

Object-Oriented Software Development with Agile Scrum

Metadata Search Application

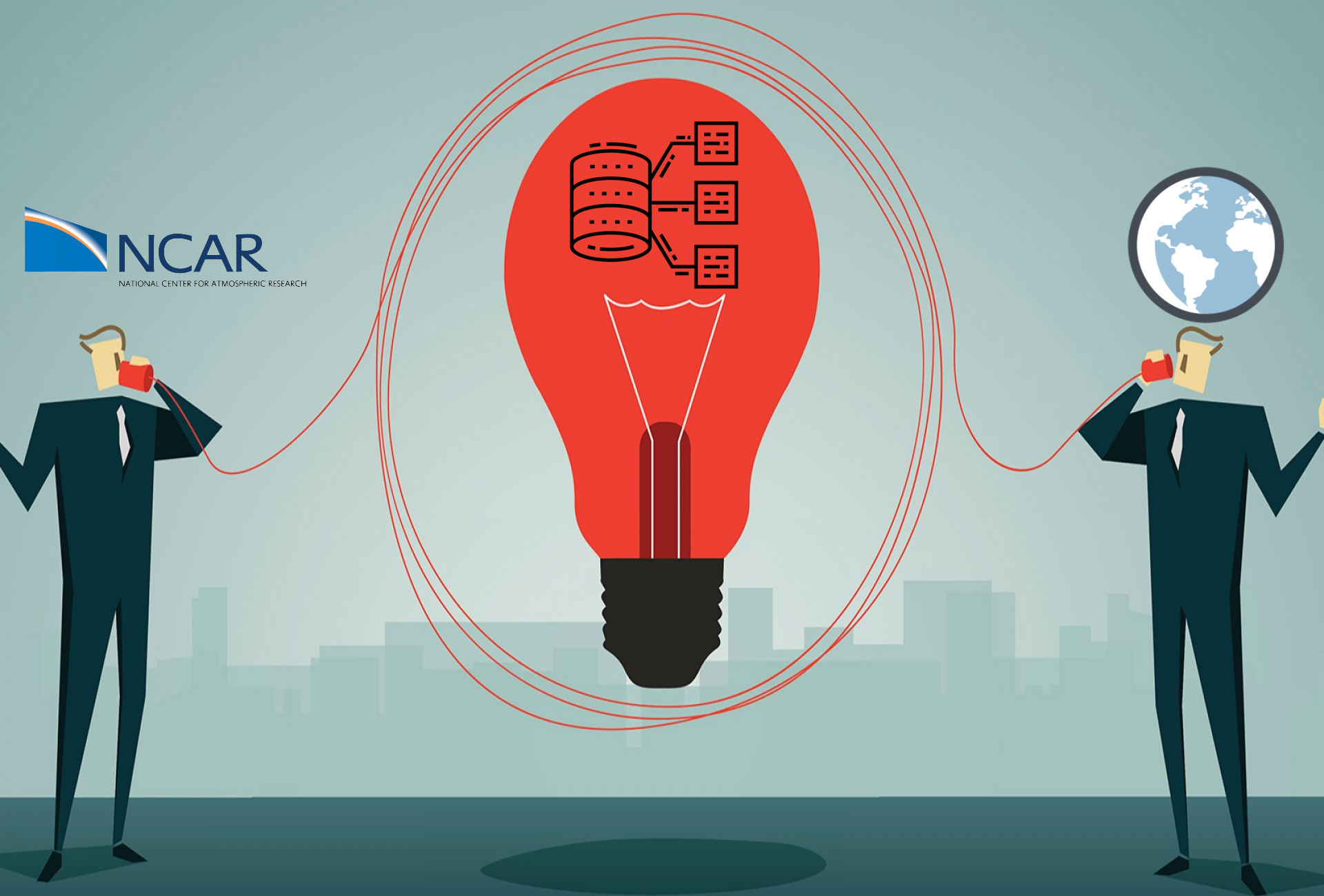
Elaheh Jamali,
Intern, SIParCS

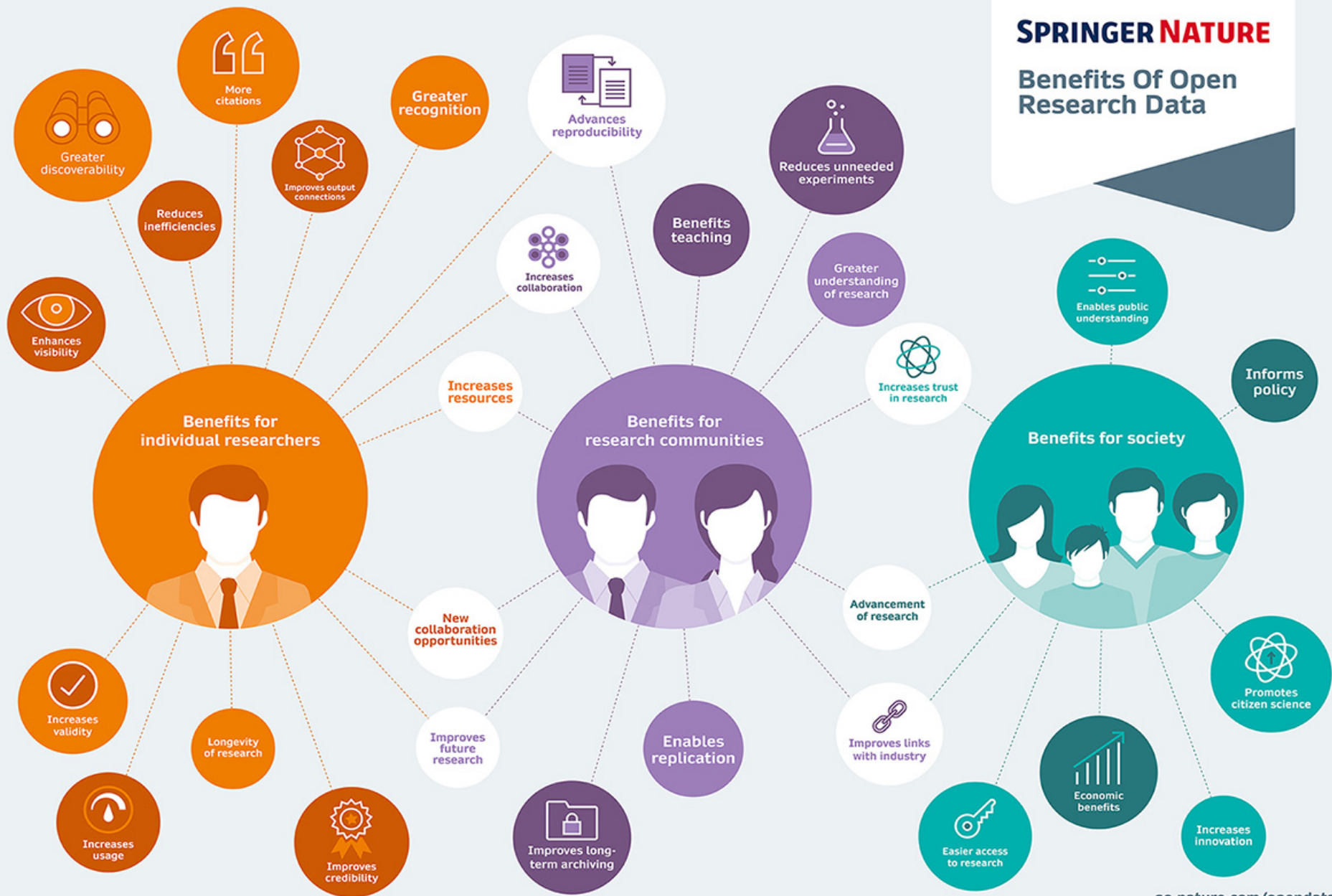
Nathan Hook, Eric Nienhouse,
Christy Grant,
Mentors, Sage
July 29, 2020



