Research Software Engineer Asia Australia Unconference Summary Report

10.6084/m9.figshare.21201989

Building the Research Software Engineer community across Asia and Australia

14th to 16th September 2022

Key Partners

QCIF

ARDC
Australian Research Data Commons

Accessibility Partner

RSE
SOCIETY OF RESEARCH
SOFTWARE ENGINEERING

Allied Partners

NCI
AUSTRALIA

Google Cloud

Acknowledgement of Country

We acknowledge the Boon Wurrung, Yuggera people and the Turrbal people, on whose unceded lands we live here in Naarm and Meanjin. We respectfully acknowledge their Elders, past and present.

We also acknowledge the Traditional Owners of Country throughout this continent. We pay our respects to their Elders past and present.

Co-chairs Rowland Mosbergen and Paula Martinez

Note of Appreciation

We would like to thank our organising committee members and other key supporters.

Saranjeet Kaur was instrumental in providing advice, bringing RSE Asia into the unconference, organising the accession partnership with the Society of RSE, organising the two Early Career RSE keynotes, and chairing sessions.

Michael Lynch organised the weekly meetings leading up to the unconference, provided advice, setup the programme, organised and chaired sessions.

Paula Martinez was the Co-chair of the unconference and provided advice, liaised with other organisations, updated the event website, learnt and taught the committee about the Zoom Events application, setup the original budget, organised the registrations and the communications with the participants, setup the programme, wrote and distributed surveys, organised and chaired sessions.

Rowland Mosbergen was the other Co-chair of the event. He spearheaded the formation of the event, did the graphic design and wrote content, refined the budget, setup the event website, wrote the partner prospectus, attracted four event partners, designed the high-level programme, set the vision, project managed, established the organising committee, commissioned the accessibility report, and organised and chaired sessions.

Pradeep Rajasekhar provided advice as well as responding to scholarship and accessibility requests.

Simon Stanton was instrumental in providing advice, reviewing and organising voting tools such as Padlet, checking for quality control, setting up the programme and organising sessions.

Special thanks to Mark Crowe, Grant Ward, and Tom Honeyman for their support in the setup and support of this event.

Introduction

The first online Research Software Engineer (RSE) Asia Australia Unconference was from the 14th to the 16th of September 2022. This was a joint partnership between the newly formed RSE Asia Association and the RSE Association of Australia and New Zealand.

This is report is a summary of the proceedings.

It was an interactive and enthusiastic set of participants that actively contributed across the three days. During the three days we had:

- 141 participants were registered for the unconference,
- 17 different community-led sessions, and
- a maximum of 77 participants in one session for the first Early Career Keynote presentation on the first day.

These facts and figures are all the more amazing given that all the infrastructure was built from scratch when it was kicked off in February 2022.

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Vision

Vision

This vision for the unconference was influenced by the RSE-AUNZ strategic review that was led by Rowland Mosbergen. In this strategic review, the RSE-AUNZ Steering Committee (SC) came up with a strategic selection criteria that is applied to all new opportunities.

The initial set of five selection criteria are:
- Does this make RSEs value themselves?
- Does this make Senior Managers value RSEs?
- Does this grow community or raise awareness?
- Does this or can this support Diversity, Equity & Inclusion (DEI)?
- Does this sit in the policy advocacy space?

The RSE Asia Australia Unconference was crafted to ensure that these selection criteria were met. This vision for the event was then kept in mind whenever we made decisions.

This vision was then used in the closing session to ask the community if we had held up to that vision.

The list of items in the vision were:
- Build the Research Software Engineer community across Asia and Australia
- Create awareness in the community of what is happening
- Discuss the need for more recognition and clear career paths
- Demonstrate the value of RSEs throughout the unconference
- Underpin the unconference with Diversity, Equity, and Inclusion principles
- Follow on from the discussions brought up at the NZRSE 2022 conference
- Use this as a springboard for building community in 2023

Partners

Partnership program

We initiated a partnership program that consisted of 2 tiers, Key Partners and Allied Partners. All the offerings for the partners were provided, including an expo each for the Key Partners. The fact we attracted such high profile partners demonstrated the value of RSEs.

The idea of an Accessibility Partner was successful and will be a feature of the 2023 unconference.

Offerings	Key	Allied
Logo, link and info on website	●	●
Logo on welcome slide	●	●
Mention during welcome and closing speeches	●	●
Final report/event wrap-up	●	●
Number of tickets included	5	2
Access to a virtual booth	●	
5 minute introduction to participants	●	
Logo on event emails	●	

Key Partners

QCIF

ARDC
Australian Research Data Commons

Accessibility Partner

RSE
SOCIETY OF RESEARCH SOFTWARE ENGINEERING

Allied Partners

NCI AUSTRALIA

Google Cloud

Structure

Programme

The original programme was changed to accomodate keynotes from different timezones. The times shown here are UTC+10.

The idea was to focus on the technical aspect on day 1 sessions, the career development on day 2 and the strategy and policy on day 3. In practice, these aspects were mixed together throughout the sessions.

Interactivity was a focus across all sessions, as well as ensuring at least 3 takeaways were written down from every break out session by the groups.

In the end we had 17 community-led sessions across the three days, including the Actionable Items sessions.

	Day 1 – 14th September	Day 2 – 15th September	Day 3 – 16th September
1:00PM – 1:30PM	Welcome, Vision, Explanation, and Partners	Explain, Review	Explain, Review
1:30PM – 2:00PM	Early Career RSE keynote	Mid Career RSE keynote	Strategy & Policy Panel
2:00PM – 2:30PM	Introductions to connect	Second Session	Strategy & Policy Panel
2:30PM – 3:00PM	Introductions to connect	Second Session	Strategy & Policy Panel
3:00PM – 3:30PM	Break	Break	Break
3:30PM – 4:00PM	First Session	Third Session	Actionable items
4:00PM – 4:30PM	First Session	Third Session	Actionable items
4:30PM – 5:00PM	Early Career RSE keynote	Review and discussion	Close and thank you

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Early Career Keynotes

The two Early Career Keynotes received excellent feedback as by coincidence they both described their non-linear career paths.

Mars was the initial keynote who showed that even without academic credentials people can still contribute to the community as RSEs with their specific skillsets. Of particular interest to the community was the idea of a newcomer hour to introduce new people to the project.

Anne was the keynote that finished day 1 who also showed people from non-STEM backgrounds can also contribute to the RSE community and talked about how communities are built. She also showed the Turing Way has many resources that could help the community.

The presentations are available on YouTube.

Mars Lee
Technical Illustrator
Quansight & NumPy

Anne Steele
Community Manager
Alan Turing Insititute

Mid Career Keynote

The day 2 Mid Career Keynote was also well received. A/Prof Jess Mar recently recognised that she is an RSE and that demonstrates that many RSEs may not know that they are considered RSEs.

She also showed how she contributed back to the community from a teaching and mentoring point of view, which is sometimes lost in the RSE contributions discussion.

She also highlighted the importance of providing internships and opportunities to be exposed to RSE experiences and skillsets.

She also touched on the idea that careers in RSE are not straight forward.

This presentation is available on YouTube.

