



**11TH INTERNATIONAL CONFERENCE ON INDUSTRIAL ECOLOGY:  
TRANSITIONS IN A WORLD IN TURMOIL**  
**JULY 2-5 2023, LEIDEN,  
THE NETHERLANDS**



# ISIE 2023 Leiden survey results

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The International Society for Industrial Ecology <https://is4ie.org/>

Version January 19, 2024

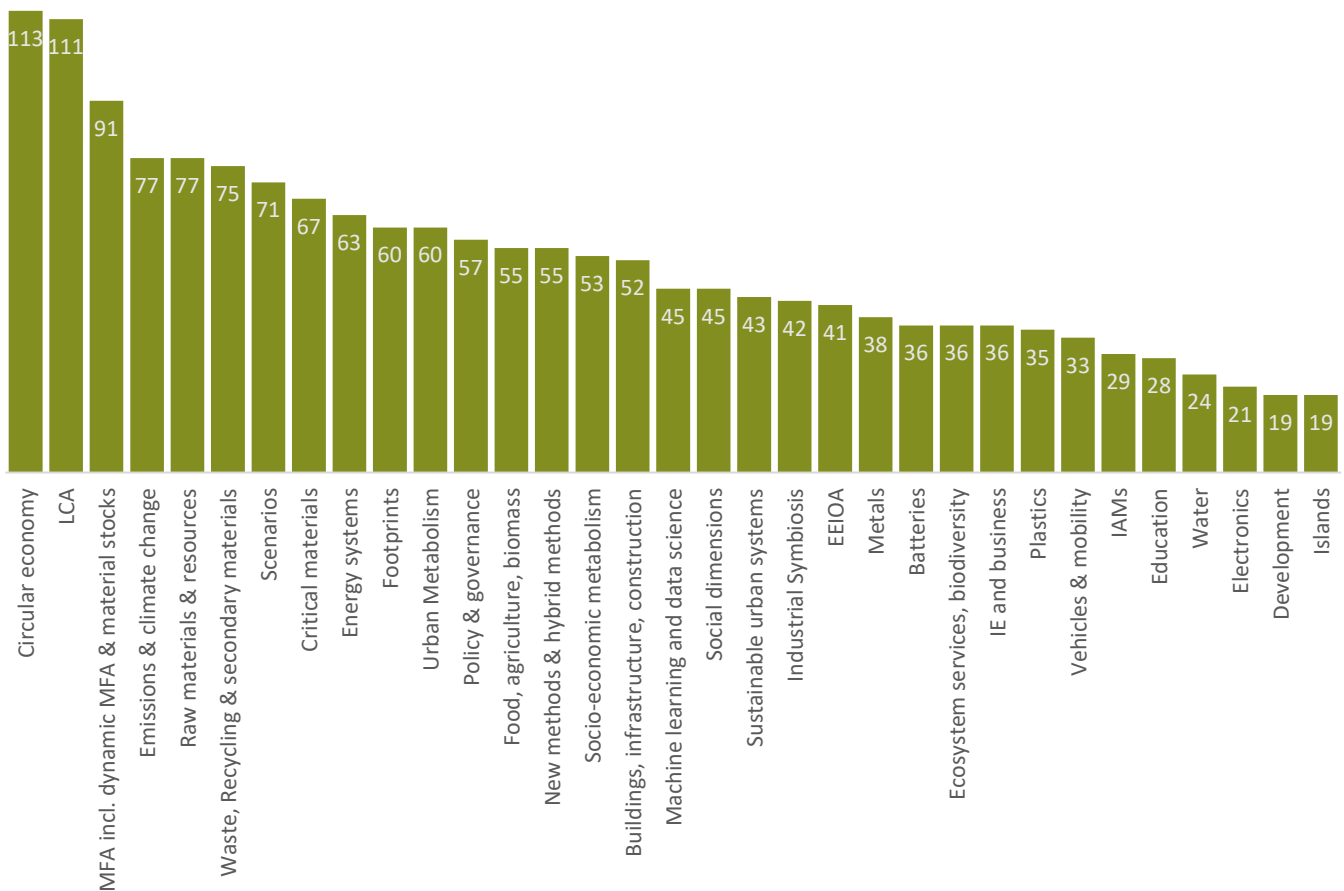
## Table of Contents

<b>1. THE CONFERENCE PROGRAM</b>	<b>2</b>
1.1. WHICH TOPICS DO YOU FIND INTERESTING?	2
1.2. RANKED REASONS FOR ATTENDING THE ISIE CONFERENCE	3
1.3. CONFERENCE PROGRAM CONTENTS RATING (1-5 STARS)	3
1.4. HOW BUSY WAS THE PROGRAM?	4
<b>2. ORGANIZATION AND PLANNING</b>	<b>4</b>
2.1. ORGANIZATION AND PLANNING ITEMS RATING (1-5 STARS)	4
2.2. DO YOU AGREE WITH THE FOLLOWING STATEMENTS?	5
2.3. WRITTEN FEEDBACK OR COMMENTS ABOUT THE ISIE2023 LEIDEN CONFERENCE	5
<b>3. THE 2025 SINGAPORE CONFERENCE AND FUTURE ISIE CONFERENCES</b>	<b>9</b>
3.1. HOW LIKELY ARE YOU TO ATTEND THE NEXT ISIE CONFERENCE IN SINGAPORE IN 2025?	9
3.2. SUGGESTIONS OR REMARKS FOR THE NEXT ISIE CONFERENCE IN SINGAPORE 2025	9
3.3. WHAT IS YOUR OPINION OF THE FOLLOWING IDEAS FOR FUTURE ISIE CONFERENCES?	11
<b>4. SUSTAINABILITY AND ENVIRONMENTAL IMPACTS</b>	<b>11</b>
4.1. WHERE DID YOU TRAVEL FROM?	11
4.2. WHAT WERE YOUR MAIN MODES OF TRAVEL TO AND FROM LEIDEN, THE NETHERLANDS?	12
4.3. WERE THERE ANY PRACTICAL ALTERNATIVES TO THIS MODE OF TRAVEL?	12
4.4. DID YOU OFFSET YOUR JOURNEYS' CARBON EMISSIONS?	13
4.5. WHAT WERE YOUR MAIN MODES OF TRAVEL WITHIN LEIDEN DURING THE CONFERENCE?	13
4.6. SEVERAL SUSTAINABILITY EFFORTS WERE ATTEMPTED AT ISIE2023. WHAT'S YOUR ASSESSMENT OF THEM?	14
4.7. DO YOU AGREE WITH THE FOLLOWING STATEMENTS?	14
4.8. COMMENTS OR SUGGESTIONS REGARDING SUSTAINABILITY OF ISIE CONFERENCES	15
<b>5. RESPONDENTS' GENERAL STATISTICS</b>	<b>17</b>

## 1. The conference program

### 1.1. Which topics do you find interesting?

N=182, selection of multiple topics possible.



