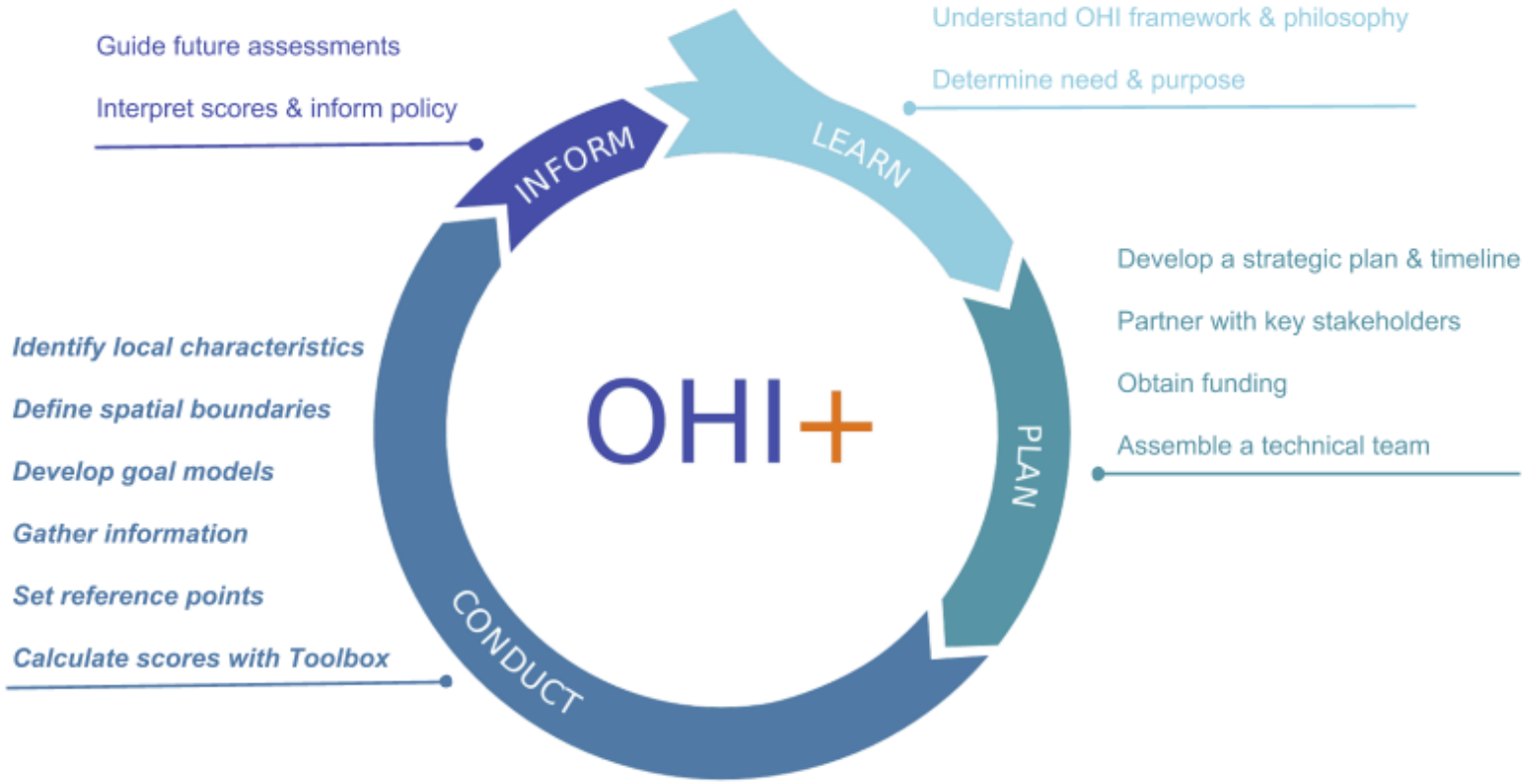
Introduction to **Conduct Phase**

Ocean Health Index

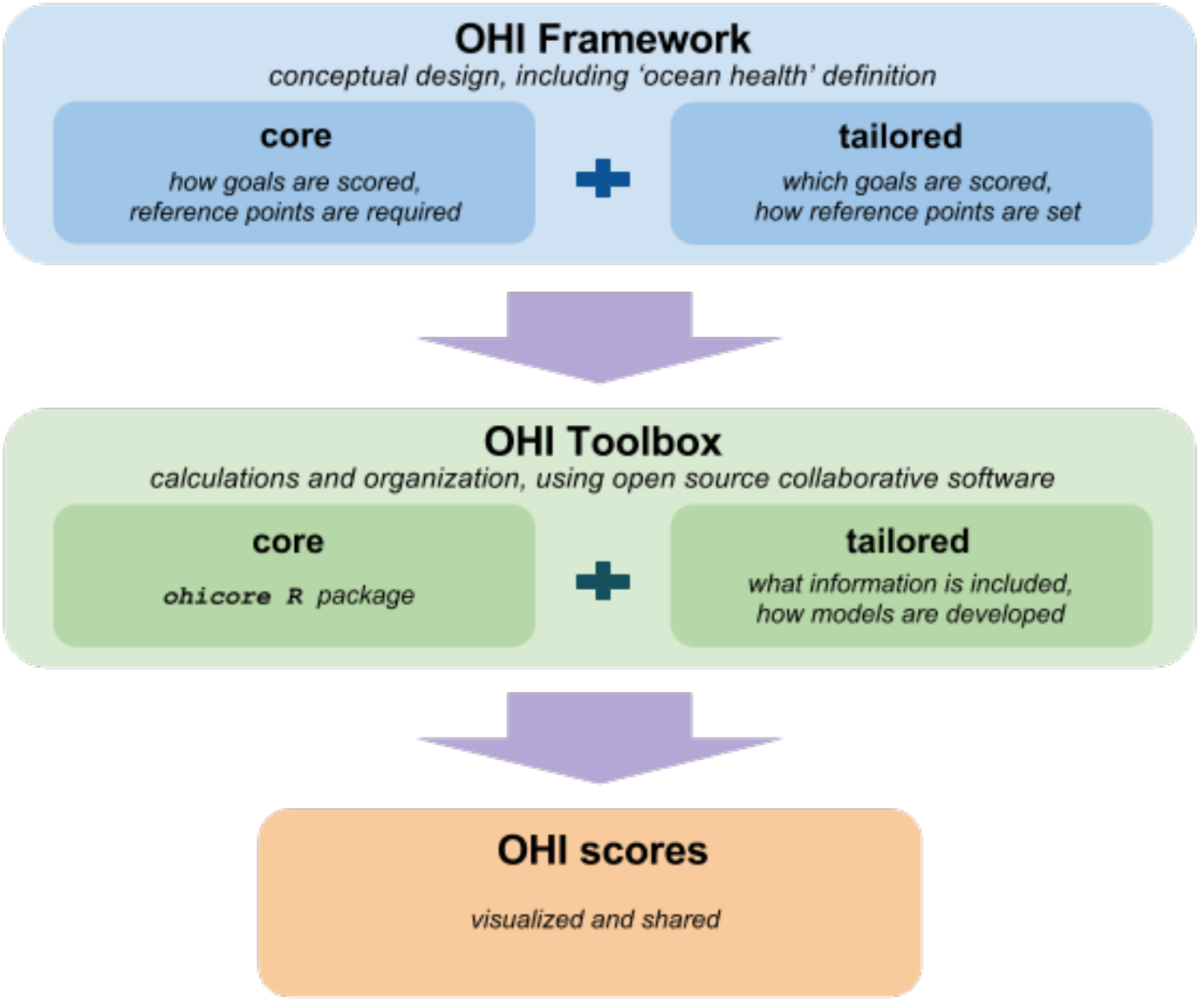
OHI-Science Team

January, 2016

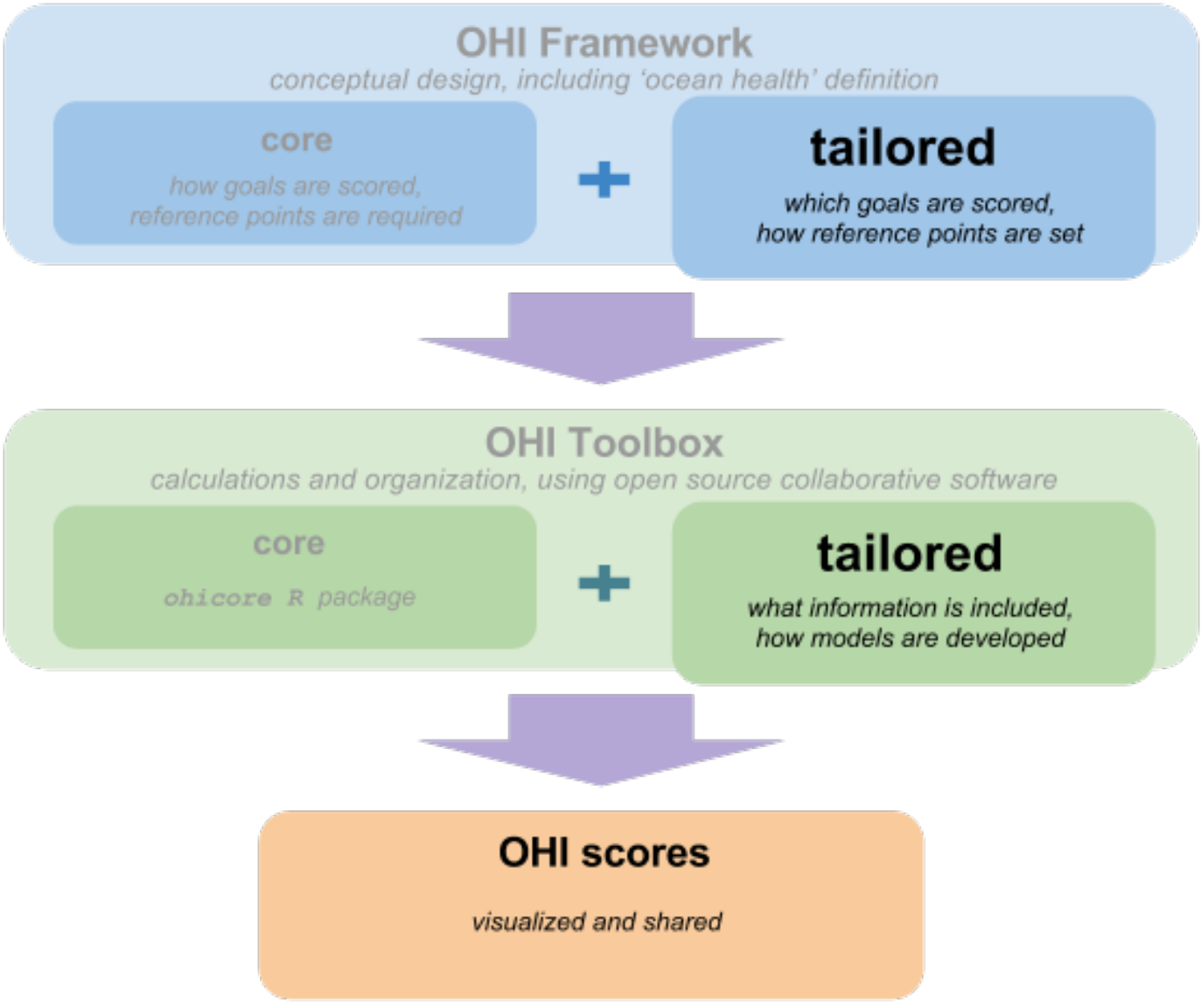