A/Prof Jess Mar
Group Leader
University of Queensland

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Strategy & Policy Panel

On day 3 we had the Strategy & Policy Panel, chaired by Dr Georgina Rae from NeSI.

This was a robust discussion on the challenges RSEs faced with some questions such as "What do we have to do more of to recognise the role of RSEs?".

One of the challenges was raising awareness as one of the panelists, A/Prof Asif Khan recently recognised that he is an RSE and that shows RSEs may not know that they are RSEs.

Professor Andy Hogg highlighted that RSEs are not the only community that has an issue with highlighting their contributions and value to research.

This presentation is available on YouTube.

Dr Manodeep Sinha
RSE-AUNZ Co-Chair

Sarenjeet Kaur
RSE Asia Founder

Prof Andy Hogg
ACCESS-NRI Director

A/Prof Asif Khan
APBioNet President

Introductions to Connect session

In the Introductions to Connect session we attempted to introduce the community to each other. To start off, we asked a series of questions through Slido that included:

- Can you speak more than one language?
- Why did you attend this Unconference?
- What do you hope to learn/find/get out of this Unconference?
- How can we make you feel safe to really tell us what you think at this Unconference?
- Why do you think the roles and abilities of RSEs are valuable?

After these questions we attempted to automatically split the group of 76 participants into 10 breakout rooms. Unfortunately some people were not able to be assigned and stayed in the main room. We had to then do round table introductions in the main session while the participants in the breakout rooms did the same in smaller groups.

Anonymous
Anonymity for the win. The abyss is deep!

Anonymous
let's not call any question / answer "simple", "trivial", "obvious", "of course", etc 🙂

Anonymous
anonymity

Anonymous
The first rule of RSEAA is...

Anonymous
Allow some space to discuss problems with being an RSE

Anonymous
I'm safe.

Anonymous
anonymity

Anonymous
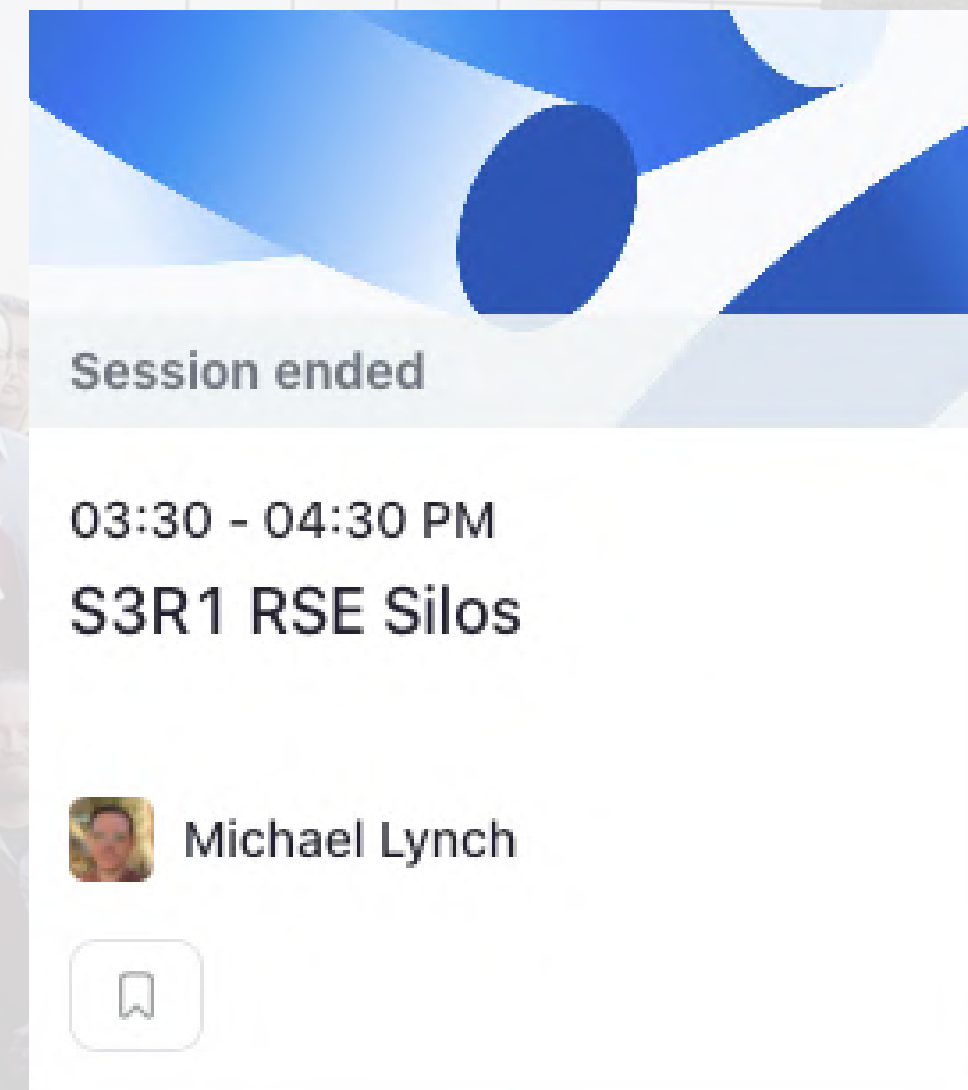the welcoming environment already makes me feel safe!

Break out rooms

The original programme consisted of creating breakout rooms in each of the 4 sessions. However, this became an issue as some people could not be assigned into break out rooms and the break out rooms themselves didn't have closed captions.

The decision was made to create new sessions on the fly and assigning a unique identifier so that documentation that was stored in Padlet could be easily identified.

Each session was encouraged to write into Padlet three key points that came out of the session. This was then discussed with the community in the next review session to give the participants who missed out an overview of the session.

This worked well and may need to be repeated in the next unconference.

Session ended

03:30 - 04:30 PM

S3R1 RSE Silos

Michael Lynch

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Session One

For the first session we had 6 topics that had more than 10 votes, but we had to reschedule one room to day 2 due to scheduling conflicts with the idea owner.

In room 1 (Computational Reproducibility), we had 29 participants and the key points they talked about included sharing the Turing Way four-way grid for reproducibility, and that reproducible environments can be difficult to achieve.

In room 2 (Quantify RSE outputs), we had 18 participants and the key points they talked about included interest in holding a meeting similar to NumPy Newcomers Hour, quantification of RSE output using workflow repositories, and is the amount of time an RSE makes software better a fairer measurement?

There weren't many people in room 3 (Benchmarking domain-specific research workflows), so this room was closed and the talk was given in the lightning talks room.

In room 4 (Lightning Talks) we had 12 participants that had lightning talks about DataJourney, Statistical Recipes in Python, a project comparing plant genomes, and to check out EvidentlyAI.

In room 5 (#BridgingTheGap between #Biologists and #Programmers) we had 24 participants that highlighted that collaborations and communication are key and COVID19 has been a blessing in disguise for biologists to come closer to programming.

In room 6 (Hosting Research Software) we had 17 participants and the main issues highlighted the persistence of data and software, access to read and write large amounts of data, the cost and governance of data and software, maintenance and clearly defined responsibilities.

Session Two

For the second session we had 4 topics that were the most popular votes, but with an extra room from session 1 due to scheduling conflicts with the idea owner.