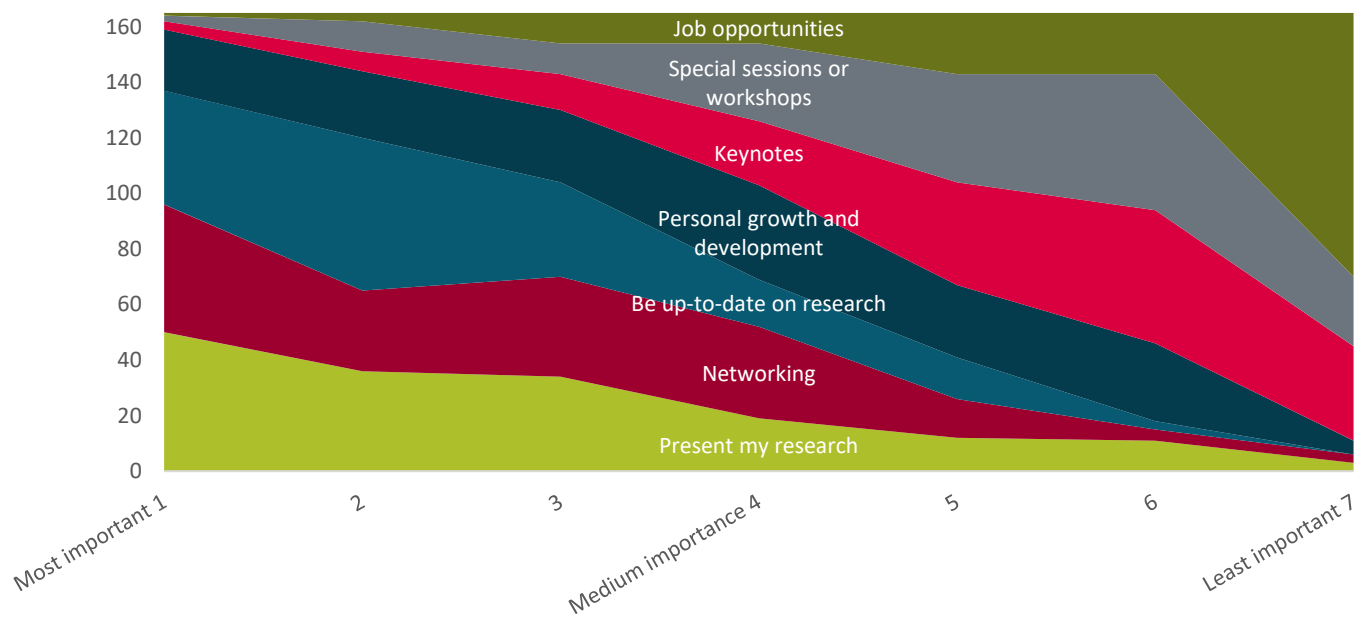
Topics added by respondents (no. of responses):

Transitions (1), textiles (1), Global South (1), IE in practice (1), Ocean waste (1), urban design (1), AI for IE (1), Complex socio-technical systems approaches (1), IE and CE Theory (1), Consumption (1), industrial symbiosis (1)

### 1.2. Ranked reasons for attending the ISIE conference

N=165.

Each respondent was asked to rank 7 reasons from most important (1) to least important (7). The vertical axis is the number of respondents that ranked a topic with the rank in the horizontal axis. **Present my research**, **Networking**, and **Be up-to-date on research** are ranked highly, **Personal growth and development**'s ranking is nearly uniformly spread, and **Keynotes**, **Special sessions or workshops**, and especially **Job opportunities** are ranked as reasons with lower importance.



### 1.3. Conference program contents rating (1-5 stars)

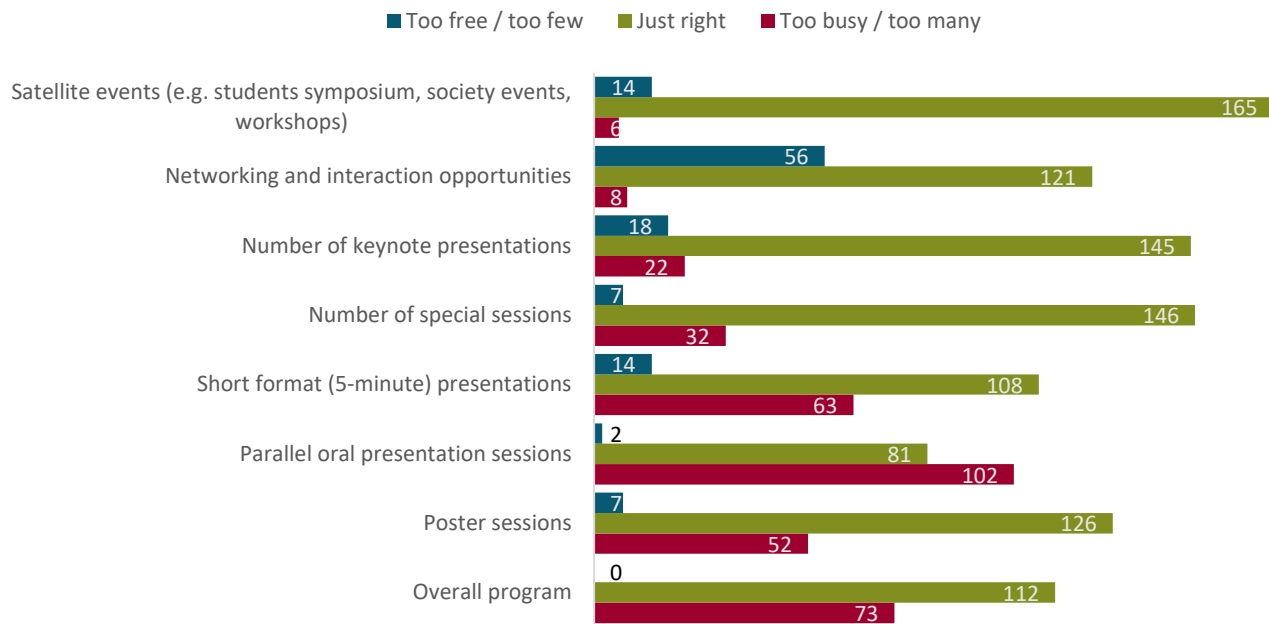
N=191

	average	min	median	max
Overall program format and schedule	4.3	1	4	5
Overall conference contents	4.4	2	4	5
Overall scientific & academic level	4.4	1	5	5
Interaction and networking opportunities	4.2	1	4	5
Keynotes	4.1	1	4	5
Special sessions	4.2	2	4	5
Poster sessions	4.3	2	4	5
Oral presentation sessions	4.1	2	4	5
Limit of one oral presentation per participant	4.4	2	5	5
Balance of topics	4.2	1	4	5



### 1.4. How busy was the program?

N=185



## 2. Organization and planning

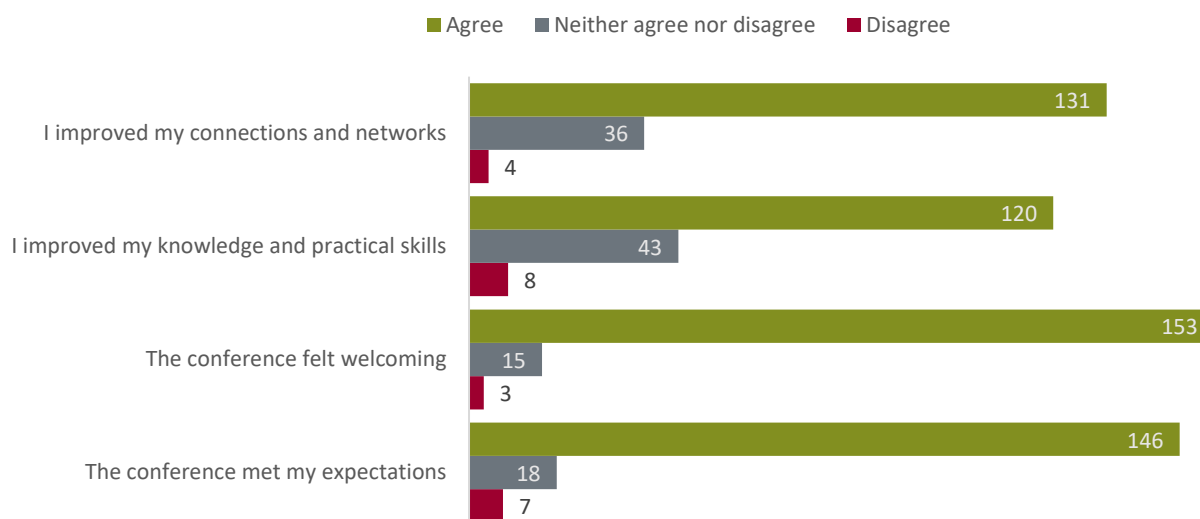
### 2.1. Organization and planning items rating (1-5 stars)