Where you are in OHI+



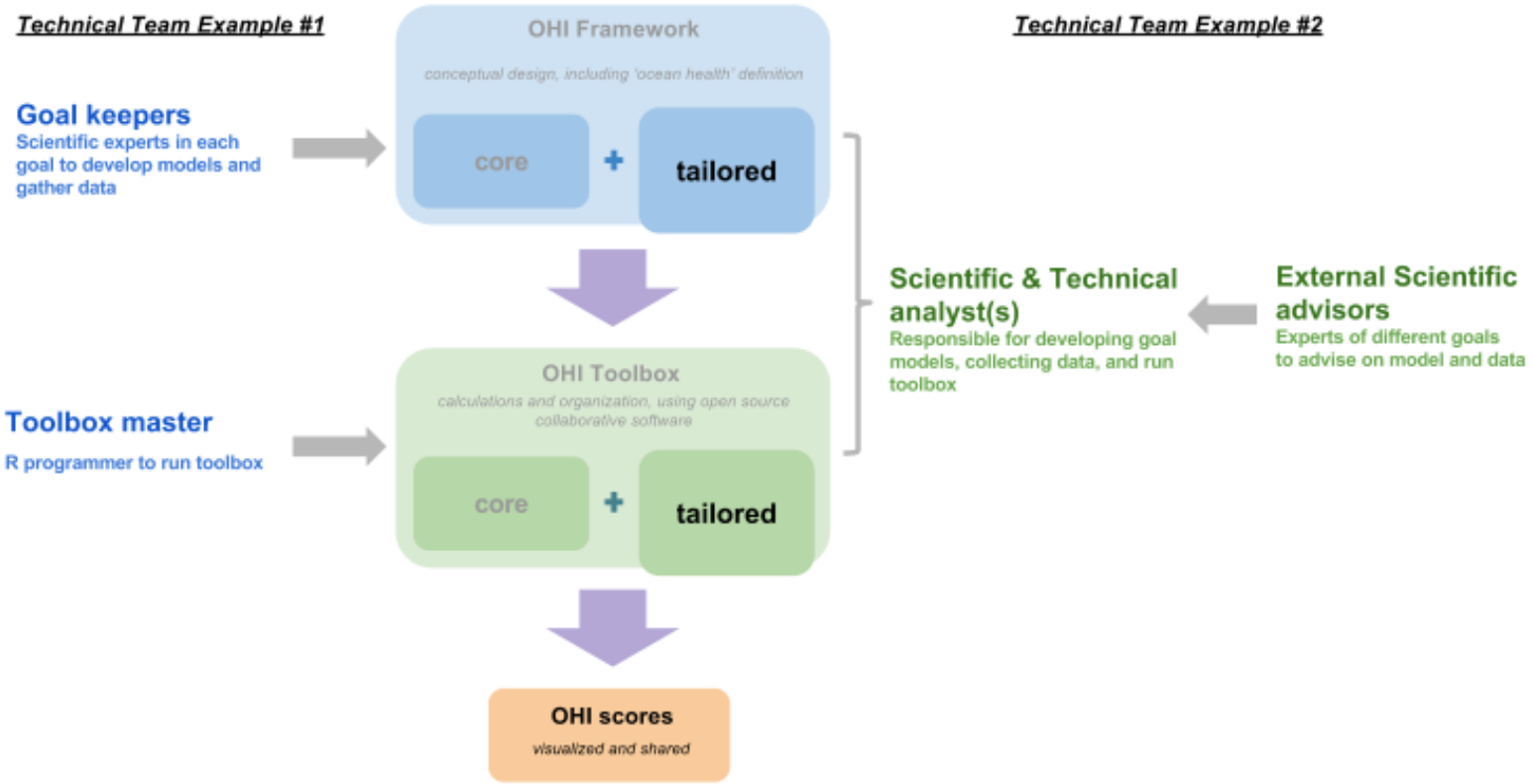
OHI Framework



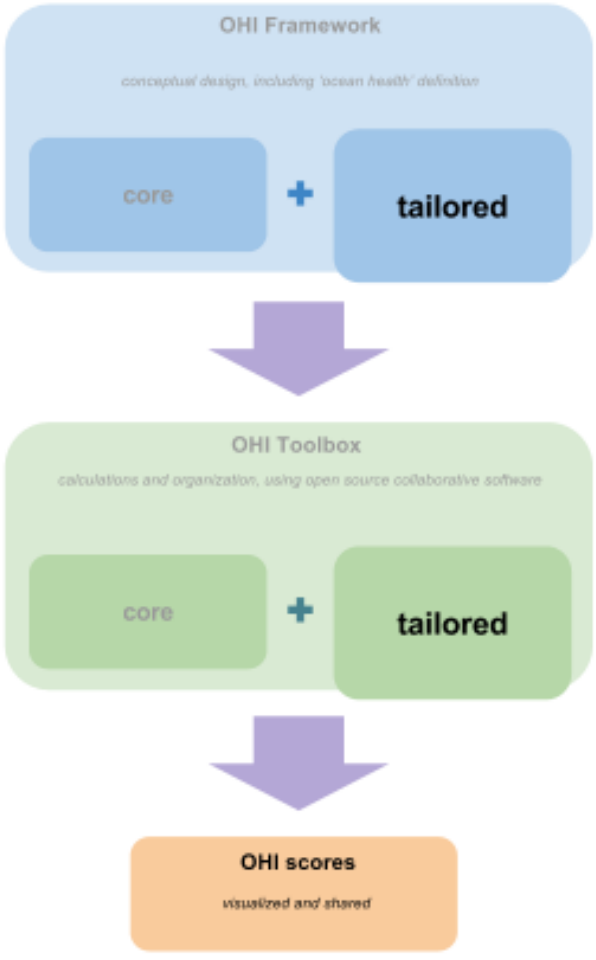
OHI Framework - Tailored



Technical Team Structure



OHI Workflow



Define boundaries

Select and develop goal models

Gather data, pressures & resilience

Set reference points

Request an OHI+ repository

Format, store, and register data

Modify goal models

Calculate scores

Create flower plots and maps

Report results

***Note** -- this not a strict timeline: the framework building and analysis are not a linear process, but iterative. You will likely develop and revisit different parts simultaneously.*

