

ESIP Evaluation Metrics
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GLCF, University of Maryland

The table below summarizes metrics suggested for ESIP project evaluation by the Glasmeier-Fellner Report created in the Metrics Working Group (illustrative metrics), and the University of Maryland ESIP Evaluation Team.

Related sources:

Design of an Evaluation Framework for NASA's Working Prototype Federation Program:

http://www.esipfed.org/restricted/working_groups/metrics_documents/Design%20of%20an%20Evaluation.pdf

University of Maryland ESIP Evaluation Resources:

<http://glcf.umiacs.umd.edu/documents/eval/>

UMd	Glasmeier-Fellner*
Acquisition of data	
Number of datasets acquired	
Volume of data acquired	
Availability of data	
Number of datasets available to users	
Volume of data available	
Number of processing services available (provided by staff; self-service on web)	
Number of algorithms, interface components or software modules	
	Accuracy of data
	Reliability of data
Access to data	
Number of users visiting the main homepage	Number of users
Number of users visiting other key pages	
Number of users acquiring data (by download, by ordering on the web, by mail/phone/email contact)	

UMd	Glasmeier-Fellner*
User experience	
	Speed of access to data
	Cycle time (from initiation of need to acquisition of required data)
	Prices to users
	Installation time and maintenance for users
Usability of different tools (performance, subjective satisfaction)	Feedback from users
	Access to user-specific data
Data usage	
For each dataset: number of users number of searches number of previews viewed number of data download requests number of order requests number of items retrieved + total volume	
Number or percentage of identified users	
Number of identified repeat users and new users	
Proportion by user type	Diversity of users
Usage patterns	
User characteristics	
Gender	
Type of community	
Areas of interest	
Web experience	
System experience	
Data use patterns	
Searching patterns	
Development of user community	
Number of users actively sending messages or calling the office	
Proportion of questions by topic: data itself access to data technical problems user interface	
Number of references in the GLCF to related products or people	
Number of participants in the user group meeting	Horizontal communication among users
Number of messages on online bulletin board	Horizontal communication among users

UMd		Glasmeier-Fellner*	
Dissemination of results by ESIP team			
Number of papers published about GLCF (technical, earth science)		Public awareness of earth science data applications	
Number of presentations made to the EOSDIS community or at conferences		Public awareness of earth science data applications	
Number of stories or mention in newspapers		Public awareness of earth science data applications	
		Use of ESIP data by scientists in other disciplines	
Outcomes			
Success stories			
Data products generated by users using your data		Use of data by users	
Papers written by data users		Use of data by users	
Adoption of technology by other data centers			
Technical performance			
Down time percentage		Technical performance	
Time to load applets		Technical performance	
Time to perform typical searches		Technical performance	
Availability on different platforms		Technical performance	
Time to process orders (self-serve, staff provided)		Technical performance	
		Development and adoption of system-level standards	
		Interoperability of data collection and distribution systems among suppliers	
		Rate of innovation (radical and incremental)	
Operation			
		Cost	

* Only Individual ESIP Metrics included, no WP-Federation-wide metrics