N=172

	average	min	median	max
Abstract submission & acceptance process	4.4	1	5	5
Online registration & payment process	4.3	1	5	5
Accessibility	4.4	1	5	5
Diversity and inclusion	4.3	1	5	5
Communication before the conference	4.2	1	4	5
Communication during the conference	4.5	1	5	5
Conference website	4.2	1	4	5
Conference mobile app	4.1	1	4	5
Conference venues	4.4	1	5	5
Conference dinner	3.6	0	4	5
Excursions	3.6	0	4	5
Lunches and coffee breaks	3.5	1	4	5
Conference dates	4.1	1	4	5
Conference location (Leiden, Netherlands)	4.7	2	5	5
Overall organization	4.5	1	5	5

## 2.2. Do you agree with the following statements?

N=172



## 2.3. Written feedback or comments about the ISIE2023 Leiden conference

79 Statements:

- It will be nice to distribute the events throughout the conference. For example in Leiden 2nd and 4th is not that busy day.
- 5-min presentations were good: we get the main conclusions quickly when we are not interested in the topic and can start a discussion during the break when we are interested. The poster session was excellent. For the food, please more healthy food during coffee breaks and the conference dinner was too expensive for what it was (especially that we could not stay long for discussing). Very nice to have only vegetarian food! Starting the conference a Saturday does not allow for visiting the area.
- A wonderful event. I appreciate this community so much. I left feeling energized. It was well-organized, great topics and energy. Thank to all involved.
- I couldn't get a credit card to be accepted during registration, called credit companies for different cards, ended up paying with PayPal.
- Although I recognize the efforts in planning ISIE and the ERSCP-SCORAI-WUR conferences back-to-back, it was way too intense to plan them within the same week (resulting in 7 full work-days in a row). It would have been good to have a day or two as a break in between the two. A more substantial lunch would have been good to keep focus high for all the interesting sessions.
- Arrangement of buses on the last day was excellent!!!
- As there are so many parallel sessions, I think it would be great to have at least some tracks dedicated to the sections. If each ISIE section would have one track it would be 5-6 parallel and people might be able to better follow their interests. There have been many similar topics in parallel, which make it mor difficult to follow. Having ISIE section tracks would also strengthen the section's visibility (and their involvement in the organization
- coffee break and meals: few places and lunch for so many people and little time. Conference dinner: few variety, very much based on Asian cuisine. Uncomfortable, no places to sit down. Place for oral sessions: small rooms, I was always standing up. Poster sessions: excellent but very few. Keynote speakers: some of them were not enough relevant.
- Conference dinner didn't have enough place for all participants,. In light of inclusiveness, please consider a lower price for the dinner, or a reduction scheme
- Felt very dominated by European and Asian researchers. Saw very little otherwise.
- Food is a little bit too much?
- Food was a little rough- Barely any lunch served and the conference dinner options/quality did not match the registration price. Would have been better to just give everyone a lunch break to get actual sandwiches or something in town.

- -Venue was lovely, but large registration meant that networking sessions filled up really fast
- -Communication prior to conference was quite delayed- felt like we only received communication 1 week prior regarding presentation format/necessary tech
- For a European conference the weekend start was a bit unusual and conference days during the week would have been more appropriate.
- FYI, did not attend conference dinner.. had to answer question
- Great conference overall! I missed the communication when registering about the excursions (I didn't know there was a LinkedIn page for ISIE with info until too late), but this was not a big deal. The program was pretty packed with presentations, but I prefer this to not having as much choice.
- great job! very enjoyable & useful.
- Hotels were too far from the conference site.
- I absolutely loved that all the food was vegetarian by default, it sends a good message. I also enjoyed having multiple different small venues within walking distance - only problem was then that many presentations in my interest were on the same day and I was not able to see it all, while other days I was not interested in much.
- I don't mind attending events at simpler and cheaper venues in order to have more affordable conferences. I don't go along with elitism of academia over other sectors
- I missed to get a printed copy of the program. the registration fees were to high considering that the gala dinner was not included.
- I really appreciate the organizers' work. Some points would be better if improved: Information before the conference was hard to take. Schedule and place were changed with some confusion.
- I really liked being downtown and the urban feel of it. Further, we are all struggling with the large crowd. There is really no good mechanism to reduce except narrowing scope, which in itself may not be desirable.
- I think it would benefit from having a few sessions to introduce methods so that people who are unfamiliar from some subjects can learn and get a good overview.
- I think the conf was outstanding - best ever. The software was excellent preparing for the conf. The gala dinner was amazing and made people feel welcome and valued and even privileged to be there. The Chairs injected a lot of precious thinking and also did things with style such as the poster sessions. I hope the leadership will make sure the quality and good feeling can be written about broadly. Too often we fail to let people know how GREAT the conf & ISIE really are. More visibility is needed
- ISIE has wrestled with the number of days and frequency for the biennial conference for quite some time; the Leiden conference was no exception. An extra day would have been useful.
- It is not possible to create new lasting connections with senior researchers or establishing the mentorship. They are all already in clans and dedicated to support people who are already in their networks. It should be prioritized to give more platform for Junior Faculty and not only for top Universities students post docs and faculty - they already have established systems of support. While this is a widespread problem in other conferences as well there are things you can consider improving.
- It was a great conference! If any downside, it would be that there were so many people I haven't even met all of them. I loved the venues, and I particularly loved the poster sessions, very well done!
- It was a well-organized conference. I really liked the number of topics included. The length of the poster sessions was good as it allowed me to walk around and speak to various presenters without rushing. I appreciate that Exordo contained all the salient information of the conference.
- It was challenging during the poster sessions to get food if presenting, especially if you had dietary requirements as you had to find a specific person.
- It was great, thanks a lot!
- It was not easy with dietary requirements- no snacks available in break times, lunches where staff weren't always aware of what allergens the food contained. The poster session lunches were the most difficult and stressful. It was also difficult to always eat standing up and it meant that it is not easy for junior researchers to network with more senior researchers (they automatically form bubbles and there is no excuse, eg of a free chair, to join them)
- It would be nice if the name tags would include the pronoun that a person identifies with.
- Lunch during the poster sessions was pretty minimal and chaotic.
- Never three venues. Never rely on phone app as overseas visitors were at a disadvantage.
- Not enough food at the dinner and the lunches could have been better
- On the website, I couldn't mark favorite sessions, and I couldn't access PDFs.
- The special sessions were less interesting; especially the workshops were featuring underdeveloped ideas.