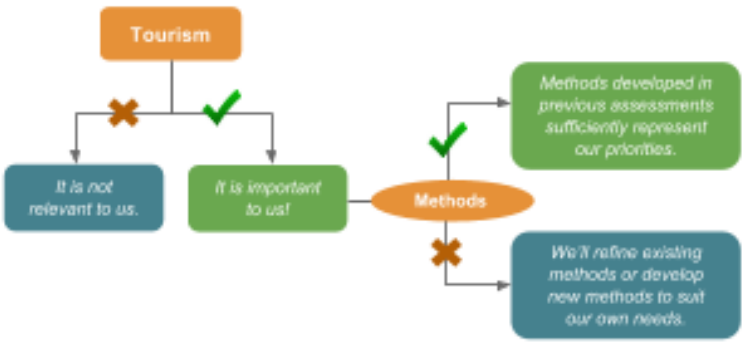
Framework

Conceptual planning, model building, and data gathering

Keep in mind at all times these **Best Practices** (see publication or Manual)

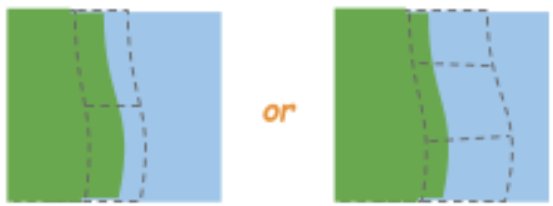
Build the conceptual framework

Which benefits does the ocean provide in your local area? What are key ecological, social, and economic characteristics and priorities? Identify these and build a conceptual framework before gathering existing information.



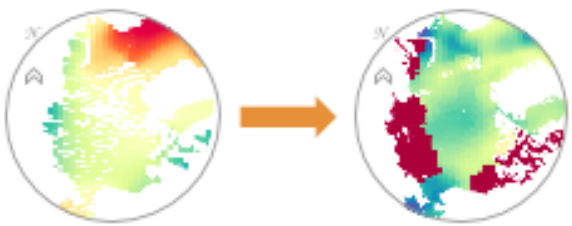
Define spatial boundaries

The boundaries of your assessment should be a driven by the boundaries where information is reported and policy decisions are made.



Remain true to the framework

Existing, available data can be limited or not ideal. But it is possible to fill gaps, use proxy data, or incorporate intermediate models. But stick to your conceptual framework and priorities to get a complete picture of ocean health.



Document and share the process

Methods developed and lessons learned through the assessment process should be shared with future assessments. Methods should be reproducible in one location through time and repeatable in different locations. This requires transparency and communication throughout the assessment.

Framework: Define Spatial Boundaries

Calculations happen at the region level

Judicial boundaries at decision-making scales are preferred

Example: How to Turn Land Boundaries to Marine Boundaries

1. Start with land-based boundaries

2. Draw offshore buffers for each region

3. Offshore buffers overlap

4. With the Thiessen Polygon approach, the overlap is divided...

5. ...to produce the final borders between the regions

Framework: Select Goals & Develop Goal Models

Select from *Ten commonly assessed goals*

See **Conceptual and Practical guidance** for each goal (Manual - Appendix 1)

- Understand each goal, stick to the definition but think creatively how to represent each goal (Best Practice #1 and #3)
- Work on different goals together
- Evaluate **reference point, pressures, resilience** while collecting data

Send **data and model description** using templates (Appendix 2 & 3)

Framework: Gather Data, Pressure, and Resilience

Gather **open-access** data that will be **updated regularly**

Data for **Status, Pressures, and Resilience** for each goal

Use appropriate **temporal and spatial scales**

High quality data collected by respected organizations under certain protocol

If can't find ideal data, use **proxy data** or **gapfill**

Framework to Toolbox

Now you have:

- defined spatial boundaries
- developed goal models
- collected data

You can request an **Assessment Repository** and start using the **Toolbox**

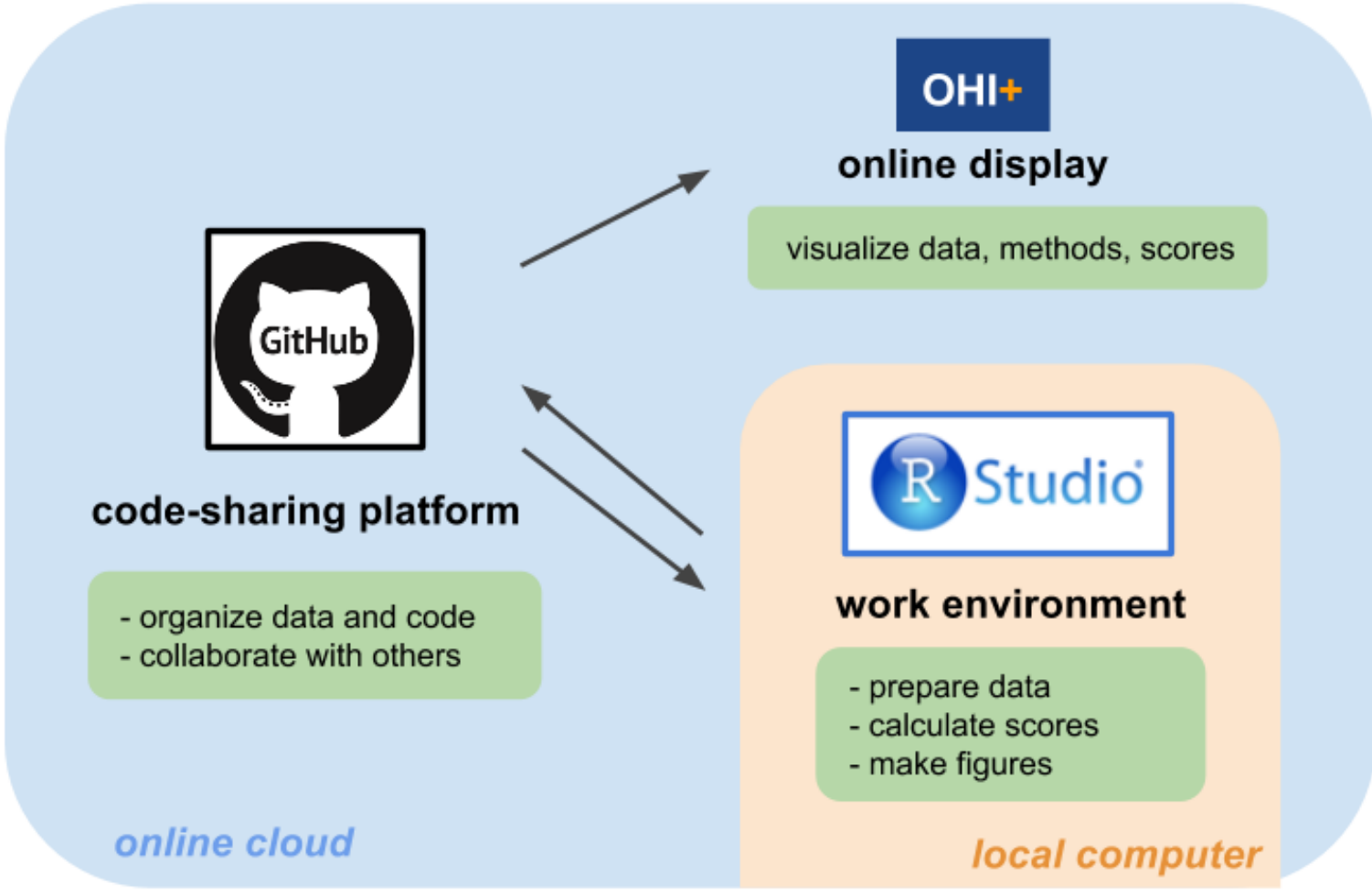
- *Repository* is where all the data are stored, managed, and calculations occur