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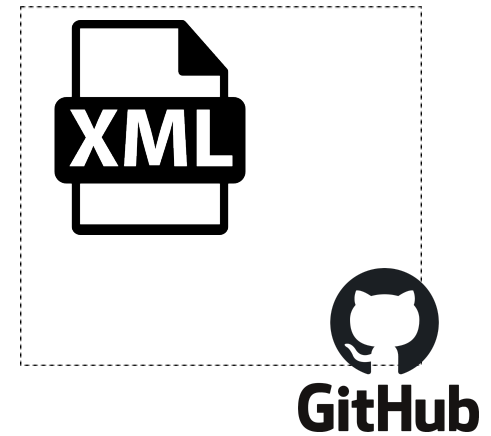
- Introduction and Motivation
- Outcome -> Metadata Search Application
- Methods
 - Agile with Scrum
 - Object-Oriented Programming
- Acknowledgements
- Resources

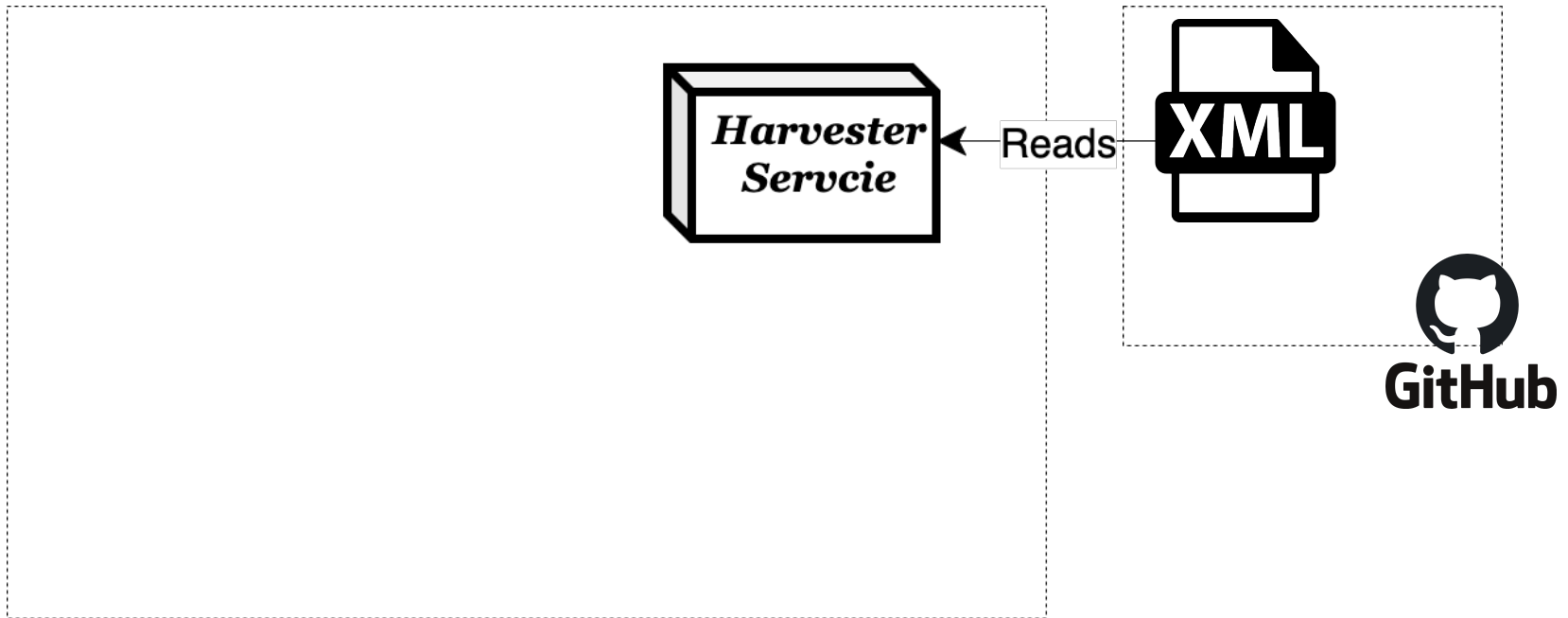


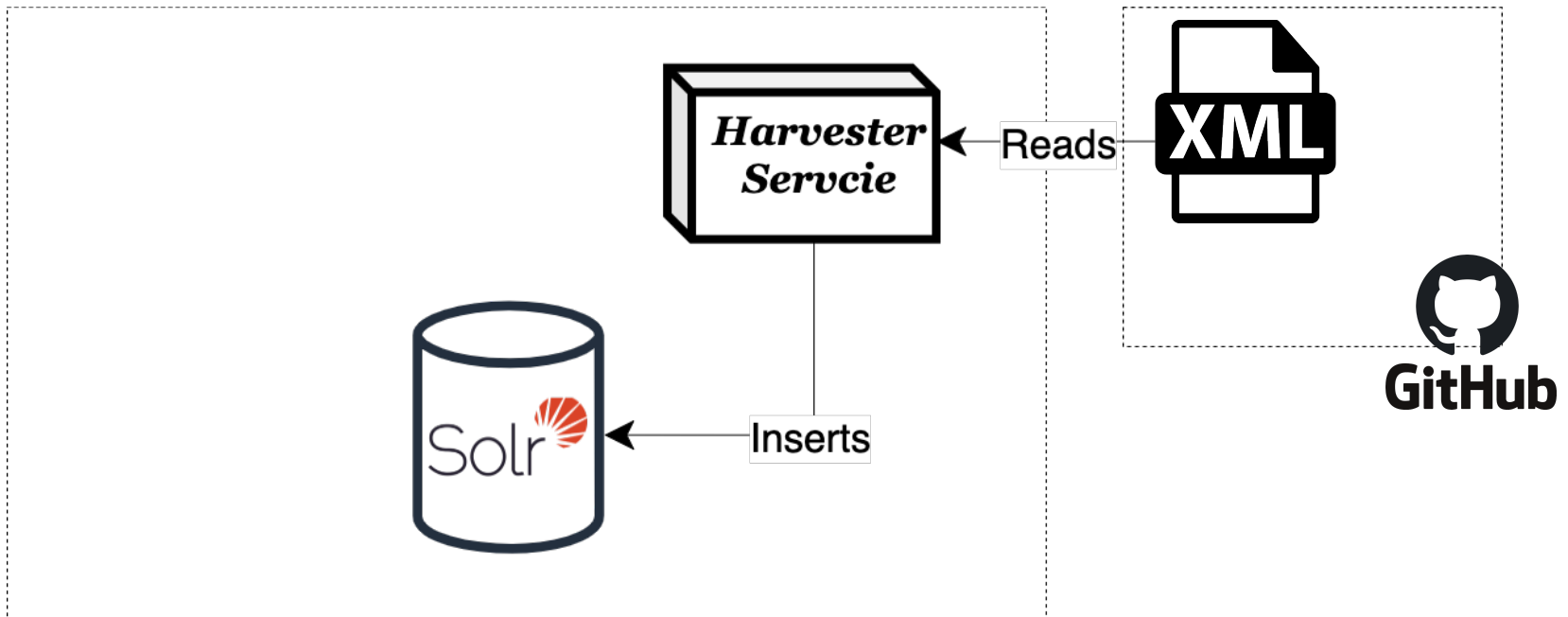


