Cyber Infrastructure panel

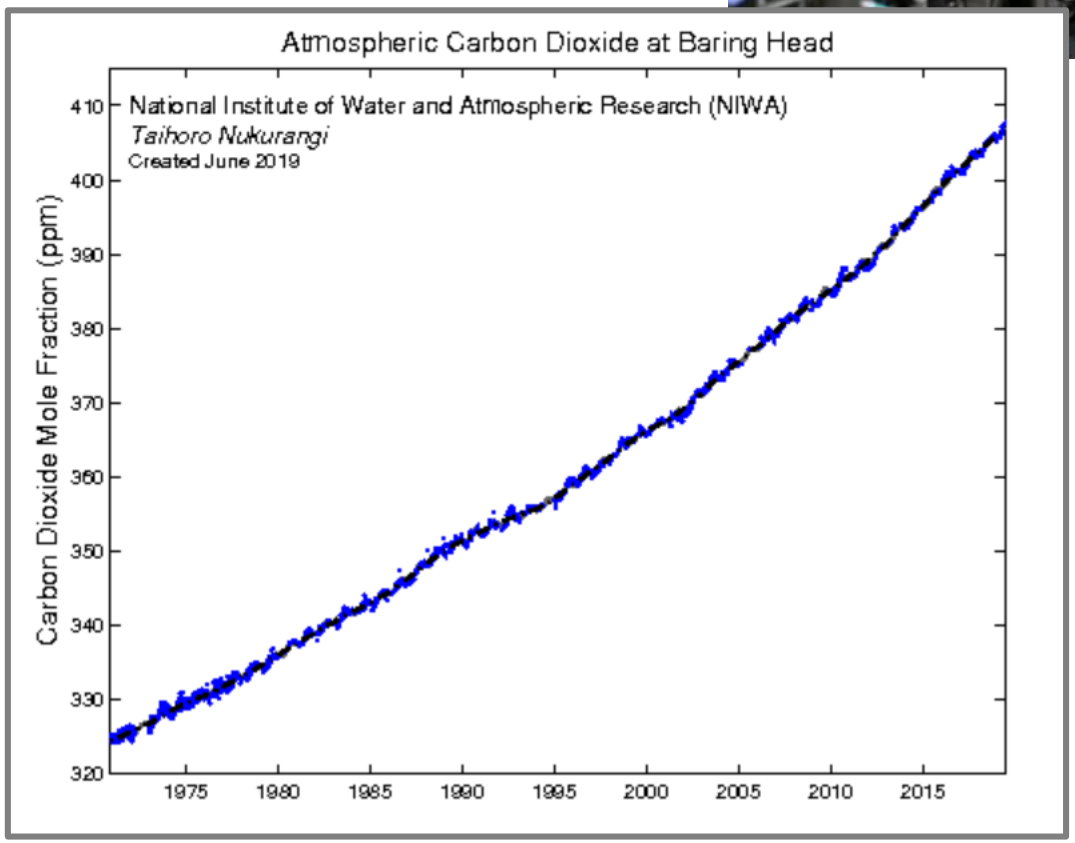
Virtual Residency Intermediate/Advanced Workshop 2020

NIWA
Taihoro Nukurangi

Climate, Freshwater & Ocean Science

Introduction

- University of Wisconsin, Stanford – engineering degrees
- Followed by work life:
  - A. Ford Aerospace (later Space Systems Loral) 1985-1991
  - B. Cray Research (and then SGI) 1991-1999
  - C. IBM 1999-2014
  - D. Lenovo 2014-2019
  - E. NIWA / NeSI in New Zealand, 2019 onward



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NeSI New Zealand eScience Infrastructure

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Baring Head climate monitoring station

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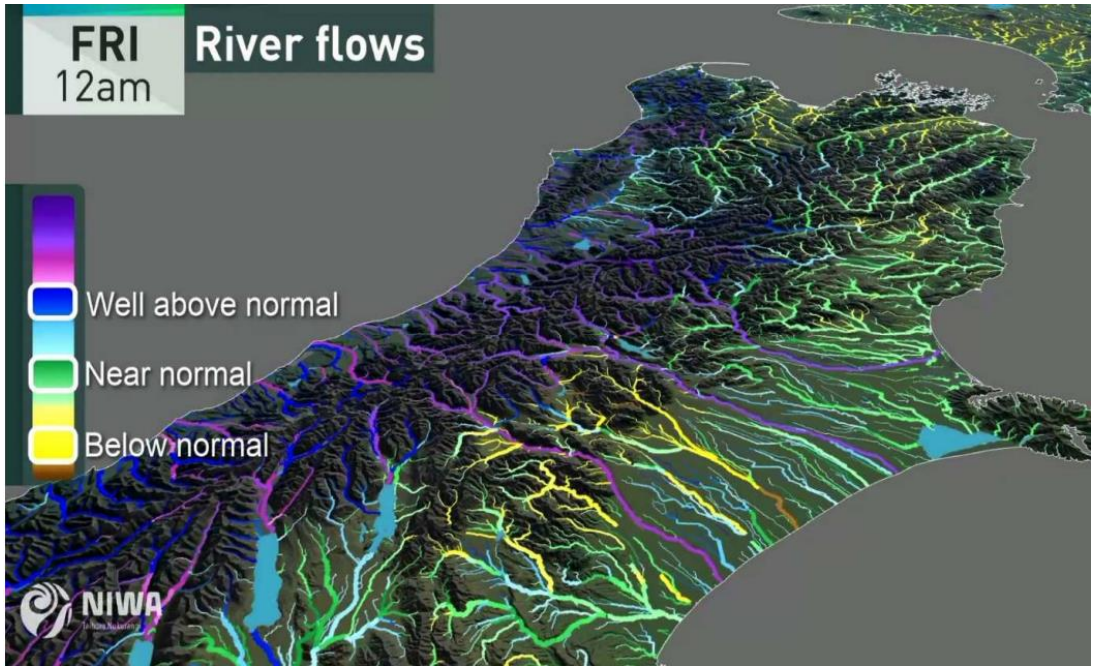
HPC example: New Zealand's first national river flow forecasting system for flooding resilience

•Researcher:

Dr. Céline Cattoën-Gilbert

NIWA

"Without NeSI's input, we would have been much more limited. We wouldn't have been able to develop a national-scale system running in real-time."