- Organizing a conference with the number of attendees as this one is a considerable challenge, congrats on that! But it was pretty hard to follow and attend presentations, as similar topics were happening simultaneously. Additionally, the front desk was mostly helpful but the head of the team was sometimes less attentive to young and/or non-European participants. I and other participants experienced that.
- Overall a bit too stressful; keynote speeches taking valuable time; more parallel sessions are, in my opinion and for networking, better than cramping sessions too shortly behind one another.
  - Conference dinner good per se, but having it end 22:30 is a bit disappointing (as always)
  - Full meals instead of sandwiches etc. or teeny-tiny salad bits for lunch would have been great.
- Overall a nice and interesting event, however, more "informal" activities would be nice to organize in future event to help the networking (e.g. drinks after conferences).
- Overall clear organization (the app, having one building for the oral sessions). The timing over the weekend was not very convenient - please avoid in the future. Poster sessions were exceptional. Oral sessions: good timekeeping/moderation, but the rooms were usually too small, and having people enter and exit the rooms during individual presentations was distracting.
- Overall great conference but too busy programme, too many parallel sessions and too many, too short presentations
- Overall, the participation was very expensive.
- Please improve the coffee breaks and lunch offer, walking lunch did not allow to have a real pause during the day. A proper lunch (with bigger portions or buffet with enough cocktail folding tables will be much better. The food should also consider gluten and lactose free. The central dinner should actually offer dishes not street food, and proper tables where to sit and rest also after a long day of conference. It was nice to visit the museum but it was not necessary.
- please indicate on the website / registration when the registration will close
- please add more sessions where there is time in the end for panel discussions - those were most insightful, short sessions of 5 min presentations +1 question were not so great
- Please, digitalisation comes too fast in such conference. If you have problems with your mobile, you are lost. This was the problem at ISIE. A balance structure and system needs to be thought of.
- Presentations very short - little time to go in-depth or for questions - and too many parallel sessions
- Rating the dinner and excursions was required but I did not participate in those. I enjoyed the conference; however, it was difficult to engage with presentations because there were so many without much time for discussion, perhaps matching the topics more closely and having more of a panel/discussion format would be better. The rooms were also a bit small, so it was distracting when people came in late. The quality and format of the walking lunches could be improved.
- Registration was very expensive.
- Some (short) presentations were too weak.
- Start on Saturday was inconvenient, poster session during lunch did not work well for presenters because they did not have time to eat. Otherwise, a great conference!
- Strange decision to start on a Sunday
  - Communication on the day of the storm could have been better - it was not entirely clear that all trains had been cancelled. Ideally more busses could have been hired or notice of this could have come sooner.
- Thank you for a great conference! (rating 0 means I didn't attend)
- My only feedback is that I found it too expensive, both the conference fee and the dinner (which I because of this did not attend). The conference fee made me hesitant to attend as it was a big part of the overall conference budget in my project.
- Thank you for a great conference. To ensure validity of my answers, I did not attend the excursion but could not move on without reviewing it, so please disregard my answer to that question.
- Thank you Tomer and René and the whole team!
- Two comments:
- Scrap the 5-minutes short presentations for Singapore. It's too hectic.
- The first two keynotes were thematically too similar (a lot of EU policy on Circular Economy, etc.), I would have preferred to exchange one of them with a company/startup/inspiring researcher presentation.
- Overall: Brilliant conference, thank you a lot!
- Thanks for organizing a wonderful conference! Great work!!
- The "Student presentation" label for submissions was unclear. PhD candidates may pay a reduced registration fee. Shall they then also choose "Student presentation"? It was unclear how this label was considered in the final program.
- The best event I have attended in years, truly inspiring. The work underway and insights gained in this research community are evolving rapidly with long term consequences for understanding and solving environmental challenges.
- The best poster session I have ever been to, and the food was great!

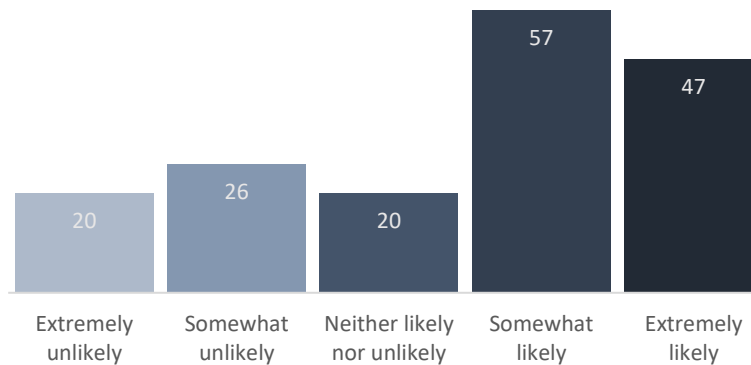
- the cancellation policy has been definitely unfair
- The conference organization was great but there were too many parallel sessions and too many topics. The venues were also beautiful but the overall cost was too high, especially when considering the food quality (really, it was not good). It is also quite conflicting to see a lot of plastic cups and other aspects which were not really in line with the overall "sustainability" efforts and spirit of the conference to reduce consumption, reduce our footprint, save the planet etc etc.
- the conference was fabulous! Very well organized and run. The food (especially at the oral venue) was gross at times and often no vegan options that were edible.
- The conference was great and very well organized. The only two suggestions I would have are (1) not to have parallel keynote talks, so we don't have to miss any (and if having them, it is important to have details on their contents); and (2) 5-min presentations only work with (and before) a poster - when we can give a short intro and say "if you want to know more, meet me at today's poster session in 1h". They are too short to stand alone (or after the poster). Thank you for everything!
- The conference was very well organized. The organizing team did an especially good job of responding to the storm that arrived the morning of the final day. My main comment is that it would have been helpful if there were more surfaces to use when eating the lunches.
- The detailed schedule came VERY late, made it difficult to plan travelling. The poster sessions were the best, mixing posters and lunch, great for interaction and overview both for presenters and visitors.
- The fee was very expensive which makes it difficult for scholars from the Global South and from precarious research positions to join. For the next conference, please consider lowering the fee by including less luxurious food stuff etc.
- The food was great! The dinner at the museum was amazing! A shame that biodiversity impacts remain a niche in IE
- The food was really scary for anyone with food allergies. Nothing was marked at the lunches, you just had to hope that the server was correct when you asked. The conference dinner, again nothing was marked, and depending on your allergy you were just hoping that they got it right. This is dangerous, and not inclusive nor welcoming. Food needs to be clearly marked, or just don't provide food, and people can bring their own safe stuff.
- The IS4IE and the IIE should have a permanent desk or booth prominently placed at the conference venue.
- The organizing team was very helpful and welcoming throughout.
- The overall conference was fantastic. Thank you very much again for organizing this great opportunity.
- Only thing I was not satisfied with was the lunch. I understand the need for consideration of dietary restrictions/preferences of participants, but the variety and the quantity of food was not satisfactory (especially for the first and the second day).
- The research presentations were overall very good. The venue was too small to make networking work. Having to pay separately for the conference dinner makes it hard for many of us to attend (given the cost and limits on meal reimbursements).
- The schedule was too packed. The limited time gave insights on the topics but not into methodological choices and results. Even well planned presentations didn't have time to show all the results in the short presentations. Very interesting posters, I went first to the ones related to my research but I didn't have time to go for something new. The schedule didn't allow for short talks in the corridor since we didn't have much time to move to the next session. Perhaps it is better to limit topics
- The time limit of 15 min per oral presentation is a little bit short to convey substantial information, especially when the audience are not very familiar with the new topic of technologies.
- The vegan food was excellent, but it came in a bit small volume: It would have been nicer to eat a bit more but less often.
- To explain some of the responses: I did not take part in an excursion. I feel more poster moments would have been nice, now there were too many for the short time and when you had a poster (I had one both days) there was no time to check other posters. There were too many parallel sessions for the contents I feel. It could have been more condensed.
- Too expensive with a lot of unnecessary arrangement and services. It's better to make self-served coffee instead of having people serving. It's better to offer simpler food on larger scale instead of fancy tiny bites that waste time to queue. I consider these unnecessary costs more of an environmental burden than a simpler version.
- Very expensive.
- Very well organized event, many thanks to all staff and volunteers!
- Well done, thank you very much for a great conference!
- Why no plenary keynote was given by women, only chaired by then? I am aware that there was always a woman giving one of the parallel keynotes, but it had not the same visibility.