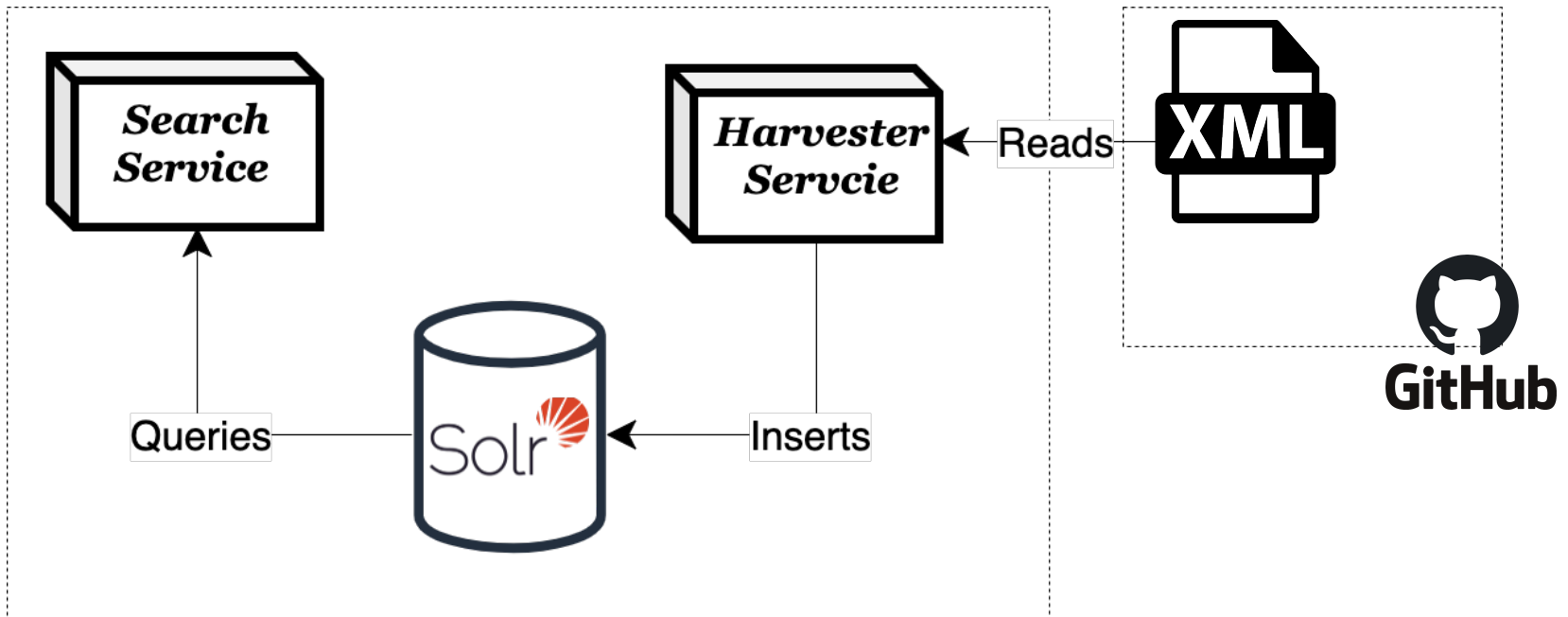
go.nature.com/opendata



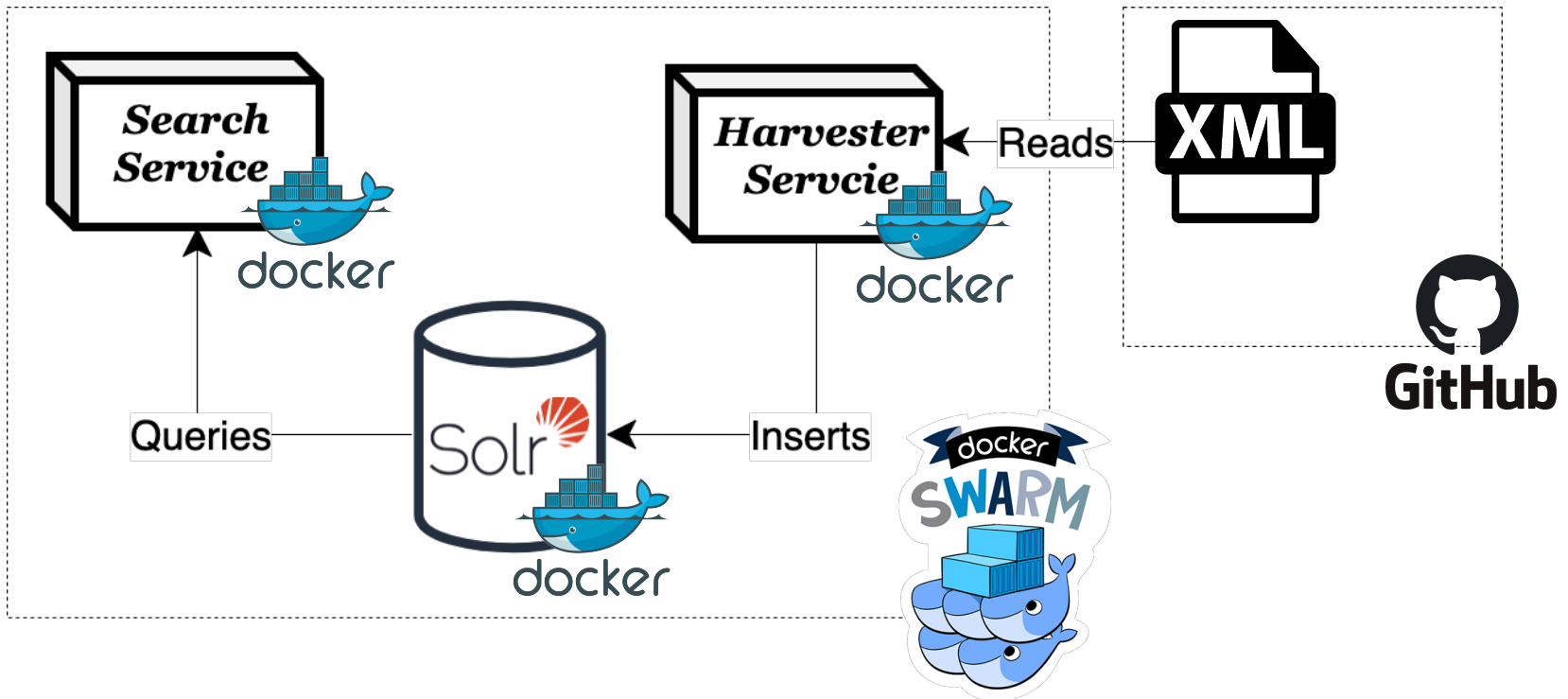




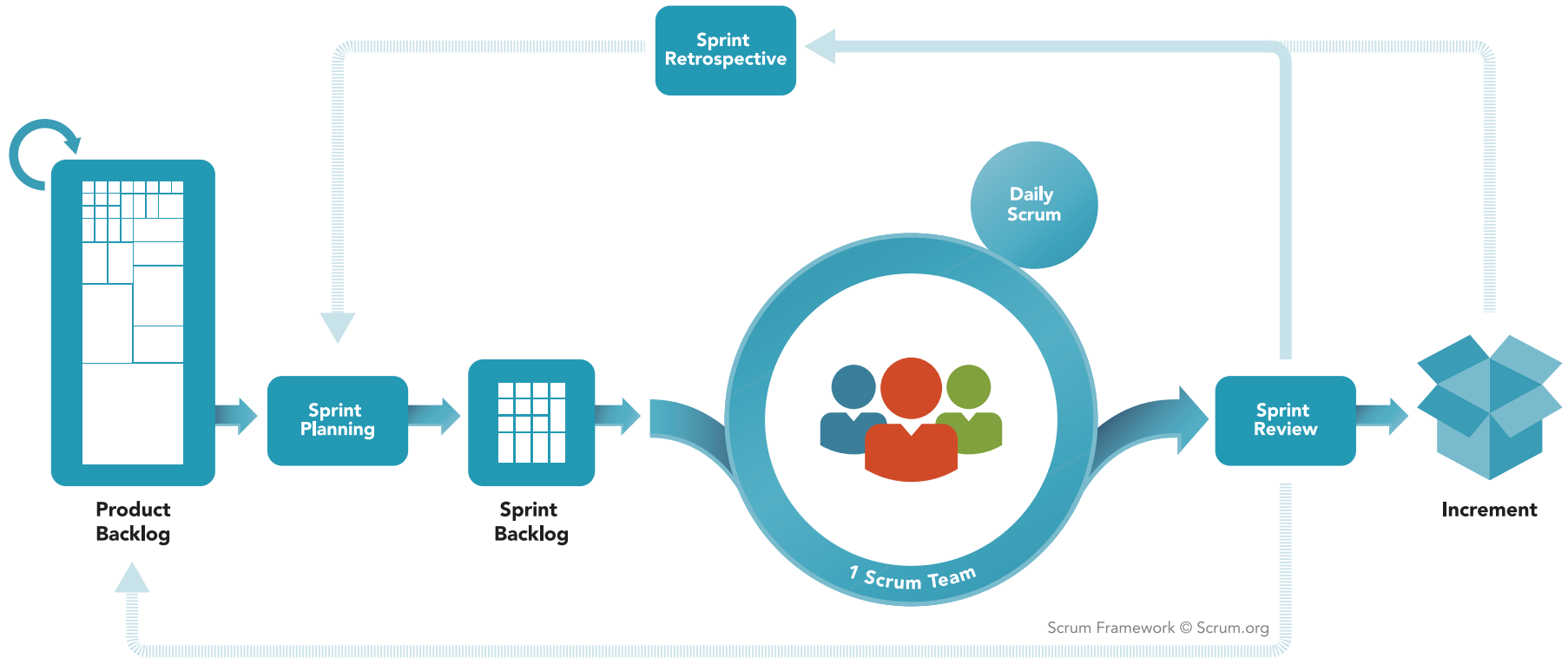