NeSI delivered:

- Computing resources
- HPC expertise to optimise data processing
- Assistance with automating workflows

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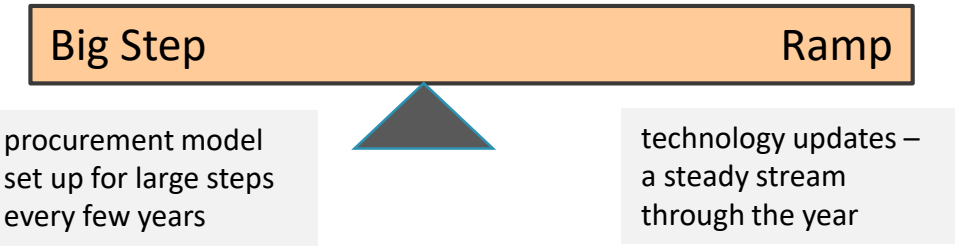
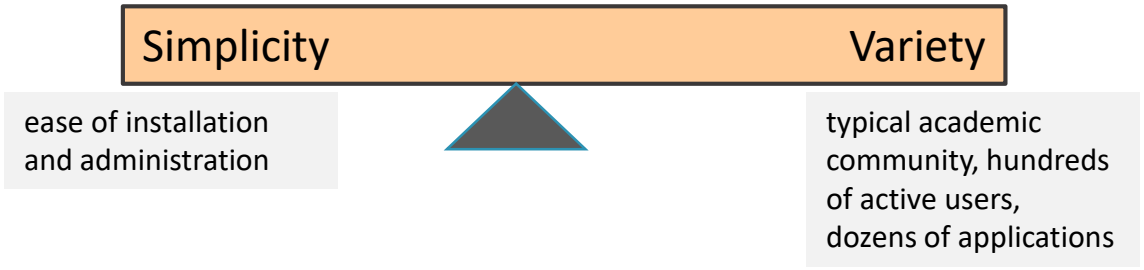
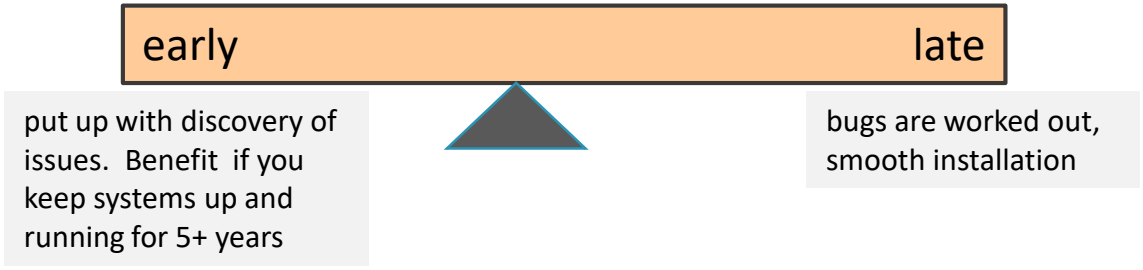
Panel: Deciding Which Technologies to Adopt, and When







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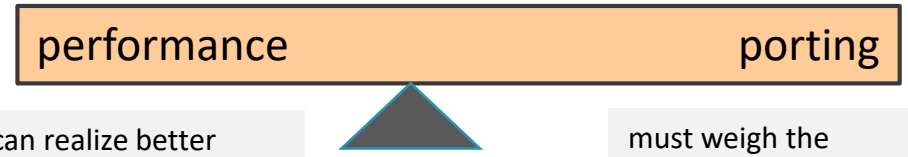
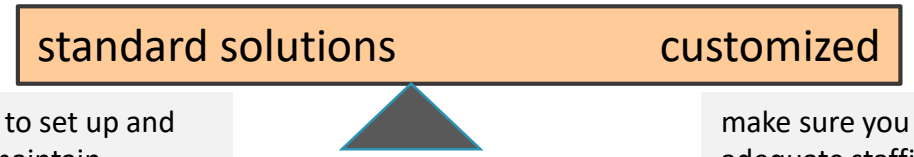
Panel: Deciding Which Technologies to Adopt, and When



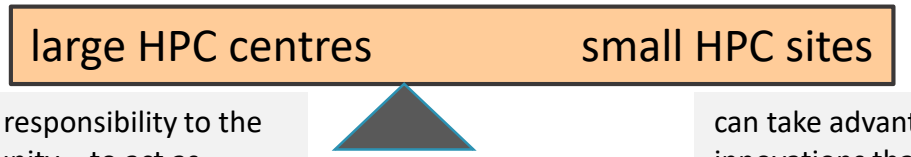
can realize better performance (or better pricing) by changing technologies with a new system

must weigh the benefits against moving codes and processes to new systems



easier to set up and then maintain

make sure you have adequate staffing and vendors when starting down this path



have a responsibility to the community – to act as pioneers. Example: SciNet and dragonfly plus

can take advantage of innovations that have been proven elsewhere

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Thank you

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