### 3. The 2025 Singapore conference and future ISIE conferences

#### 3.1. How likely are you to attend the next ISIE Conference in Singapore in 2025?

N=170



#### 3.2. Suggestions or remarks for the next ISIE conference in Singapore 2025

43 Statements:

- Abolish plastic. It is oxymoron to organise a conference about "saving the planet" and then offer horribly tasting vegetarian food wrapped in plastic packaging. Offer local food, hire local cooperatives that could cook for you with local fresh ingredients. Make your conference regenerative.
- Asian biomass resources should be included in the special sessions.
- Better selection - quality beats quantity.
- Due the distance and high environmental impacts caused by the flight from central Europe it would be easier/better for me and the environment if I participate online.
- Earlier acceptance would be better for flight/accommodation booking
- Earlier release of program might be helpful.
- Have available printed programs. It can be even a couple of big posters in the info point location so people can check. Include the gala dinner cost with the registration fees. Extend the time for the 5min presentations
- Hybrid always makes it more complicated to organize, less fruitful and you miss out on the networking. Starting on Monday instead of Sunday would be better. I would not continue till Friday as often everyone wants to travel back already before the weekend. I suggest to first inventorize sessions and then fill them with presentations instead of the other way around. It will also give everyone the opportunity to suggest sessions and thus a larger variety of chairs
- I cannot get financing for the conference as it is very far from Europe. Also registration is very expensive. The society should think about it and look for extra ways of financing the conference. Attendants pay twice: one for being members and another one for registration,
- I have long attended ISIE conferences but might find it hard to pay for a trip to Singapore. It was nice when we rotated between Asia/Europe/Americas.
- I might skip it because of the high C footprint or I will have to combine with my vacation
- I think it is a good idea to consider expanding the conference to be a few days longer or the daily limit to be longer, as it would lighten the load of multiple parallel sessions and allow participants to attend more sessions.
- I want to go to all ISIE bi-annual conferences but hesitate to travel overseas (based in Europe). Hybrid format would help.
- I would love to join the conference. I love the sharing knowledge and networking aspects of conferences. I understand their importance for engaging future collaboration and a thriving research environment. However, in a context where we would like the population to fly less, I feel I cannot travel that far away. Thinking about some parallel conferences or some hybrid format would be interesting.
- If it becomes hybrid, I may attend, but I will not go there.
- If you want people to know young researchers (so they can nominate young researchers for the awards), perhaps invite a young keynote speaker under 40 years old. Give the young people also a voice.



# 11TH INTERNATIONAL CONFERENCE ON INDUSTRIAL ECOLOGY: TRANSITIONS IN A WORLD IN TURMOIL

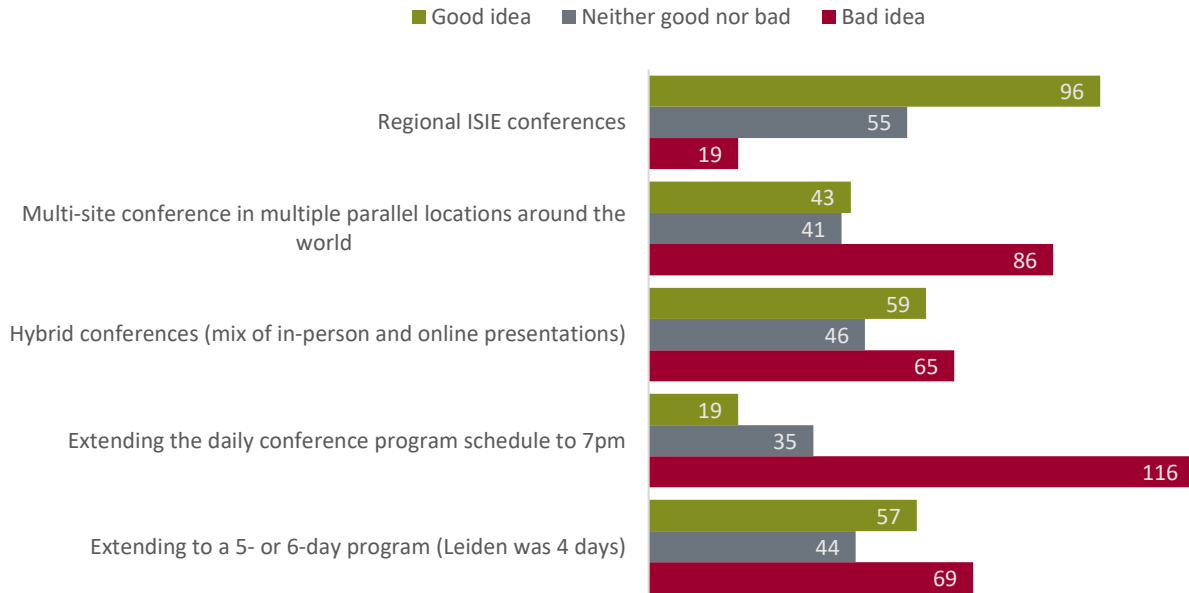
JULY 2-5 2023, LEIDEN,  
THE NETHERLANDS



- I'm excited about it and hopeful about attending, it will come down to finances and time. I think it's great to have the conference in this geography regardless of my ability to get there and I hope to make it. I love the idea of regional meetings to keep continuity around the globe when people can't afford to make it, and especially may be unable to sponsor student travel. I appreciated ISIE student travel support as well!
- I'm not sure when peak season for travel to Singapore is but it would be great if the conference is not during peak season to keep the accommodation costs down (while also keeping in mind that most people are better able to attend between semesters)
- Improve the food service and offer please. Food is important to stay energetic and motivated.
- Informal activities after conference (dinner, drinks, visits) to help networking with people that are not directly linked to Industrial Ecology (newcomers, phd students, others).
- It is gonna be very hard to get there with low emission transport :(
- Limit the number of presentations, avoid too many sessions at the same time.
- make it possible to participate without flying (European)
- More local hotels or lodging.
- More practical example by showing what Singapore is doing...
- No short presentations (5 minutes), keep the 12 minutes presentations as the standard. Get a business person, inventor, or inspiring person outside of the field as a keynote.
- not worth the flight for me
- One venue please.
- Pick some of the best oral presentations to fill keynotes - they were some of the best presentations all week
- Please don't make it a too fancy conference (the video was a bit too affluent of a life style...)
- Please make it hybrid. Given substantial travel emissions it would be really sad not to allow people to join online.
- Please mark the allergens clearly on all food served.
- Please try to provide the acceptance notification at least 5 months before the conference so that we have enough time to get visa and arrange out travel itinerary
- please vegan food. Please be in a central location
- Singapore is about 5x MORE ADVANCED than the west. A tech type of theme from the cutting edge (Singapore) could be good and we could do more exploration/field trips as the island is small and easy to get around. We also need the people element carefully attended do. Food in Singapore comes from every nation and could be a theme for the gala dinner and other food ops. Leveraging the very different paths Sing. has often taken could be highlighted, for example, public housing, and climate action
- Skip all plastic items. Don't make people fly across the globe, especially researchers who literally fight for reducing our overall impact. Offering vegetarian options is not only nice but mandatory. However, please opt for better quality next time. It doesn't have to taste like what we tasted in July. It was truly unacceptable quality especially for the amount of money that was requested. Did I mention that you should skip all the little plastic items etc? Reduce, reduce, reduce. Rethink first.
- Special sessions seemed to be a way of bypassing the review process of the main sessions due to which quality in special sessions was quite variable.
- The choice of Singapore is not consistent with climate goals. Nearly everyone attending will have to fly at minimum 2 hours to attend.
- Too far and too expensive.
- Try to encourage sustainable traveling
- unfortunately I won't attend due to the location - ISIE should have more strongly encouraged someone in the Americas to host.
- Will not fly for conference, Multi-site would be great.
- Without a hybrid format, I will find it difficult to justify the flight.

