Shifting NZ’s eResearch Capability: reflecting on NeSI’s training efforts

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The Power Behind Researchers

Growing the computing capability of New Zealand researchers to ensure our future prosperity

Delivering value through eScience services

- High Performance Computing – computation and analytics
- Consultancy
- Training
- Data transfer
Growing the computing capability of NZ researchers
Values:

NeSI cooperates with researchers by providing superior computer power, support systems and training to underpin the integrity of their research.
Objective:

To grow advanced skills that can apply high-tech capabilities to challenging research questions.
NeSI’s Training Strategy:

We build digital research methods training capabilities within partnerships to sustain research digital literacy.

- Training in advanced skills in applications and methods
- Train the trainer to grow sector ability to scale training
- Training in basic skills to use tools, platforms and services

We grow researcher digital literacy capacity within the research sector over time.
Basic skills to use platforms, tools, services

<table>
<thead>
<tr>
<th>Building capacity</th>
<th>Planned</th>
<th>Delivered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic skills</td>
<td>24</td>
<td>33</td>
</tr>
<tr>
<td>Research Bazar/Bootcamps</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carpentries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community led events</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Grow sector ability to scale training

<table>
<thead>
<tr>
<th>Building capacity</th>
<th>Planned</th>
<th>Delivered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training instructors/ helpers</td>
<td>Software Carpentry instructor training</td>
<td>58 instructors</td>
</tr>
</tbody>
</table>
Advanced skills in applications and methods

<table>
<thead>
<tr>
<th>Building capacity</th>
<th>Planned</th>
<th>Delivered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced skills</td>
<td>6+</td>
<td>17</td>
</tr>
<tr>
<td>HPC-specific workshops</td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
Strategy:

We build digital research methods training capabilities within partnerships to sustain research digital literacy.

- training in advanced skills in applications and methods
- train the trainer to grow sector ability to scale training
- training in basic skills to use tools, platforms and services

We grow researcher digital literacy capacity within the research sector over time.
Training reach

Number of learners

- Scion
- PFR
- NIWA
- Manaaki Whenua
- GNS
- ESR
- AgResearch
- Other government
- Waikato U
- VUW
- Unitec
- Otago U
- Canterbury U
- Auckland U
- Massey U
- Lincoln U
- AUT
- Other HE

2013
2015
2016
2017
Training reach
Instructor Training

Attendees

- NeSI
- Scion
- PFR
- NIWA
- Manaaki Whenua
- GNS
- ESR
- AgResearch
- Other government
- Waikato U
- VUW
- Unitec
- Otago U
- Canterbury U
- Auckland U
- Massey U
- Lincoln U
- AUT
- Other HE

2013
2015
2016
2017

Attendees
Training reach
Insights

- You need good data to report impact
- Given our scale, you must still be pragmatic
  - Analysis paralysis
So what is next for Training at NeSI?

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New Zealand’s Research Workforce

<table>
<thead>
<tr>
<th>Role</th>
<th>HE</th>
<th>CRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Researchers</td>
<td>10,700</td>
<td>1,860</td>
</tr>
<tr>
<td>Technicians</td>
<td>2,000</td>
<td>558</td>
</tr>
<tr>
<td>Students</td>
<td>16,400</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>29,100</strong></td>
<td><strong>2,557</strong></td>
</tr>
<tr>
<td><strong>Percent</strong></td>
<td><strong>92</strong></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>
The real size of the challenge... a scenario

Goal: 50% of NZ researchers attending basic digital skills training

PhD students
  113 workshops
Researchers and technicians (Higher Ed)  159 workshops
Researchers and technicians (CRIs)      32 workshops
Govt + Business                        188 workshops
Where to from here?

He tangata,
He tangata,
He tangata
SAVE THE DATE

eResearch NZ 2019

18 - 20 February // Heritage Hotel
Auckland, New Zealand
https://www.nesi.org.nz/apply

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