In room 1 (What exactly does the most senior RSE look like?), we had 22 participants and the key points were that there is teaching, managing, strategy, and technical aspects to seniority, University of Melbourne has an academic specialist that is a good fit for some, and that there are Professors of RSE here in Australia and elsewhere in the world.

In room 2 (Questions to ask your supervisor at your RSE performance review), we had 14 participants and the key points included recognising that performance reviews are an extremely valuable activity, especially if it also involves planning your goals for the next review. It is there so you can get feedback from your supervisor or manager about how to best support your growth and to find strategic opportunities to collaborate and demonstrate your value.

In room 3 (What would a secure RSE position look like?) there were 21 participants that talked about centralisation of services in bigger organisations, there is a lot of experimentation across institutions, the difference between academic and professional could change the security, and being brought in on "soft" project money has pros and cons. There was also the idea of getting together in their own institutions, like a local chapter to increase visibility and value.

In room 4 (Let's discuss employment realities, as a student, as a grad, as a postgrad, as an ECR) we had 10 participants that highlighted performance reviews can be a way to plan for training, upskilling, professional development, opportunities to collaborate with different groups of researchers, conferences, that academic/researcher performance checklists can be adapted for RSE activities - ie code review can be seen as mentoring - which provides a framework for recognition, and that frequent check-ins with line managers are really important.

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Session Three

For the third session we had 4 topics that were the most popular votes.

In room 1 (RSE Silos), we had 13 participants and the key points included platforms like Slack or Discord could be a great way to build community in a less formal way, RSEs often find themselves working with researchers from different disciplines - it is a challenge to respect the disciplines' own communities of practice while also building bridges between them, and that boundaries between RSE, data scientists, data engineers and software engineers can be blurred, which can cause problems for recognition.

In room 2 (Software as first class output), we had 14 participants and the key points included the importance to career of recognising the work that goes into software - as it's often invisible, that software can outlive the group that originated it, that the Journal of Open Source Software (JOSS) allows pairing of software with a paper, and the importance

of using DOIs. Monash Business School has gone some way down this road of proposed research software standards.

In room 3 (Justifying maintenance work) there were 21 participants that talked about fundamentals like why we need the process, what are we supporting the continuation of, why it is essential to maintain, the idea of a software management plan in funding submissions, and that there are many types of maintenance needed that includes system administration too.

Possible justifications included maintaining security, maintaining the reputation of the institution, and as preparation to merge into another group or for commercialisation.

In room 4 (A Web Platform for RSEs) we had 17 participants that highlighted the need for user profiles, forums, job ads, event registry, news and links, and project profiles among others. One of the questions was also - how do we get this project started?

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Outcomes and Recommendations

Actionable Items

On the final day, we had a session for Actionable Items. This was a chance for the community to voice their opinions on what they would like to see.

To start off, the initial presentation suggested two key actions: holding this event again in 2023 and starting a community discussion to make the RSE-AUNZ association a legal entity.

In room 1 (Community Building), we had 15 participants that discussed the ideas such as piggy-backing off existing events such as training to introduce community elements, hold broad-based events which are likely to achieve critical mass within the institution e.g. get your (RSE) development questions answered, use focussed events e.g. in Bioinformatics (or even particular Bioinformatics systems) that will bring in the relevant RSEs.

In room 2 (Peer programming and collaboration) we had 9 participants that talked about an idea of peer programming across the RSE community and the idea of a multi-institution

hacky hour where researchers could ask questions to a national audience of RSEs to get help.

In room 3 (Unconference 2023 ideas) we did not have enough participants and so the room was closed.

While it was not brought up in this meeting, in session two the idea of local chapters catching up with each other could be added to the ideas provided in room 1.

Participant Feedback

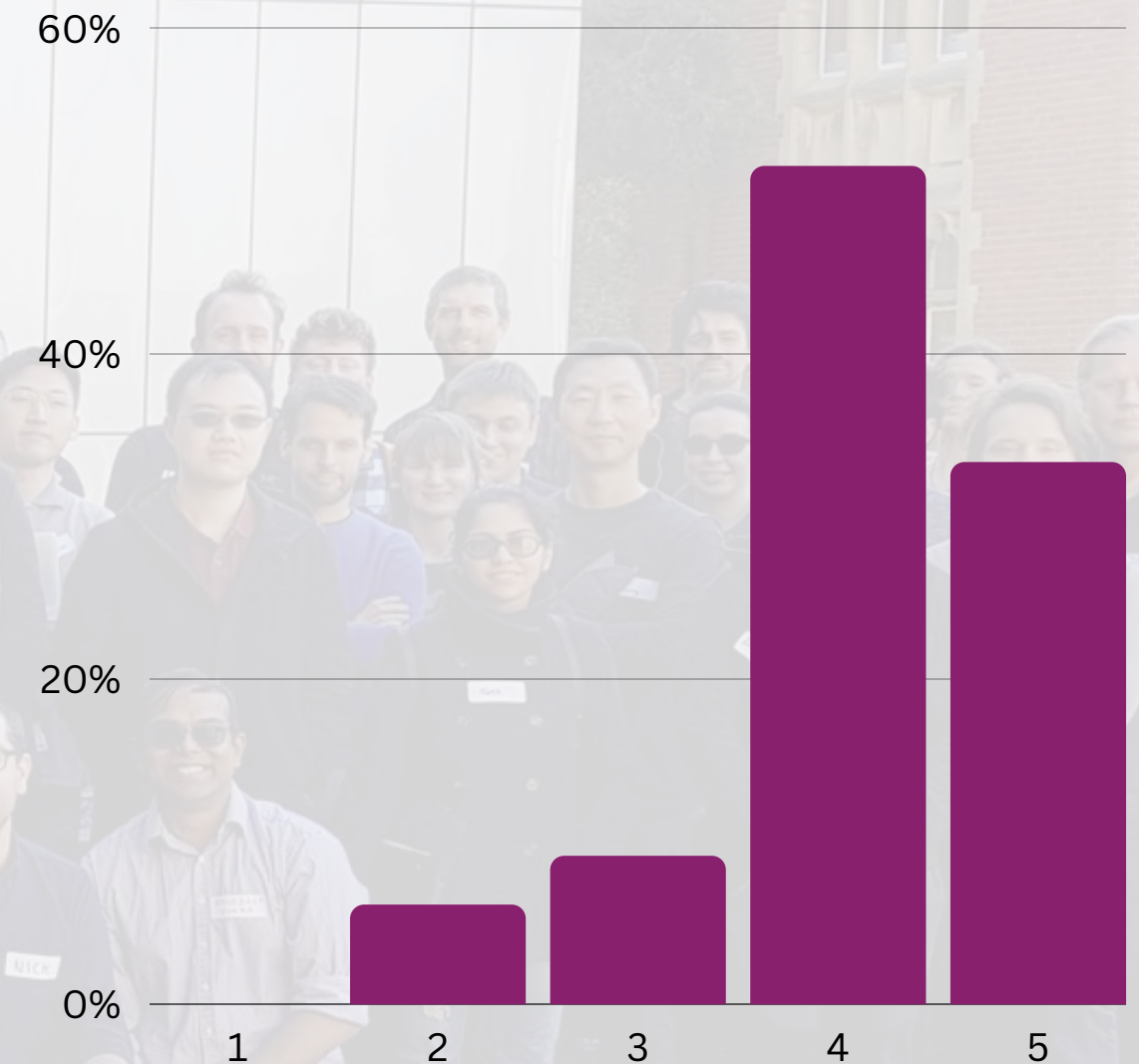We provided participants with a feedback form to rate the unconference.