### 3.3. What is your opinion of the following ideas for future ISIE conferences?

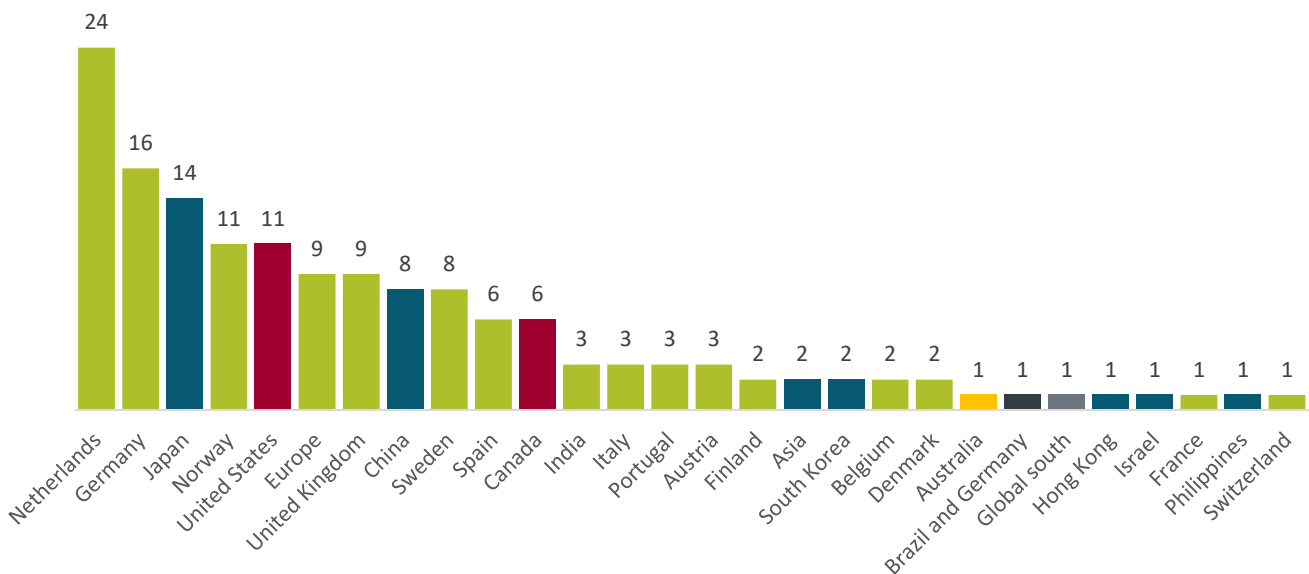
N=170



## 4. sustainability and environmental impacts

### 4.1. Where did you travel from?

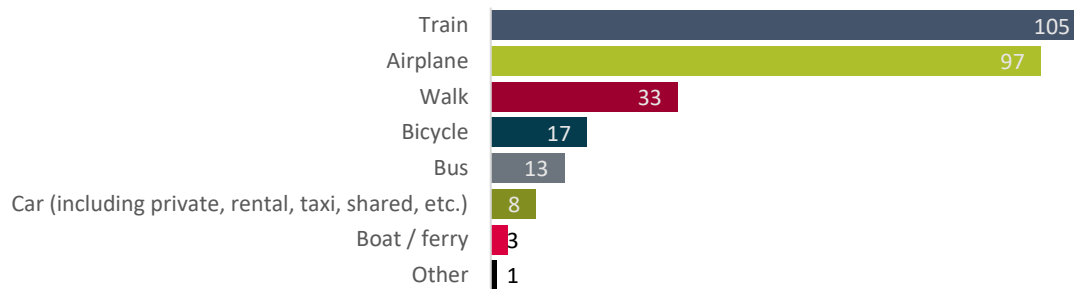
N=152





4.2. What were your main modes of travel to and from Leiden, The Netherlands?

N=170, selection of multiple modes possible



4.3. Were there any practical alternatives to this mode of travel?

N=167

No. of responses	Alternative mode
121	No alternative
14	Airplane
1	Airplane, car
1	Airplane, train only
1	Bus
1	Bus, car
1	Bus, car, walk
5	Car
2	Car, Airplane
2	Car, Airplane, Bus
1	Car, walk
1	If I lived in a society that granted me time, I'd happily get on a ship for a week or so.
1	many
3	Train
1	Train (12 hours)
1	Train both ways, but time was a limiting factor
1	Train but 23h of it
1	Train but very long and more expensive
1	Train on the way back as well, but that would mean extra expenses. I am not sure my uni would be happy to pay them. I have taken the train from Sweden to Leiden. That meant extra expenses for traveling+hotel
1	Train only, but would have taken 14 hours
1	Train perhaps , but it didn't seem very practical
1	Train, A 1- day or more journey
1	Train, depends on how "practical" is defined
1	Walk
1	walk or public transport
1	Yes

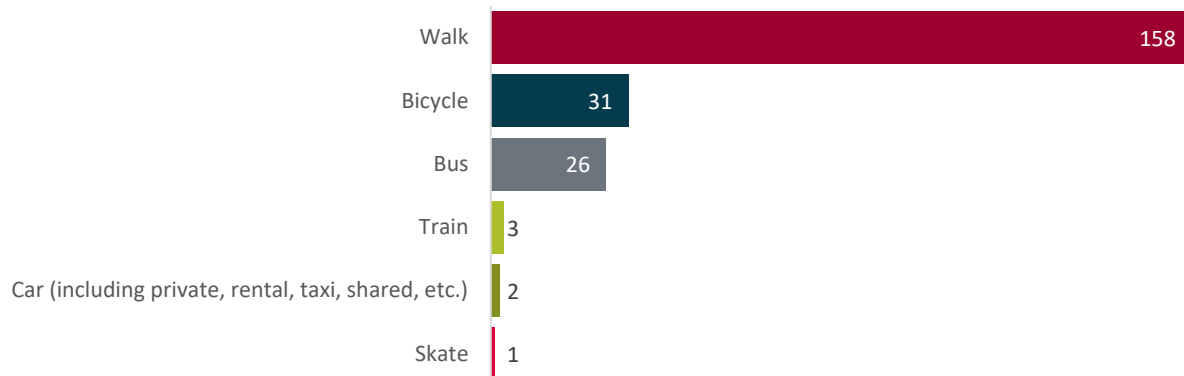
4.4. Did you offset your journeys' carbon emissions?