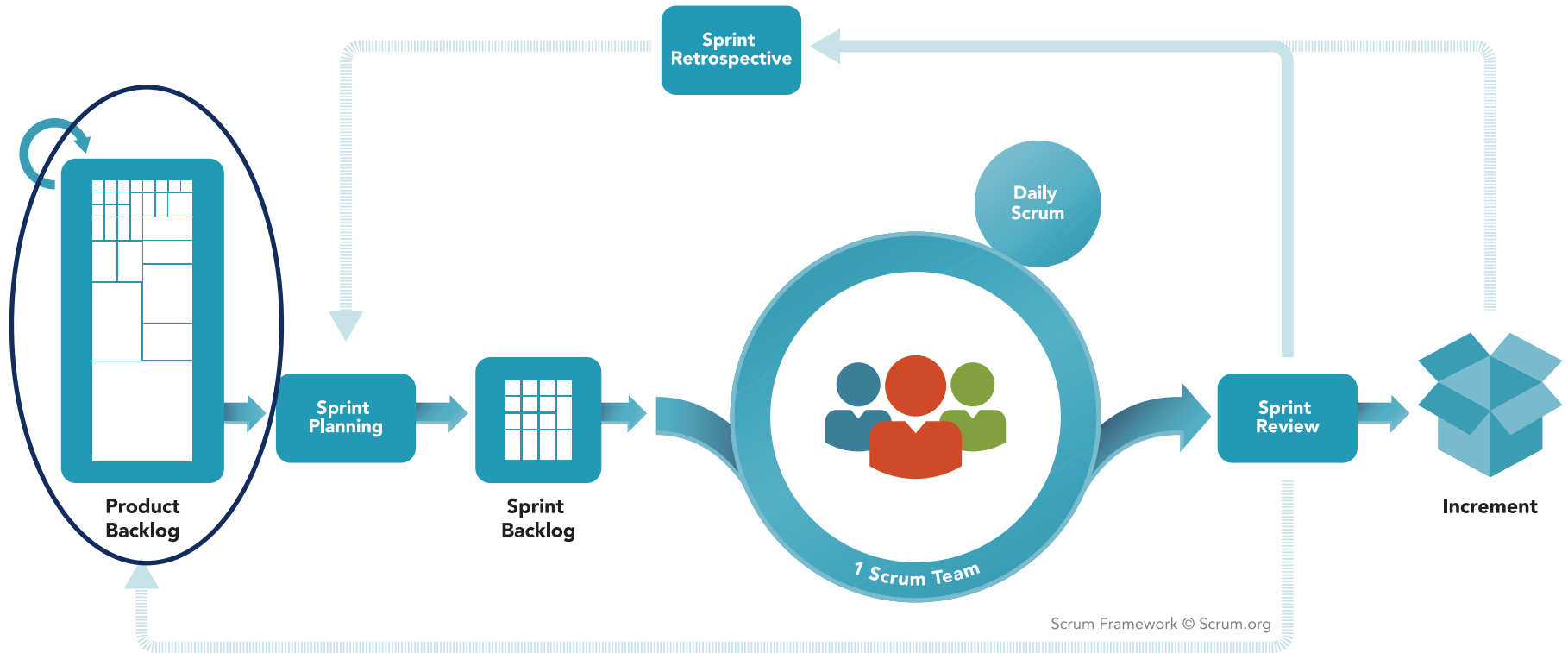
SOLUTION



SCRUM FRAMEWORK



SCRUM FRAMEWORK



Backlog



QUICK FILTERS: [Only My Issues](#) [Recently Updated](#)