33 people filled out the survey, and rated the following:
- How would you rate the keynotes and panellists
- How would you rate the unconference sessions
- How would you rate the organising team
- Would your recommend the RSEs associations
- How would you rate the platform Zoom events
- How did you hear about the unconference
- How would you rate the flexibility of the event

All the graphs for these responses are provided in Appendix C.

People also had the opportunity to provide individual comments such as:

"I feel like I belong more to this community than to other professional societies, and expect some others would feel the same way."

Response to the question: So overall, how would you rate the unconference?

Benchmarking against the Vision

The vision was used in the closing session to ask the community if we had held up to that vision. On the following pages we review the results.

The list of items in the vision were:
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Build the RSE community across Asia and Australia

One of the key reasons that RSE Asia was approached by the RSE-AUNZ association was to ensure that we could build the RSE community together.

Australia is in the same timezone as Asia and this was a good opportunity to look at international collaborations that fit within appropriate work hours.

As RSE Asia is still a new association, we did expect the majority of the participants to come from Australia. This was found to be the case with the exercise "Where are you joining us from?" getting 42 responses with 27 coming from Australia, 8 from Asia, 4 from Aotearoa New Zealand, and 3 from the UK & USA.

We also had multiple opportunities to meet informally through networking sessions.

There was a big effort to reach out to Asian representatives thoughout the partnership, keynote, and panelist searches.

This allowed us to reach out to people like the President of the International Network of Women Engineers and Scientists to potentially allow us to build the community further.

We hope that this becomes a seminal point for growing the RSE Asia community further, and for solidifying the RSE community in Australia and Aotearoa New Zealand.
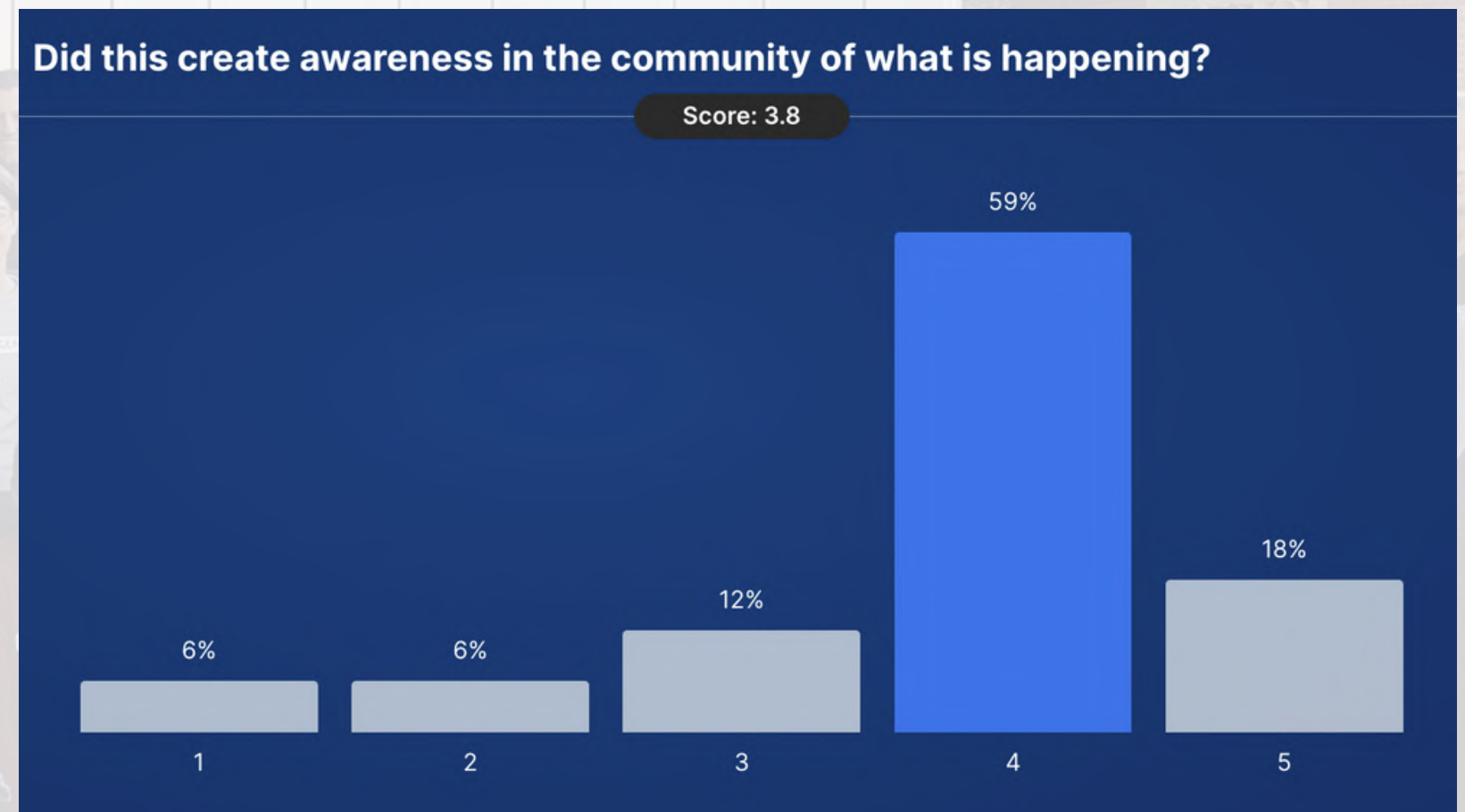
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Create Awareness of RSEs

It was easy to see the importance of awareness raising with the fact that two Associate Professors recognised that they were RSEs after they were invited to speak at the Unconference.

It was also interesting to note that we used this event to reach out to senior people such as directors of institutes and presidents of societies.

We were able to raise awareness to these people by asking for keynotes, raising awareness of partnership opportunities, and for offering the opportunity to be a part of the Strategy & Policy panel. This event is key for continuing to raise awareness for the RSE community both in Asia and Australia.

In the closing session, we had an average score of 3.8 out of 5 stars for creating awareness in the community, with 59% giving us 4 out of 5 stars.