N=170

No. of responses	Did you offset your journeys' carbon emissions? - Selected Choice
152	No
2	Yes (no details)
2	No carbon emitted during my journey!
1	Almost no emissions (old bike and walking)
1	by my organization
1	By the air ticket type
1	CO2 neutral journey taking eco-electricity power DB trains
1	I bought tree planting. They plant trees where they were cut or destroyed in a fire
1	I walk from the Leiden Train station to the University
1	It is already zero emission mode :)
1	my University has its own offsetting system managed by our own researchers
1	Norwegians offsets
1	Purchased offsets through airline
1	Somehow my carbon footprint was low since I was only taking public transport + walking.
1	Through Airline offer to add cost of carbon to ticket
1	Walking and cycling to work
1	We used E-tickets and took the public transportation as our first choice in the cities.

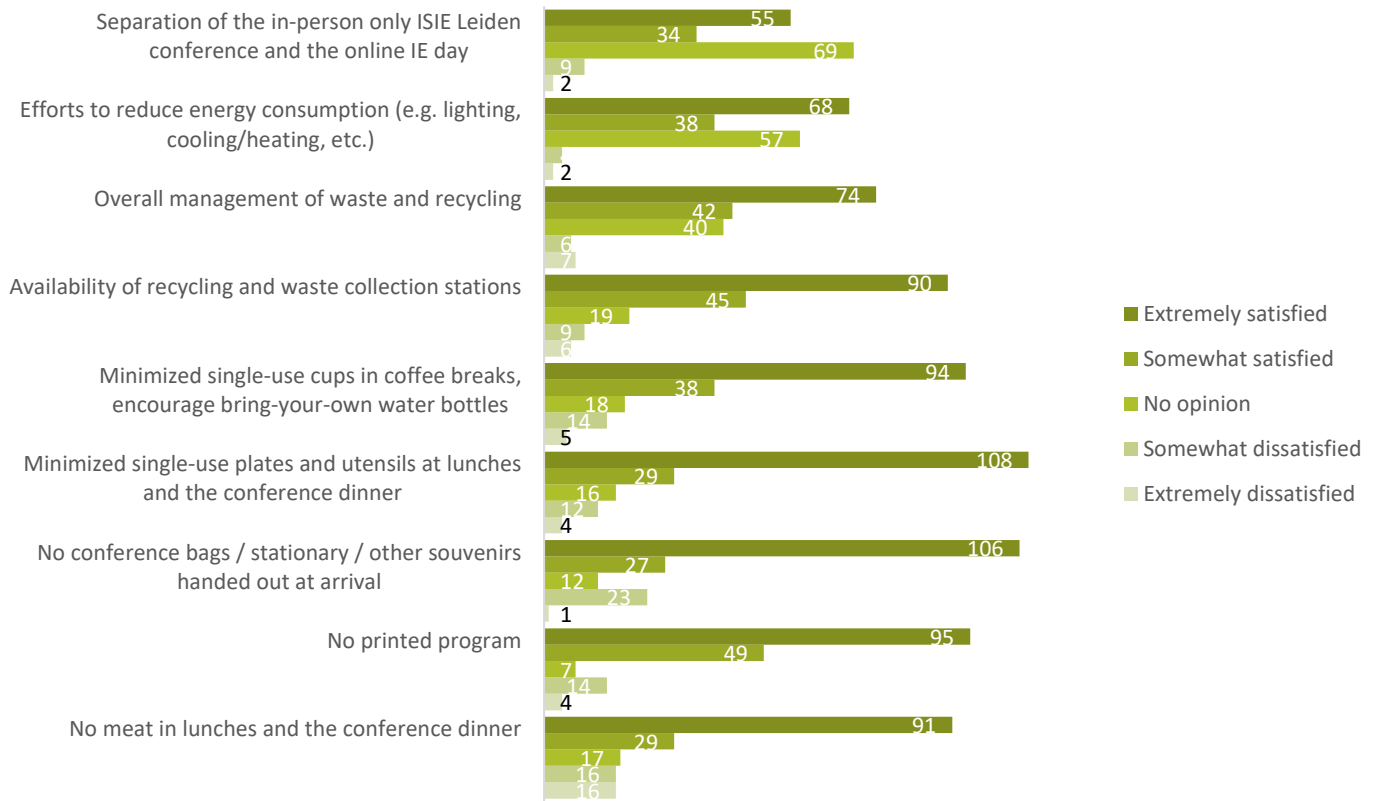
4.5. What were your main modes of travel within Leiden during the conference?

N=170, selection of multiple modes possible



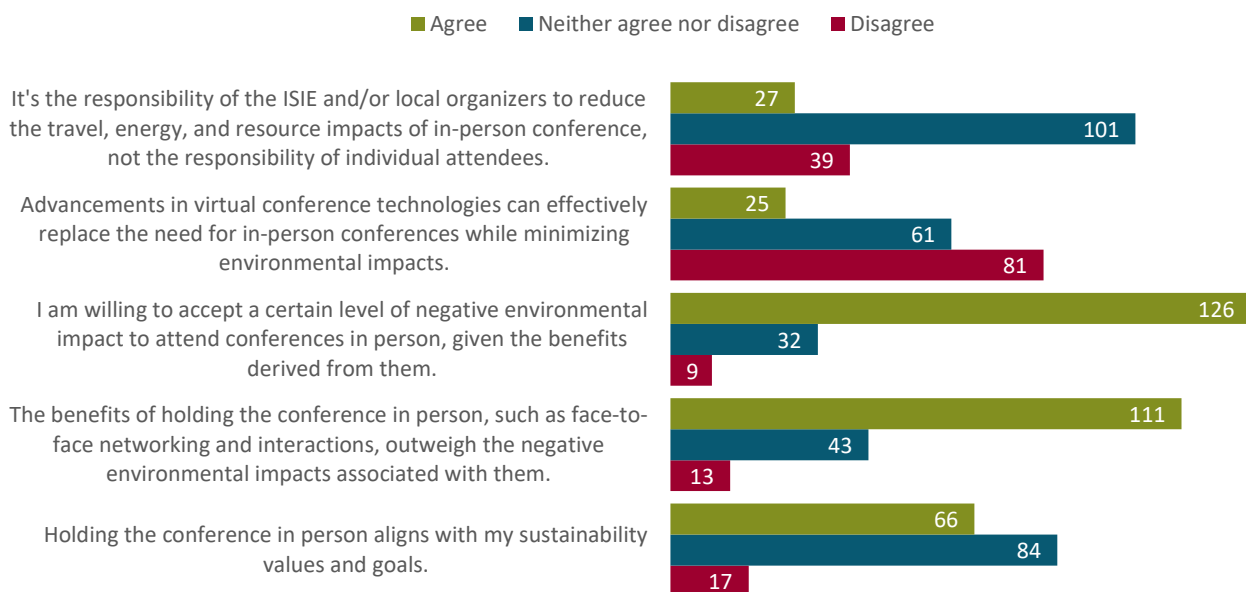
4.6. Several sustainability efforts were attempted at ISIE2023. What's your assessment of them?