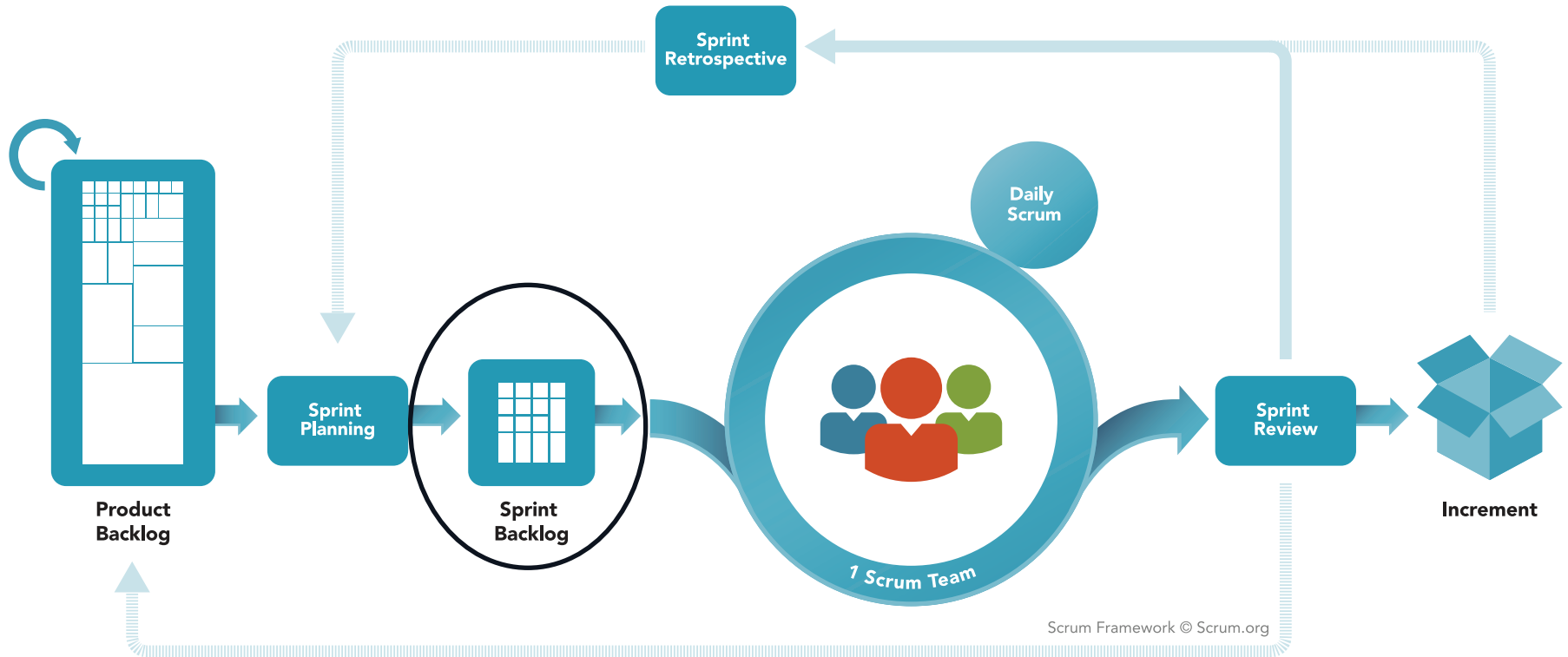
VERSIONS
EPICS

Backlog 21 issues

Create Sprint

	✔ DSETSP-98 Harvester Adds Github Xml Url Location to Solr Record		☐
	✔ DSETSP-78 ISO XML Metadata Can Be Viewed	Search Application	☐
	✔ DSETSP-99 Unexpected doi search results		☐
	✔ DSETSP-80 Explore Synonymns	Search Application	☐
	✔ DSETSP-90 Additional Metadata Can Be Viewed for Search Result	Search Application	☐
	✔ DSETSP-69 Unable to Report Errors to Developers on Exception	Automated Infrastr...	2
	✔ DSETSP-70 Harvester Requires Human Intervention to Run	Automated Infrastr...	20
	✔ DSETSP-66 Blank fields should not be able to go to Solr	Harvest Metadata	☐
	✔ DSETSP-89 Partial Searches on DOI Field	Search Application	☐
	✔ DSETSP-79 Search Engine Can Access Schema.org Metadata for Asset	Search Application	☐
	✔ DSETSP-53 Unable to Search or Facet on Resource Type	Search Application	3
	✔ DSETSP-61 Facet on Keywords	Search Application	☐
	✔ DSETSP-81 Search Provides Suggestions	Search Application	☐
	✔ DSETSP-88 Highlight Search Terms in Results	Search Application	☐
	✔ DSETSP-85 Explore Results Ranking	Search Application	☐

SCRUM FRAMEWORK



DSET Sprint 18

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To Do

DSETSP-87

Deploy Search Application to Sagedockerdev

Automated Infrastruct...

DSETSP-93

Display Version Number on Page Footer

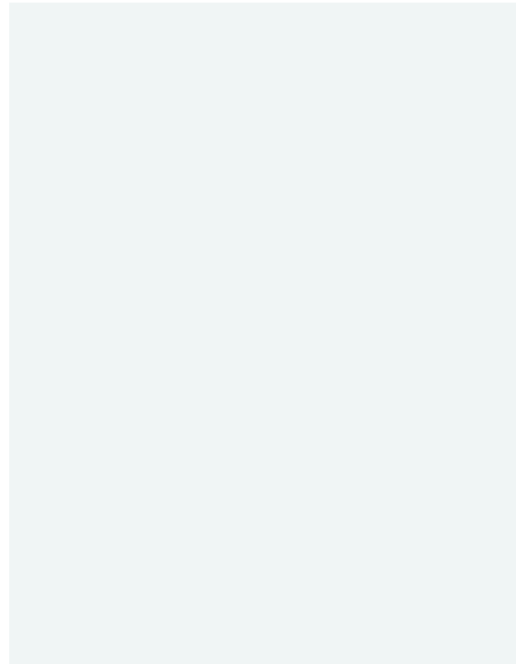
Search Application

DSETSP-94

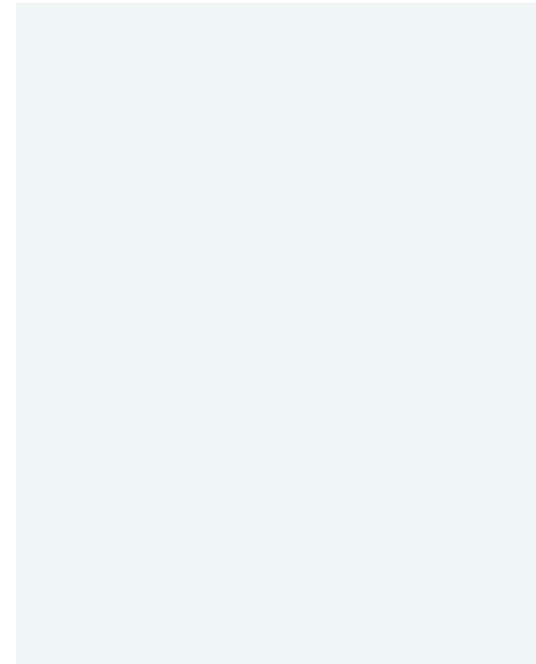
Display UCAR and NSF Policy to Page Footer

