

An inclusive, collaborative approach to developing oceanography data science skills.

OHW is an international initiative to build an inclusive community focused on data and software proficiency in oceanography.

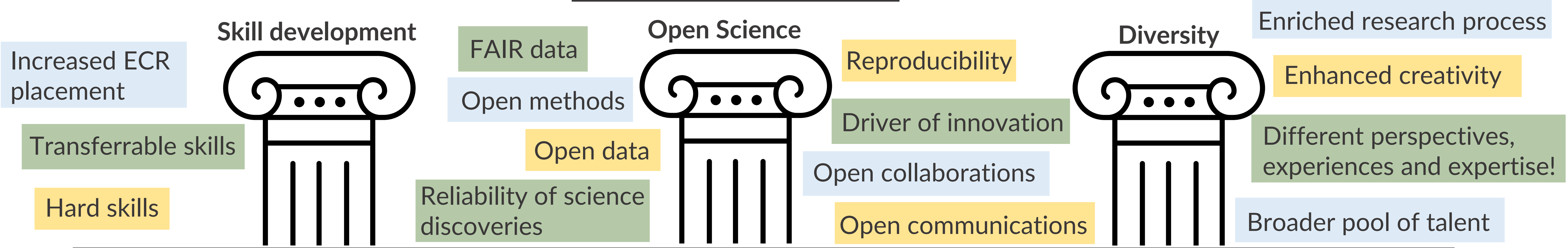
OHW has hosted annually in Australia since 2021.

This work provides an overview of these approach and lessons learnt.

Catherine Mitchell (Bigelow), Filipe Fernandes (IOOS), Joseph Gunn (NSF NCAR), Alex Kerney (GMRI), Wu-Jung Lee (UW), Emilio Mayorga (UW), Thomas Moore (CSIRO), Nick Mortimer (CSIRO), Natalia Ribeiro (IMOS).



What is OHW About?



OceanHackWeek grew out of a desire to:

- 1) provide an explicit on-ramp for ocean sciences researchers to acquire computational and data science skills necessary to advance modern data-intensive oceanographic research;
- 2) cultivate an open and sharing culture among ocean sciences researchers across the diverse spectra of technical expertise, career stages, educational backgrounds, personal experiences and identity;
- 3) promote open science and reproducible research practices, as well as the FAIR (Findable, Accessible, Interoperable, Reusable) data principles.

GOOD NEWS!!

The feedback shows that OHW has achieved all 3!