N=169



4.7. Do you agree with the following statements?

N=167





#### 4.8. comments or suggestions regarding sustainability of ISIE conferences

##### 52 Statements:

- Advanced technologies will never outweigh the benefits of in person meetings. Unfortunately, we as academics must give the right example and be the first to do whatever we can to reduce the footprint. Otherwise we become an oxymoron. Do not just offer the possibility of hybrid. Make it mandatory to reduce the footprint. I should not be "forced" to travel to Singapore to disseminate my research. I mean, Singapore is great but we should focus on science, not "science-tourism".
- Again, multi-site sounds great for me but I see why others would disagree. I will certainly not fly for any conference in the future.
- Also attendees are responsible for footprints
- Choose location so that the likely total travelling is minimized. My guess would be that this would result in a location in Western Europe or China.
- For PhD and other students, Ladder professors, Old timers - all groups greatly need to get to know or catch up with the people of ISIE. Singapore is far away and we need to get going with money raising already.
- good work! i reacted a bit on the service attendants flying from the conference got when weather conditions stopped the trains (bus to airport) when long distance train travelers got non. however, I understand why.
- Having regional conferences would be great (but then this lacks diversity) - I wonder how many Europeans/Americans will go to Singapore for sustainability reasons. Virtual conferences have challenges that, to overcome, require a highly engaged participation. I'd be hesitant with online-only. I think there's no simple solution. The no meat, ceramic plates at lunch were welcome - bravo for the effort!!
- holding the conferences online would be a huge loss.
- Hybrid conferences are a pain to suffer through and should only be used as a last resort. It just doesn't work for networking at all and that's the major value of a conference. Online IE days can supplement in-person events for knowledge exchange
- I am torn about the benefits of an in person conference versus a virtual one. I was extremely happy to have the opportunity to see the Netherlands and beautiful Leiden. I would understand if future conferences were online or regional to improve sustainability, but more effort would need to be put into making meaningful discussions possible, such as breakout rooms, moderated discussions, etc.
- I attended this conference because I could attend without flying.
- "I did not see the minimization of coffee and tea cups during coffee breaks. The tea was awful by the way.
- It could help by selecting a location that is a bit in the center of traveling, so many people can come by train, such as central Europe. Singapore is not the best for sustainability, which is holding me back to travel to"
- I think in-person conferences are irreplaceable, efforts should be made to minimize their environmental impact and it is a joint responsibility between organizers and attendees to do that. e.g. choosing a low-emission mode of transportation whenever possible.
- I think it is both the organization's and the individuals' responsibility to reduce environmental impacts associated with events and work travels. In some cases, the fact that the food was already served in single-use plates/bowls, etc. didn't allow reuse - that was the only easy improvement I could identify during the conference. And more information about the food would reduce food waste!
- I think it is the individual's responsibility to reduce their travel, energy and resource impacts of an in-person conference. However, as people (me included), are lazy, I think this will be more effective if the conference organizers provide easily accessible options to reduce these impacts for each individual (providing collective buses, instead of people taking taxis; providing/highlighting options for bikes during conference, etc.)
- I think it would be nice to have a keynote speaker telling us about the future plans for international travel. What are the plans for speed-trains in and to and from Europe and Asia for example?
- I think one big biannual international global conference is sufficient, so either the GRC or the ISIE-conference. Maybe the GRC can be promoted more as a regional event.
- I understand that lunches during the conference at the church were intended to be somehow gourmet, however, the waiting time for entrees and lunch was too long and made people leave the church and go find food somewhere else, generating food waste at the end. For the arrangement (poster session while eating) sandwiches would have been a better idea.
- In person events and networking are needed to foster collaboration.
- In the same line of the second question: I am not willing to fly very far (like Singapore) for just a conference. There are things I will just not do.
- ISIE can advocate among its members to offset carbon footprint of attending a conference. They may provide a bunch of measures that can be followed to offset e.g. public transport, walk, bicycling, vegan food etc. May be a carbon offset calculation link can be helpful
- ISIE is the only international conference I travel to because of climate change impacts. I still think occasional in-person meeting is important, even with the impacts it causes.
- ISIE should be moving towards more regional conferences for revenue generation.

- Its everyone's responsibility to practice what we preach, which means minimizing our environmental impacts as much as we can; as individuals as well as organizing society. There are also multiple structural constraints to any role (individual, organizer, career levels, intersectionality), which have to be acknowledged. I think that a mix of online events and some well organized in-person events is a very good way forward for the ISIE, maybe with greater weight given to regional meetings.
- Just a clarification that I believe it is a shared responsibility of the conference organizers and the individuals (and the organizations the individuals represent).
- Keep ISIE conference maximum of 4 days.
- keep the vegetarian food and no-paper policy. choose locations that are easily reachable and offer sustainable transport options within the conference
- Keep them in Europe
- keep with vegan options - and guarantee the staff knows what is vegan or not (I am vegan and I experienced some confusion regarding it)
- mixed-mode should be standard, I personally always try to combine work trips with leisure or other appointments, but it will be hard to avoid / it's painful to restrict to not flying
- More regional conferences should be offered. Participants should avoid cross continental flights, unless they have other activities that complement their stay in the country. A flight for 4 days from Australia to Europe I find it not worthy.
- More regional events and less global could be an option to reduce travel. Similar to sustainable built environment conference series.
- More vivid tips to teach how to throw the trash into the waste and recycling bins, we are familiar with rules for waste collection, so somehow we cannot correctly do it even if we want.
- Not having swag was nice, but a printed program is really valuable. And the app kept draining my phone's battery. I would be curious the difference in environmental impact of the app usage versus a paper copy. You could have people who want a paper copy pay extra for it, like \$5.
- Offset to gain nature positive benefits. Every business venture should be doing that. Offset climate and biodiversity damages so ISIE conferences have nature positive outcomes. With business partner certifiers we develop LCA and EPDs to enable and declare Nature positive outcomes.
- perhaps we could hold in-person IE regional conferences and on-line global conferences.
- Perhaps you could highlight the sustainability goals of the conference.
- Regarding digital program - I really missed an pdf version where you could easily scroll through and highlight interesting talks. Ex or do was just too much clicking to see details.
- Regarding the last question: yes, by making hybrid conferences mandatory, ISIE could contribute to make conferences more accessible while reducing emissions.
- Some form of hybridization is needed. Although we can sometimes justify travel, it is not clear that it is justified for all participants. Regional alternatives might be helpful.
- Sustainability is a commitment for all (ISIE + Individual) and it does not mean to extend to extremism or fanaticism of being green. Some of the above questions I did not see an action at ISIE 2023 Example: reduction of one way cups. It was replaced the conventional cups for biodegradable ones. No meat, but full sugar. If the approach is sustainability, the conference could offer organizers to give support and offer engaging initiatives for Heather environment.
- the answers to the above question are very case specific...
- The IE day and additional, smaller, regional and section conferences will reduce the travel needs and create more opportunities for shorter distance travel for researchers in the field. However, one big conference every two years is needed for the field of Industrial Ecology to meet, elaborate, and have a meaningful impact.
- The mixture of in-person conference and ISIE days would be a good solution to reduce the number of similar topic parallel sessions.
- The number of single-use cups was immense. Idea would be a deposit system for cups
- The possibility to attend virtually is important and should be further developed.
- The recycling stations were hard to understand, still a lot of single use cups used during the breaks
- The responsibility is of course shared between the ISIE/local organizers and the individual attendees.
- There is only so much individual meetings can do to minimize impacts. Ultimately the local infrastructure plays a major role. In this regard The Netherlands is a great choice of venues. Not so sure about Singapore.
- This is such a difficult issue. I do feel that talking in person is critical to connecting with people and being able to speak freely. Online conferences, even those with capacity for people to "walk around and chat," or with lots of curated breakout discussion time don't really enable the sort of interaction that can be had in person. Regional events might help to minimize travel. Some online programming also serves people with mobility concerns, if a hybrid is possible (I know it's hard!).

- Unsatisfying food just make people consume extra food outside the venue. The organizing committee should think systematically to reduce the impact from the conference, not just minimizing the footprints of the conference that you can calculate but pushes people to consume more overall.
- Wondering if the strings of name tags could be replaced with something more circular - made out of degradable materials or lighter.

### 5. Respondents' general statistics

N=163

