NASA Openscapes KPIs

August 1, 2024 - July 31, 2025

Openscapes LLC
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This report is publicly available at https://github.com/NASA-Openscapes/how_we_work.

Key Performance Indicators

These are defined in more below.

KPI Definition	Notes	KPI Achieved (8/1/24-7/31/25)
Teaching Numbers		
Number of Cloud participants in the JupyterHub	This reflects the number of hands-on workshops hosted by the NASA Mentors	530
Number of new teaching slides and tutorials	This reflects the Champions program lessons as well as new tutorial books. Note that we reuse lessons across workshops.	4
Number of talks “imagine what’s possible” conducted	This reflects talks that are not hands-on (and do not provide access JupyterHub)	6
Engineering Numbers		
Number of contributors to earthaccess	This is currently taken from GitHub contributor count	40
Number of dependents on earthaccess	This is taken from the GitHub “used by” count	205
Number of stars for earthaccess	This is taken from the GitHub count of users that opt-in to "starring" earthaccess and saving it to their favorites list	500
Number of contributors to Cookbook	This is also taken from GitHub contributor count	35
Number of contributors to GitHub docker image	This is also taken from GitHub contributor count	12

Number of items in workshop-planning GitHub Issues (open cross-DAAC planning)	This shows activities proposed and pursued across the community. It does not distinguish between which were completed versus considered but gives an idea of scope	152
Number of cloud infrastructure hackdays (2i2c, environments, etc)	This gives an idea of engagement and regular progress across the NASA Openscapes community goals	43

Define Key Performance Indicators

This is publicly available at https://github.com/NASA-Openscapes/how_we_work.

These are the updated 2024 definitions of Key Performance Indicators (KPIs) to evaluate the progress of the Enabling Science in the Cloud initiative including the impact on targeted communities. In the subsections below we define the KPIs and thinking behind them (including critique to consider whether these are the best way to capture what we want to), and then provide numbers for August 1 2024 - July 31 2025. For previous work about describing impact of NASA Openscapes beyond-the-numbers, see Communicating impact: NASA Openscapes by Lowndes, Robinson, & Rice, ESDSWG 2023.

Definition

Teaching numbers

- # participants in the workshops/champions using the Hub - this reflects the number of hands-on workshops hosted by the NASA Mentors. Current numbers come from the Shared Password Feature we co-developed with 2i2c, and no longer from the GitHub Teams approach that we used in 2024 (which only saw a small increase since this method was only lightly used in 2025. Source: https://github.com/orgs/nasa-openscapes-workshops/teams, private)
- # new teaching slides and tutorials - this reflects the Champions program lessons (which we did not lead yet in 2025) as well as two new tutorial books. Since we focus so much on reuse and adapting, it can be difficult to decide what to include. Also, do you count a workshop or the individual tutorials within it? Below we have included the number of individual tutorials.
- # talks “imagine what’s possible” - this reflects talks that are not hands-on (and do not provide access to 2i2c JupyterHub). It’s important to share the science and teamwork of what’s possible

Engineering numbers

- # contributors to earthaccess - this is from GitHub contributor count, which has been criticized for not including contributions that are notGitHub commits. For example, scientists who have posted Issues/Discussions on GitHub asking questions that have led to engineering to fix a bug or add a feature are not included on this list.
- # dependents on earthaccess - this is from the GitHub “used by” count, which GitHub has started tracking to network across GitHub projects.
- # stars for earthaccess on GitHub - this is an indication of how many people have voluntarily found earthaccess useful enough to add a star, which means it is also now listed in their favorites so that they can come back to it again.
- # contributors to Cookbook - this is also from GitHub contributor count, with challenges listed above
- # contributors to Hub docker image - this is also from GitHub contributor count, with challenges listed above
- # items in workshop-planning GitHub Issues (open cross-DAAC planning) - this shows activities proposed and pursued across the community. Does not distinguish between which were completed versus considered but gives an idea of scope
- # earthaccess and cloud infrastructure hackdays (2i2c, environments, etc) - this gives an idea of engagement and regular progress across the NASA Openscapes community goals

Numbers & sources

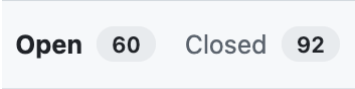
Teaching numbers

- 530 Cloud users in 2025
    - This increased from 367 users last year. There have been 937 distinct users ever.
- 4 new teaching slides and tutorials.
    - Note that we reuse and build on previous tutorials so these numbers are small for that reason. Additionally, we have postponed the 2025 Champions Cohort so those lessons are not included here.
    - 2 from source: BioSpace2025
    - 2 from source: 2025 AMS Earthdata Workshop for Increasing Participation of Minority Serving Institutions in Earth Science Division Surface-Based Measurement Networks (IPMSI)
- 6 talks “imagine what’s possible”
    - source: SOW deliverables

Engineering numbers

- 40 contributors to earthaccess on GitHub
    - source: https://github.com/nsidc/earthaccess, accessed July 1, 2025
- 205 dependents on earthaccess (“used by”) on GitHub
    - source: https://github.com/nsidc/earthaccess, accessed July 1, 2025

- 500 stars for earthaccess on GitHub
    - source: https://github.com/nsidc/earthaccess, accessed July 1, 2025
- 35 contributors to Cookbook
    - source: https://github.com/nasa-openscapes/earthdata-cloud-cookbook, accessed July 1, 2025
- 12 contributors to Hub docker image
    - source: https://github.com/nasa-openscapes/corn, accessed July 1, 2025
- 152 items in workshop-planning GitHub Issues (open cross-DAAC planning)
    - source: https://github.com/NASA-Openscapes/workshop-planning/issues



- 43 earthaccess and cloud infrastructure hackdays (2i2c, environments, etc)
    - source: earthaccess (n=23) https://github.com/nsidc/earthaccess/discussions
    - source: 2i2c (n=9) https://github.com/Openscapes/openscapes.cloud/discussions
    - source: JupyterHub hackdays led by Tasha Snow (n=11)