

SAM case studies

File extensions

Satellite sensor specifications

Provider /Insti-tutions

104 published data sources
107 software items
199 SAM case studies
106 satellite sensor specifications
1878 news
375 institutions
2 recommended practices finalized

Example: Recommended Practice Flood Hazard Mapping

How do land use changes affect runoff and potential inundation areas in my region?

Recommended practices provide step-by-step instructions on how to apply the methodology.

Land Use

- Water
- Urban
- Forest
- Agricultural

Meteo Data

Soil

- A
- B
- C
- D

HydroDEM

CN Grid

Hydrograph

Inundation Polygon

Drainage Network

DEM

CN Look Up

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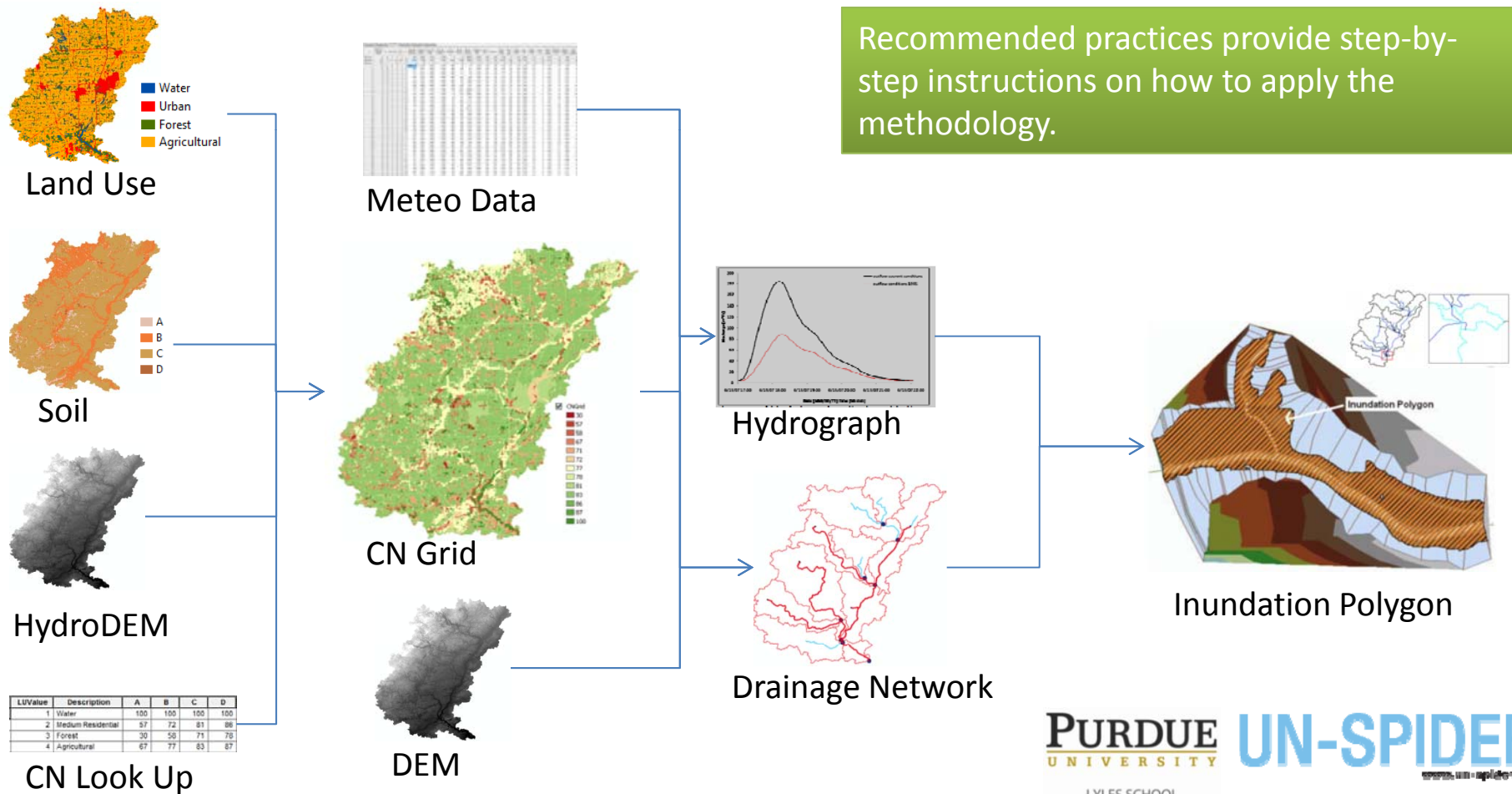
Recommended Practices – Stage 2
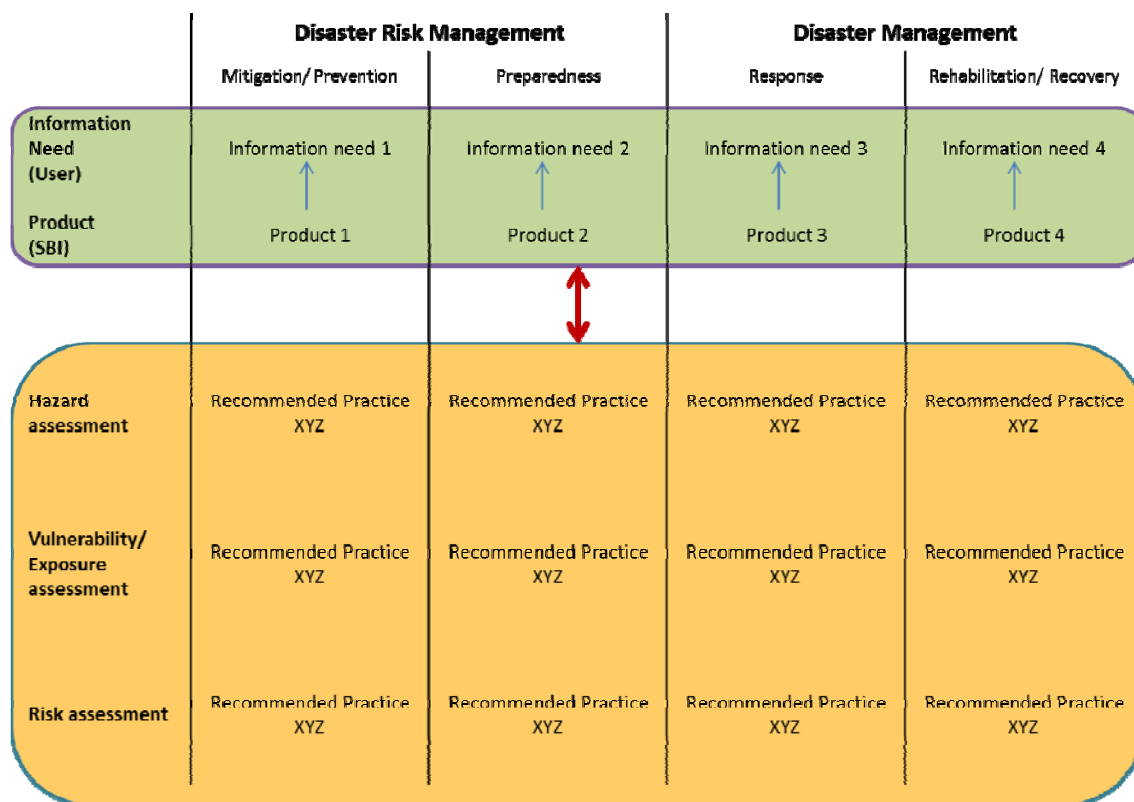
	Disaster Risk Management		Disaster Management	
	Mitigation/ Prevention	Preparedness	Response	Rehabilitation/ Recovery
Information Need (User)	Information need 1	Information need 2	Information need 3	Information need 4
Product (SBI)	Product 1	Product 2	Product 3	Product 4
Hazard assessment	Recommended Practice XYZ	Recommended Practice XYZ	Recommended Practice XYZ	Recommended Practice XYZ
Vulnerability/ Exposure assessment	Recommended Practice XYZ	Recommended Practice XYZ	Recommended Practice XYZ	Recommended Practice XYZ
Risk assessment	Recommended Practice XYZ	Recommended Practice XYZ	Recommended Practice XYZ	Recommended Practice XYZ