Did this create awareness in the community of what is happening?
Score: 3.8

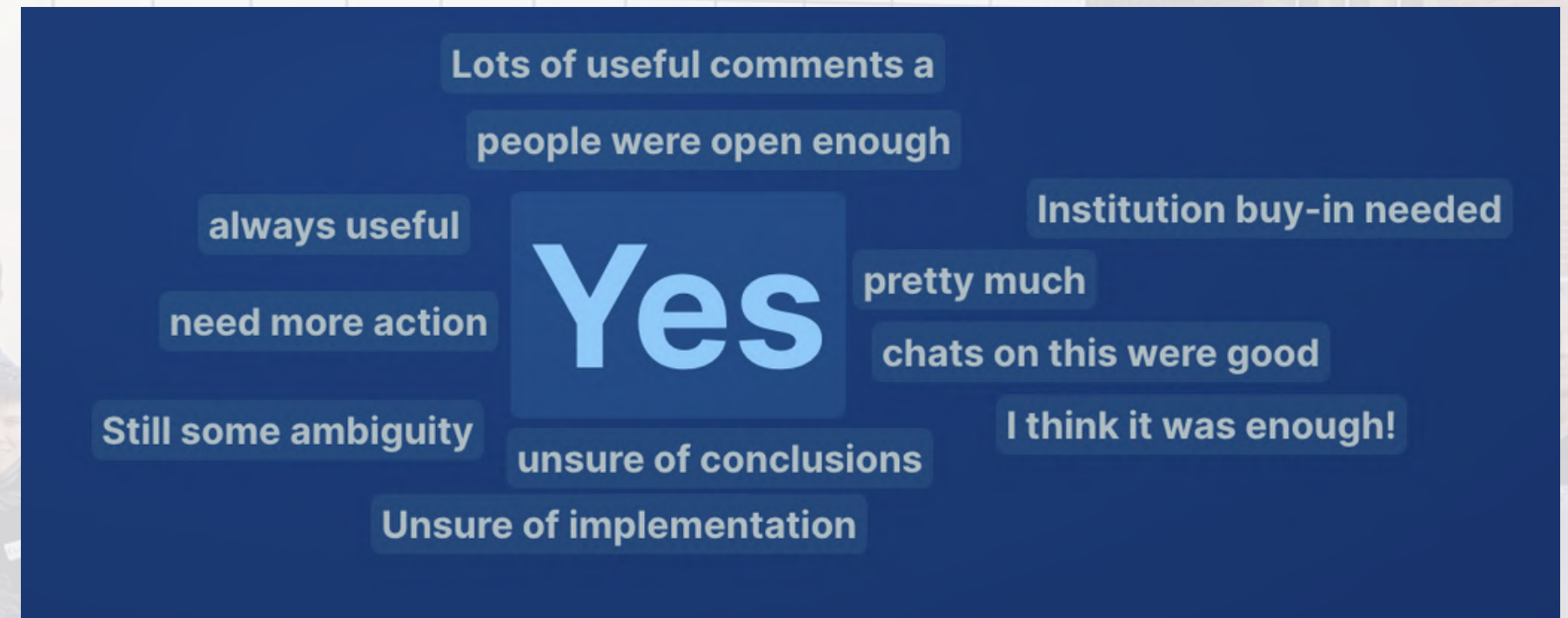| 1	2	3	4	5
6%	6%	12%	59%	18%

Discuss more recognition and clear career paths

There was a lot of discussion on day 2 about career progression and more recognition. The sessions included:

- What would a secure RSE postion look like?
- Questions to ask your supervisor at your RSE performance review.
- What does a senior RSE look like?

Particularly in the session "What does a senior RSE look like?", it was clear that there were some people able to gain recognition and promotion, and that these people were happy to share their stories. This could then be used to argue the case for promotions in other institutions.

The Strategy and Policy panel also discussed two important questions: "What do you think has improved in recognition of the work of RSEs in the last few years?" and "What is the importance of having RSE contributions

evaluated for career progression?" which contributed toproviding examples and takeaways.

In the closing session, when the question "Was there enough discussion on the need for more recognition and clear career paths?" the most popular answer was "Yes".

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Demonstrate the value of RSEs

In the closing session, when the question "Did this event demonstrate the value of RSEs throughout the three days?" the most popular answer was "Yes", with the second most popular being "So happy about keynotes".

The organising committee also demonstrated the value of RSEs by attracting high profile partners to this event and by highlighting that they will provide honorariums to all speakers and members of the organising committee.

It was also important to ensure that the RSE Asia and RSE-AUNZ associations were considered valuable. This is why we ensured that the founder of RSE Asia and the co-founder of RSE-AUNZ were part of the Strategy & Policy Panel that was hosted on the third day.

So happy about keynotes

networking   Yes   i didn't need convincing

felt included   Preaching to choir mostly

perhaps little shorter   Critical Mass

agree preaching to choir

Underpin the unconference with DEI principles

Accessibility Report

Liz Hare, Ph.D.

LizHare@DogGenetics.com

2022-09-05

- 1 Overall Communication Strategy
- 2 Software Components and their Accessibility
  - 2.1 EventBrite
    - 2.1.1 Suggestions
  - 2.2 Website
    - 2.2.1 Suggestions
  - 2.3 Zoom
    - 2.3.1 Suggestions
- 3 Accessibility Standards for Presenters
  - 3.1 The Slides
  - 3.2 Giving the Talk
- 4 After the Unconference

The diversity of the speakers was well received with their new perspectives, and the fact that this event was online, the tickets were relatively cheap with scholarships available, and using Zoom made it more accessible than a normal event.

We also received two accessibility requests from the community and an accessibility report was commissioned with the aim of using this as a benchmark in which to aim for in 2023. We also have agreed to make a 1% donation to the Dhadjowa Foundation to "pay the rent".

There was some initial challenges in the first keynote as closed captions were not enabled by default, but we had it in all other sessions.

One key suggestion for 2023 would be to identify an individual to focus on this before and during the event, and to review the event's accessibility.

A second key suggestion would be to review the accessibility report when the organising committee first meets to ensure that everyone is aware of what the benchmark is and to incorporate that into any decisions made.

Follow on from the NZRSE 2022 conference

Due to the community-led nature of the unconference, we were not able to directly continue the dicussions of the NZRSE 2022 conference. But we were able to collaborate with them.

In the lead up to both the RSEAA22 and NZRSE events, the communications teams of both events agreed to add content to each others marketing emails and calls to action.

To raise the visibility of Aotearoa New Zealand at the event, it was decided to ensure that the chair of the Strategy & Policy panel was from Aotearoa New Zealand. We were grateful that Dr Georgina Rae from New Zealand eScience Infrastructure (NeSI) agreed to do this as she did an excellent job.

It was also discussed during these engagements with our Aotearoa New Zealand colleageus about making a more streamlined and integrated series of events for 2023 that would incorporate the NZRSE and RSEAA22 event types.

Dr Georgina Rae
Session Chair

Use this as a springboard for 2023

In the closing session, when the question "What are you going to do or think differently after this event?" the most popular answer was "Reach out to peers", with the second most popular being "Go to NumPy newcomer hour" thanks to the keynote from Mars Lee.

In the Actionable Items session, there was strong support for doing this event next year.

There were also individuals who were interested in making the RSE-AUNZ association a legal entity and to provide a resource to help overcome objections for RSE promotions.

This also might be the springboard for other activities that might be able to be co-ordinated due to the funding now available thanks to this event.

Appendices

Appendix A - Tools

There were three tools that were used extensively for this conference, Eventbrite, Zoom Events, and Padlet.

Eventbrite was used for paid registrations, Zoom Events for the event itself, and Padlet for voting, creating a participant world map, and revising session summaries.

Emails from eventbrite were loaded into Zoom Events once registrations closed.

Padlet was set to be accessible without authentication, but new topics for voting and the summaries of sessions had to be approved by the admin.

Slido was also used to great effect. The anonymity and the ability to provide feedback in parallel meant many interesting viewpoints could be expressed in a short timeframe.