Search Application

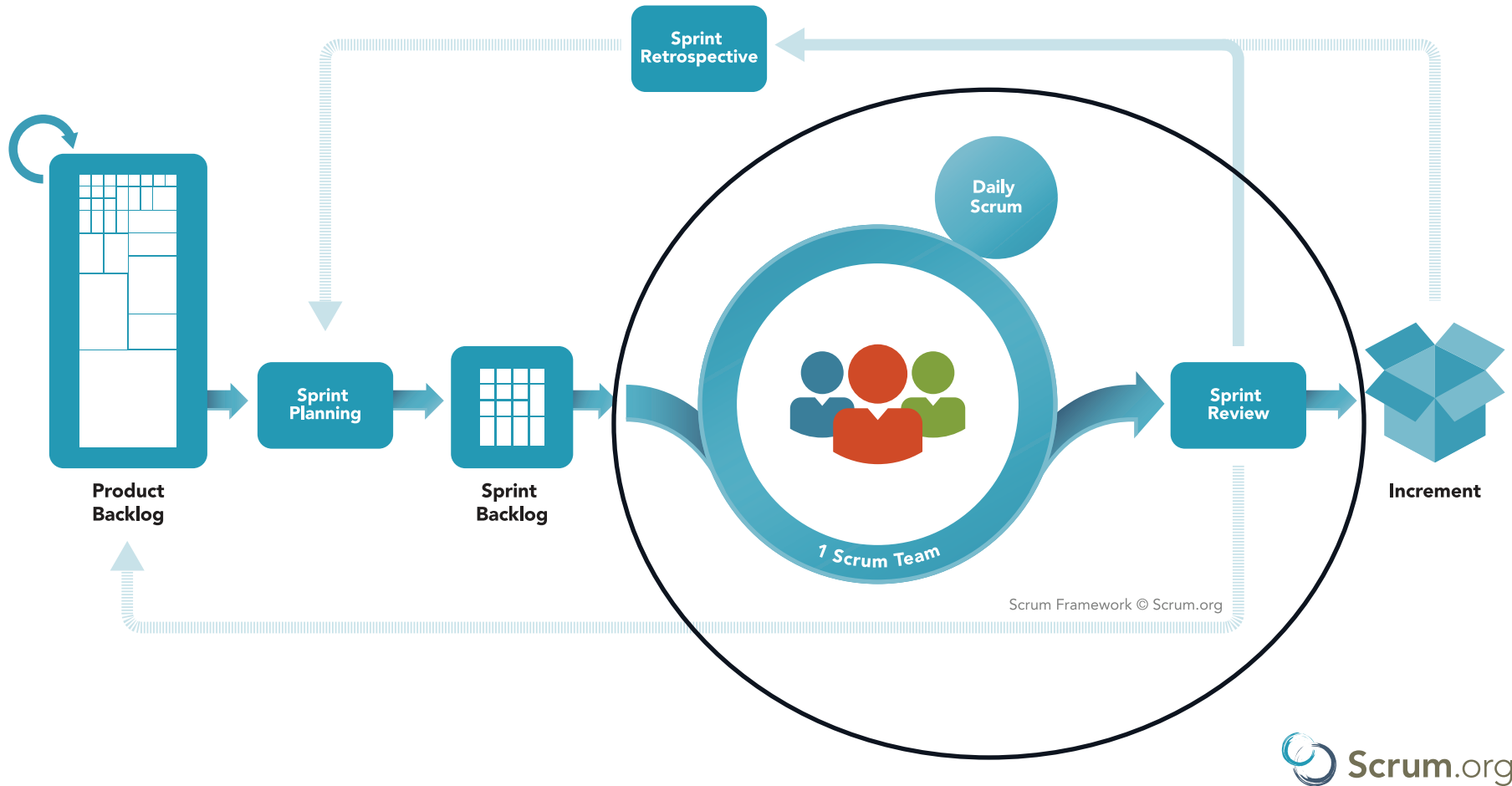
In Progress



Done



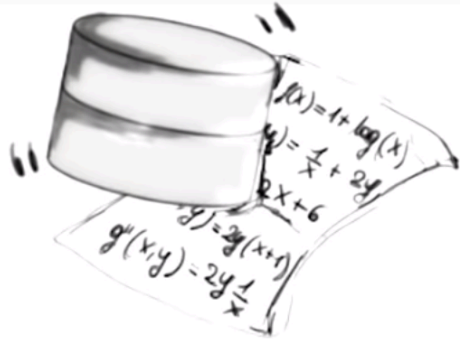
SCRUM FRAMEWORK



What Is Object Orientation?

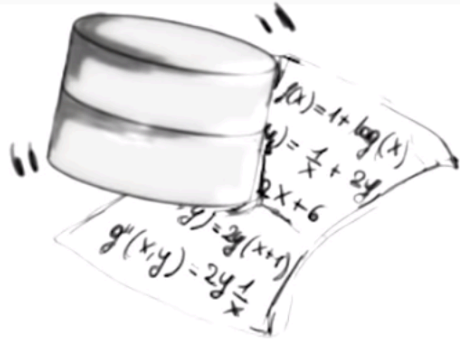


What Is Object Orientation?



Data Over Function

What Is Object Orientation?