Components:

- Define **user needs** (e.g. based on TAM results, stakeholder assessments);

- Establish **peer-group of experts**;

- **Test and evaluate** proposed practices (regarding robustness, reproducibility, applicability, validity);

- **Compare** different practices on the same use case.

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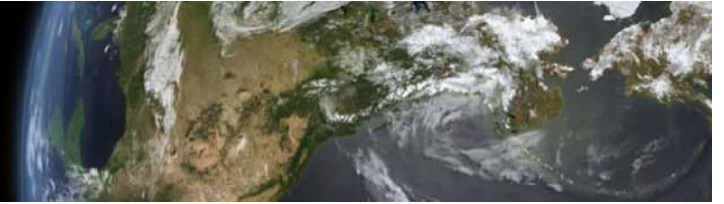
UN-SPIDER as a project partner

- The **UN-SPIDER Knowledge Portal** based on a sophisticated Content Management System contains an abundancy of relevant, well-stuctured, and interlinked information on the use of Space-based Information for Disaster Risk Management and Emergency Response.

- With dedicated **Outreach** activities via news, publications, and Social Media UN-SPIDER reaches a large and relevant audience.

- UN-SPIDER serves as a **Bridge** between providers of Space-based information and users for Disaster Risk Management and Emergency Response.

- The programme aims at **linking science and practice**.

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Thank you for the attention

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