Appendix B - Finances

We received a total of $5,000 AUD from partners including $3,000 AUD from the ARDC as a Key Partner and $1,000 AUD each from NCI and Google Cloud for being an Allied Partner. QCIF was a Key Partner in return for financial services provided, including invoicing and providing an account for holding funds.

We will request that the Society of RSEs reimbuse the $677 AUD accessibility report and the two accessibility grants (2x $50 AUD) as part of the agreement to be the Accessibility Partner.

There should also be further income from the ticket sales via Eventbrite. GST will be removed from the account and should be considered as already being in use.

Honorariums of $100 AUD will be offered to the 13 members of the organising commitee, keynotes, panel members and chairs, and this total of $1,300 AUD should be budgeted for.
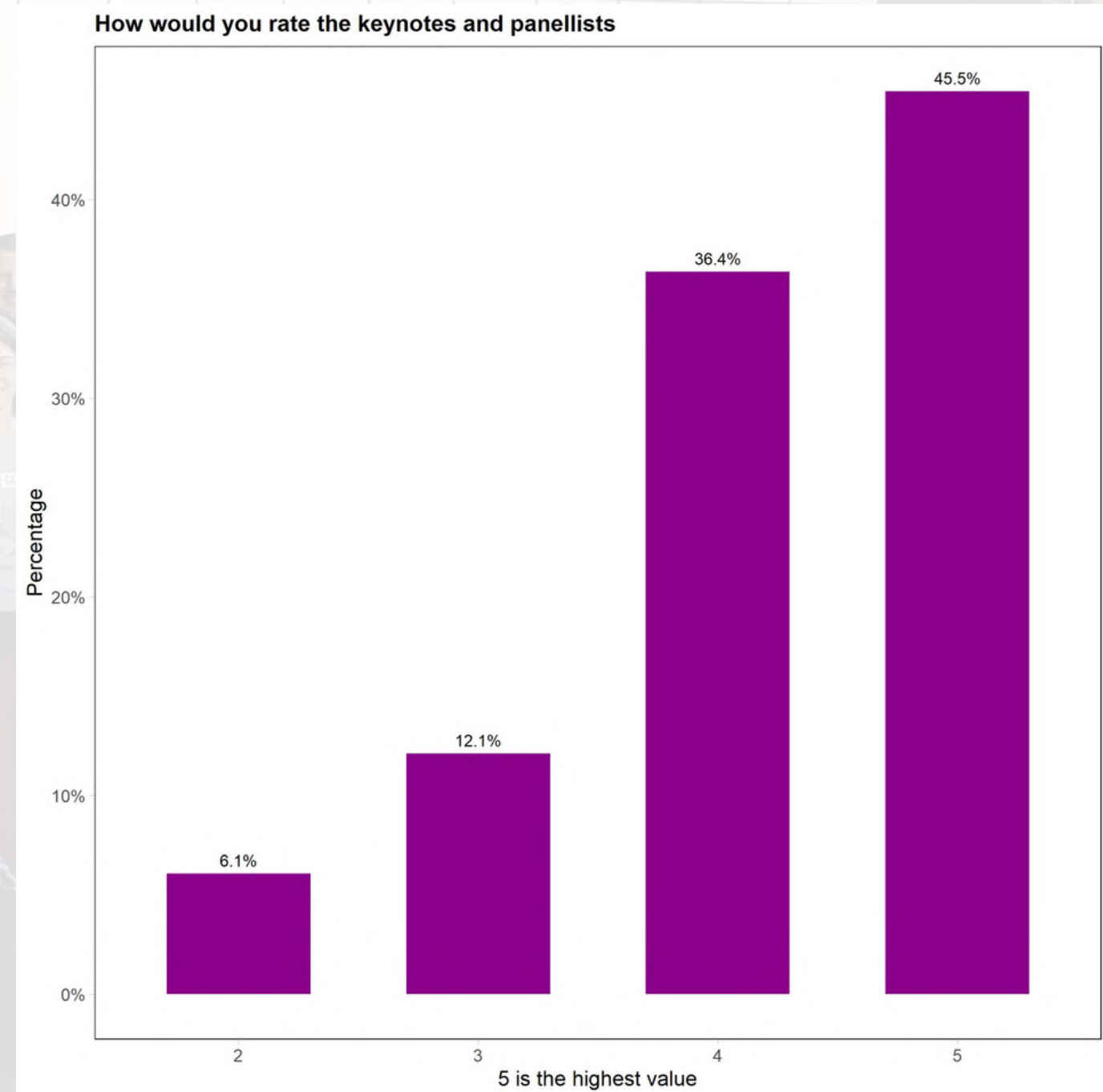
The minimum balance from this event will be $2,923 AUD and a maximum of $3,700 AUD, not including ticket sales.

Income					
Invoice	*Date*			*GST*	*TOTAL*
686	30.6.22	ARDC	$3,000.00	$300.00	$3,300.00
738	29.7.22	The Australian National University	$1,000.00	$100.00	$1,100.00
739	4.8.22	Google Cloud	$1,000.00	$100.00	$1,100.00
			$5,000.00	$500.00	$5,500.00