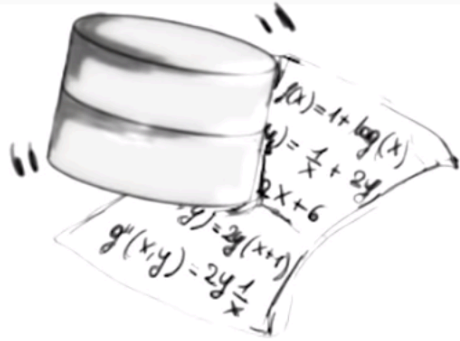


Data Over Function



Polymorphism

What Is Object Orientation?



Data Over Function

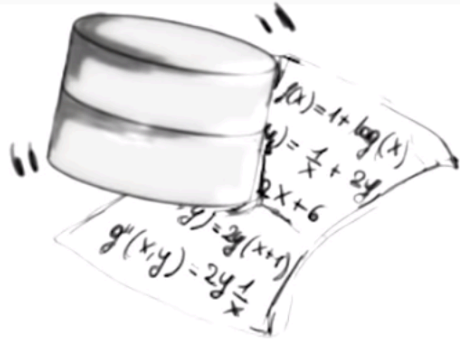


Polymorphism



Encapsulation

What Is Object Orientation?



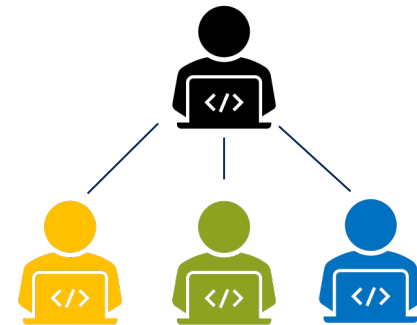
Data Over Function



Encapsulation

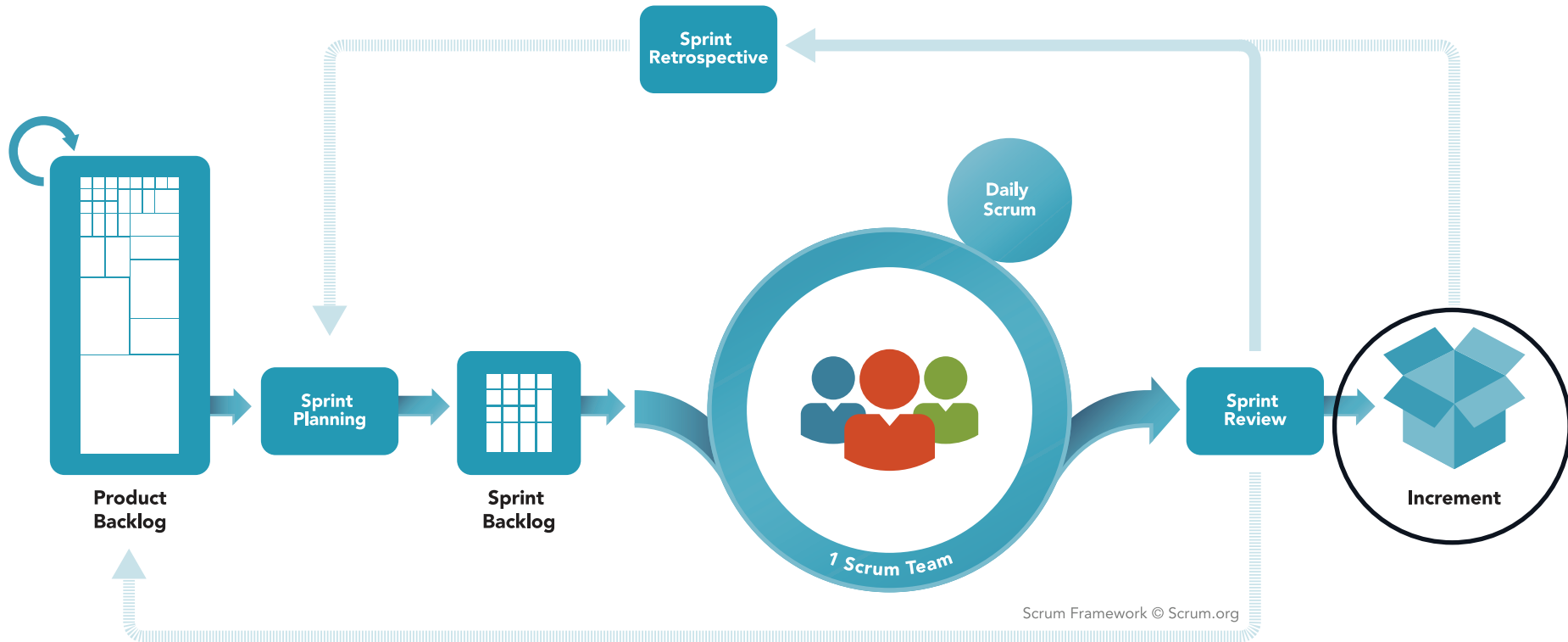


Polymorphism



Inheritance

SCRUM FRAMEWORK



Minimum Viable Product



The Metadata Search Application

Welcome to Metadata Search Engine!

This is a search engine to access digital assets from all NCAR/UCAR.

Version 0.0.2-20200720-223405

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The Metadata Search Application



Welcome to Metadata Search Engine!

This is a search engine to access digital assets from all NCAR/UCAR.

Search

313 Results Found

[CAC Monthly Pacific Island Precipitation](#)

This dataset contains monthly mean rainfall amounts from Malaysia, islands in the central Pacific Ocean, and Hawaii.
dataset

[Sadler's Pacific Island Precipitation, monthly 1965-1972](#)

This dataset contains monthly precipitation values on a 2.5-degree grid covering the tropical Pacific Ocean from 30S latitude to 30N and from 105E longitude to 290E. Grids are available from January 1965 to December 1972. Monthly station data with various periods of record, ranging from 1874-1973...
dataset

Acknowledgements

SIPARCS Program Leads

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Project Mentors and SAGE Team

Nathan Hook, Eric Nienhouse, Christy Grant, Saquib Aziz Khan



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CISL

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Resources

Images provided by:

- <https://www.scrum.org/resources/scrum-framework-poster>
- <http://www.springernature.com/gp/authors/research-data-policy>