  Github-based

- *Toolbox* is the software packages for calculations

  Github and R - based; Open Source

Toolbox: Github - R



Toolbox: Data Preparation

Format, Store, and Register Data

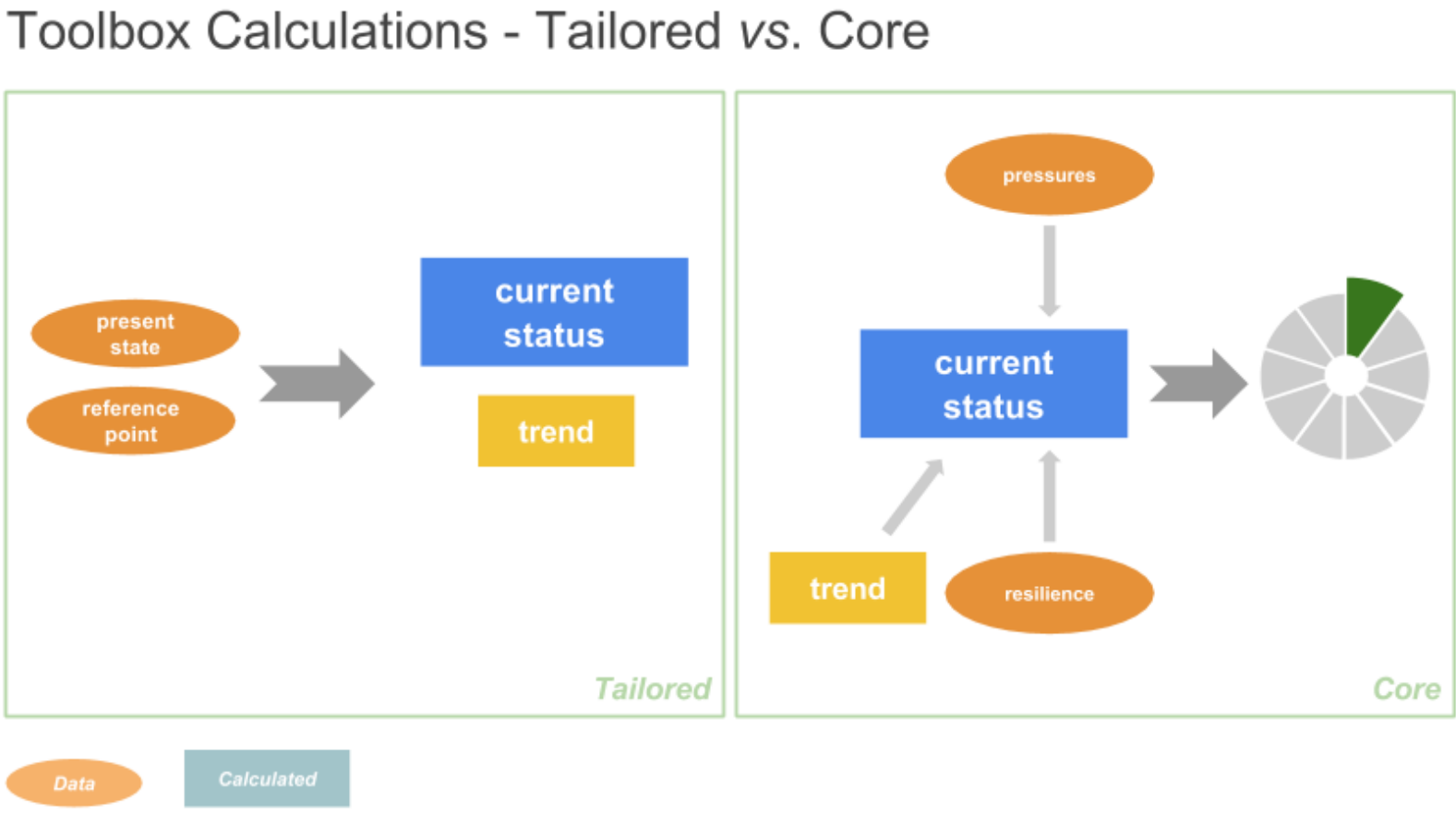
Script preparation process as much as possible for future assessments

Toolbox require specific formats

- *.csv*
- long formats
- rescaled to 0-1

Register data to be called upon during calculation

Toolbox: Modify Goal Models & Calculate Scores



Main Resources

ohi-science.org: main site for all OHI+ related topics

Manual: conceptual and technical guidance for each step

Other OHI+ Projects: materials from completed and on-going projects

Forum: on-line community for OHI+ practitioners to connect and learn from each other

Turorials: presentations

Contact our team: `info@ohi-science.org`