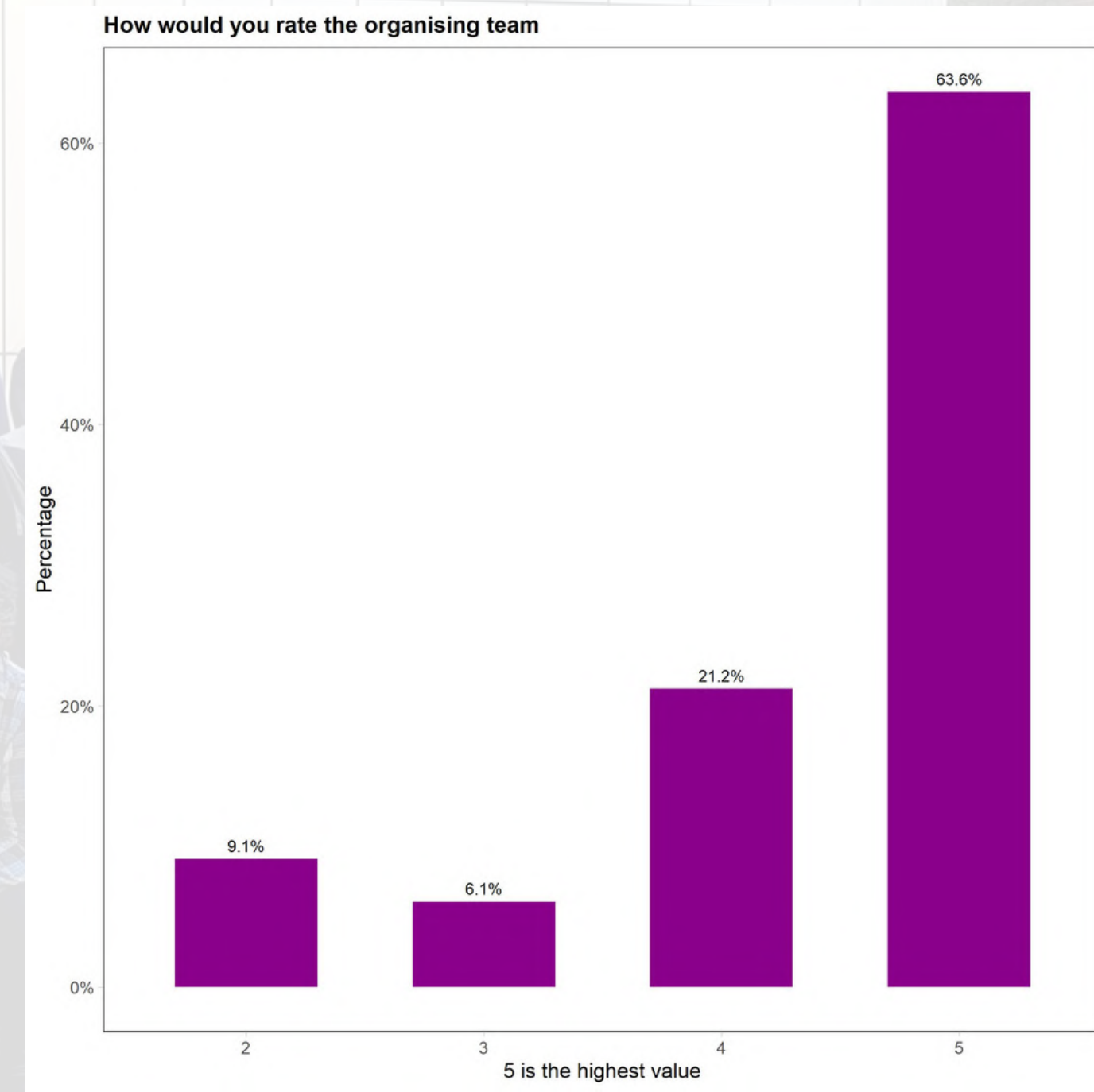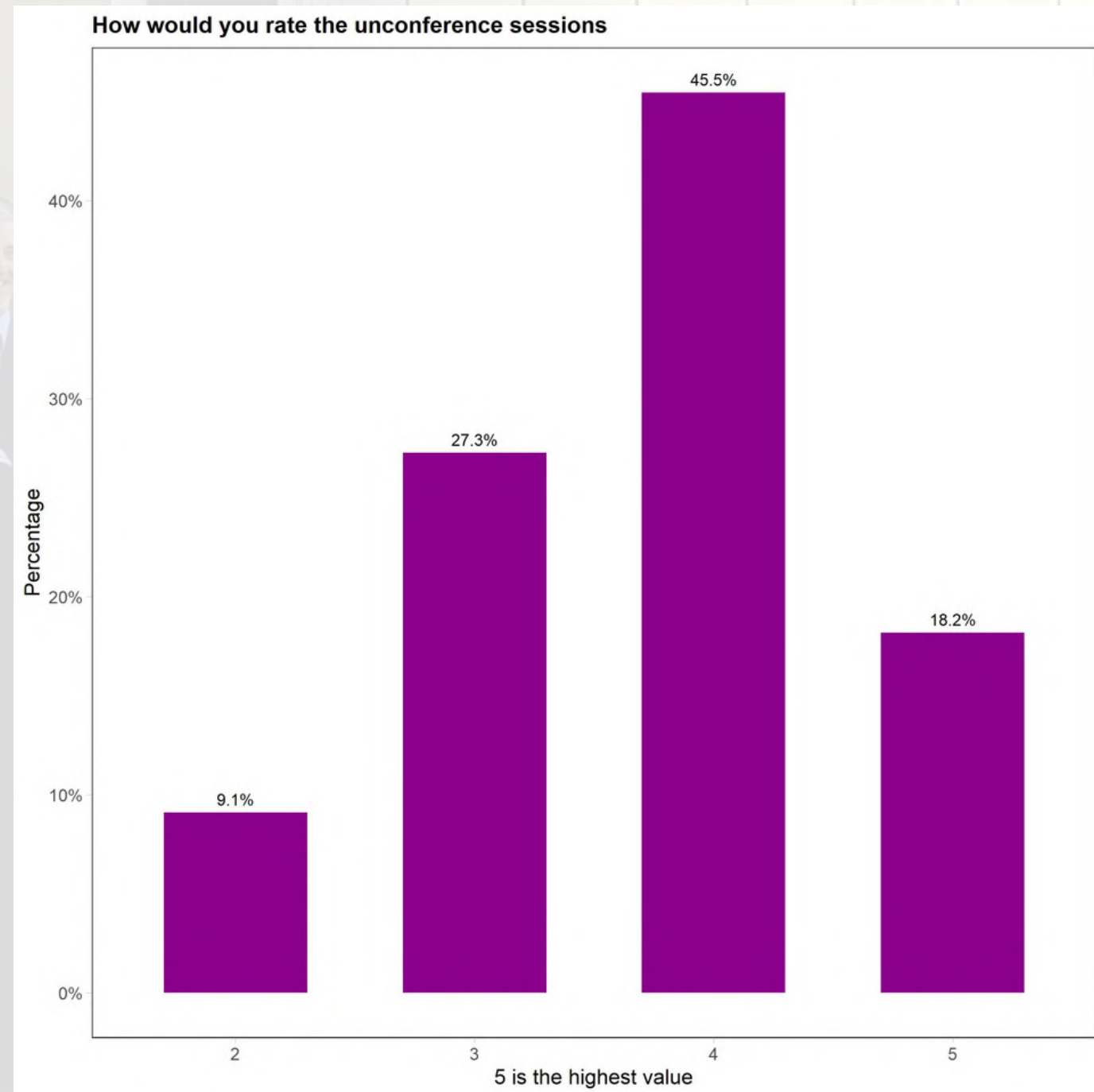| Expenses					
Invoice	*Date*			*GST*	*TOTAL*
DG RSA 00798	10.8.2022	Accessibility Report	$677.00		$677.00
JB RSA 00798	2.9.2022	Accessibility Grant 1	$50.00		$50.00
JB RSA 00798	2.9.2022	Accessibility Grant 2	$50.00		$50.00
				$0.00	$0.00
				$0.00	$0.00
				$0.00	$0.00
			$777.00	$0.00	$777.00
		Balance	$4,223.00	$500.00	$4,723.00