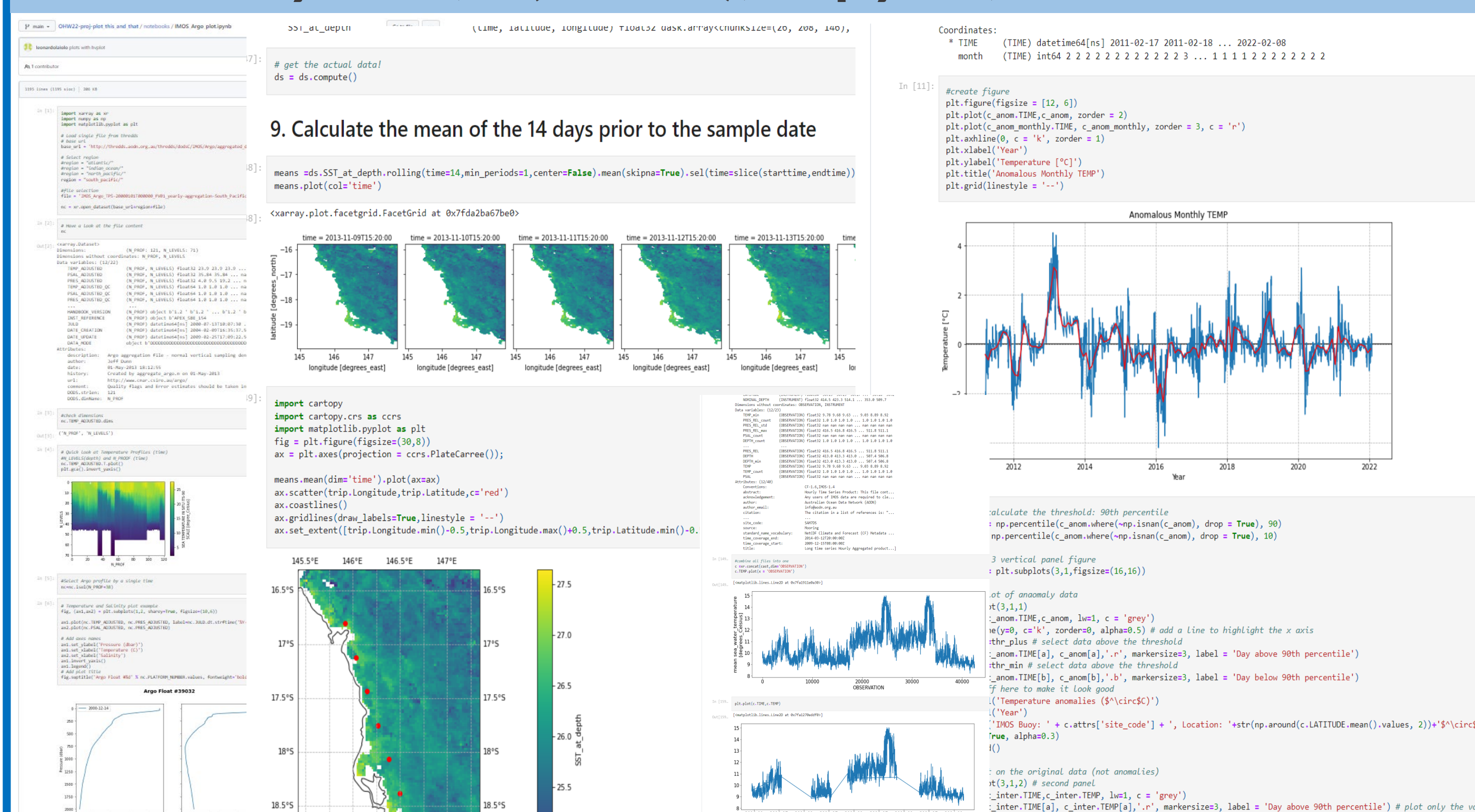
OHW Structure

- **OceanHackWeek** consists of hands-on tutorials, visual presentations, and collaborative hack projects throughout a 5-day period.
- **Tutorials** cover a variety of subjects: e.g. data assess, packages, machine learning, conda environments, reproducible science.
- **Projects** are proposed by participants, who pitch them to the larger group. People divide themselves to work in the projects according to their interest, which results in a variety of skill levels. At the end of the week, the group responsible for a project, gives a final presentation on what was achieved.
- **Social activities** are also part of the week. It is an important part to build the right atmosphere. Work and fun go hand in hand.

Recommendations

- **Adaptability:** The 5-day immersive hackweek model can be modified to fit different time frames, settings, or formats, including within research teams or institutions.
- **Inclusivity:** Foster productive teams by setting clear expectations, discussing effective teamwork, and implementing a code of conduct, funding travel for those without access to funds.
- **Customization:** Tailor tutorials to your audience, considering whether to use a common approach or split into groups based on specific programming languages or tools.
- **Computing Environment:** Choose a computing setup that aligns with your workshop goals, whether it's a common environment for efficiency or individual setup guidance.
- **Hybrid Workshops:** Ensure clear guidelines, dedicated facilitators for each project, and separate focus for in-person and virtual components.

Python, R(studio), Jupyter, Git Hub



Testimonials

"The project results were fantastic for a 5-day hackathon."

"It was the best event I have ever attended. Love to be a part of this next year."