Appendix C - Feedback

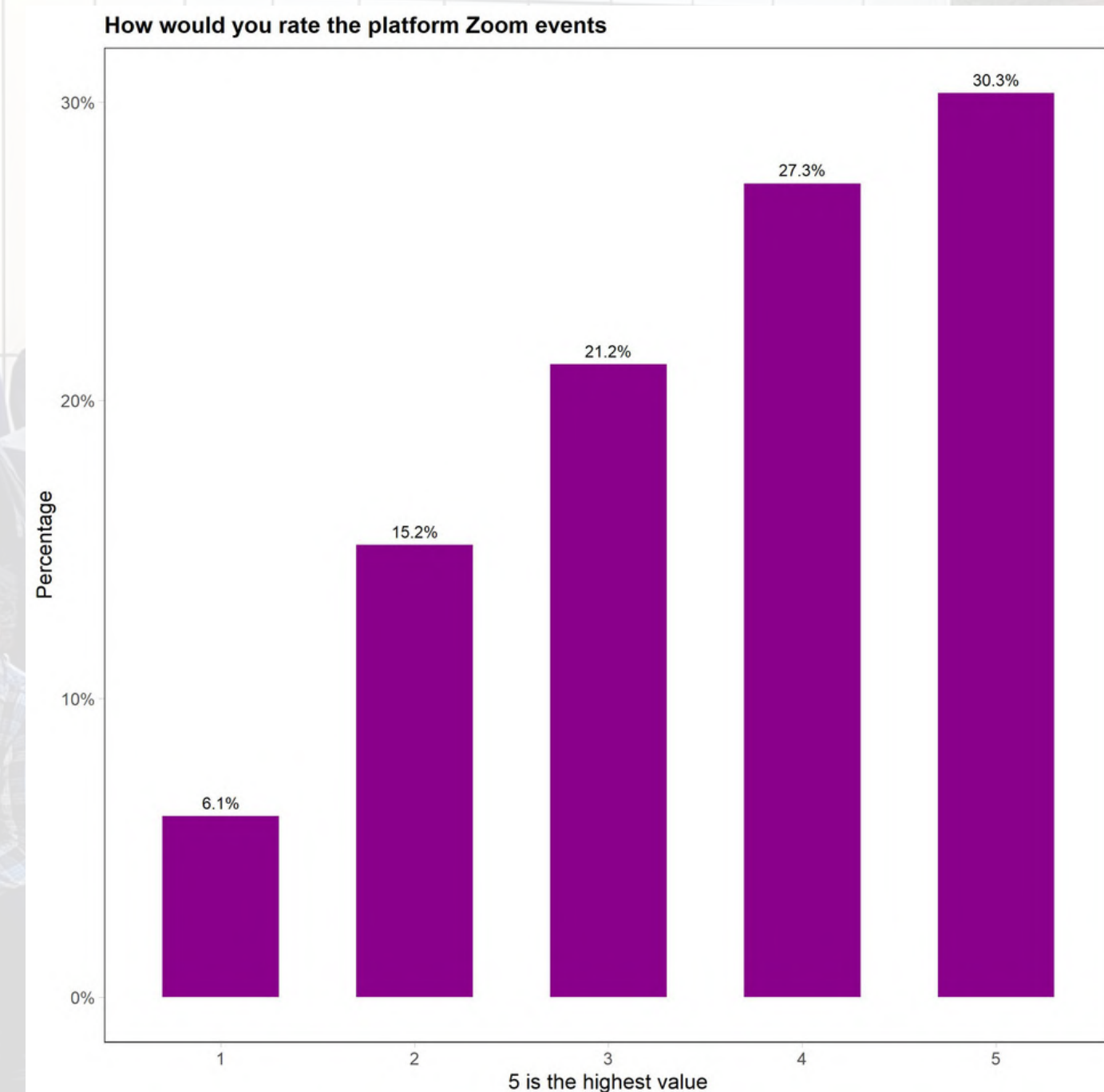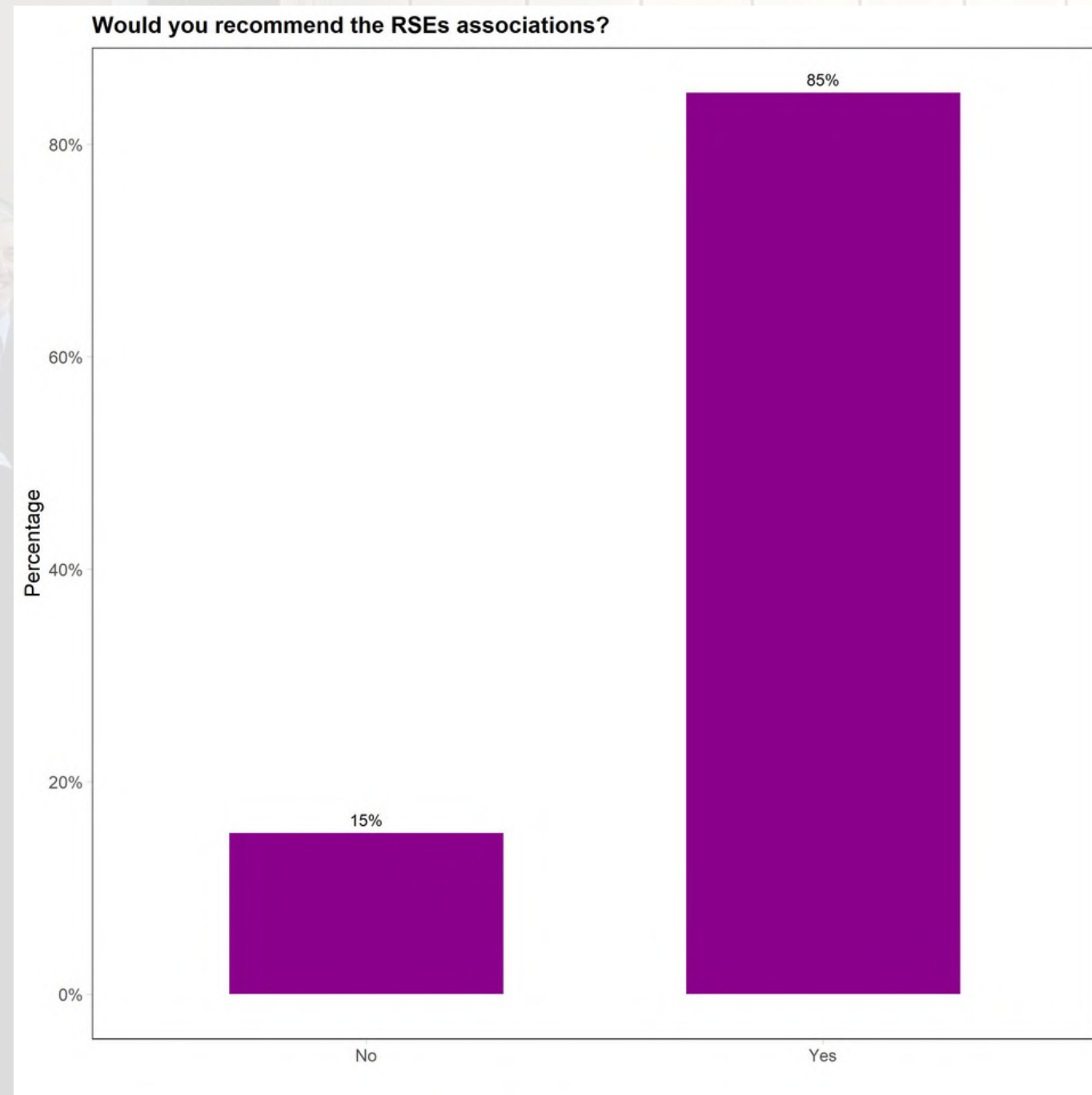This is a series of pages showing the feedback from the 33 people filled out the survey for the following questions:
- How would you rate the keynotes and panellists
- How would you rate the unconference sessions
- How would you rate the organising team
- Would your recommend the RSEs associations
- How would you rate the platform Zoom events
- How did you hear about the unconference
- How would you rate the flexibility of the event

Appendix C - Feedback continued

Appendix C - Feedback continued

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How did you hear about the unconference?

How would you rate the flexibility of the event