Slide #	Time allotted	Script
1.		Land acknowledgement Today we are grateful to be on << complete the land acknowledgement for your location>>
		Facilitator notes: Offer a land acknowledgement, based on your location. You can add a map from https://native-land.ca/ to the slide, if you choose (double check this information with local sources)
		For example: I would like to acknowledge the respective, ancestral homelands of the Musqueam and Tsleil-Waututh people, as well as 13 other Coast Salish First Nation communities from the Fraser Valley and Vancouver Island, and wish to extend our appreciation to all these First Nations for the opportunity to host this meeting here today upon their shared territories.
		Learn more about land acknowledgements and their importance from the <u>UBC Library page here</u> , or through the sites in our resources section.
2.		Ground rules and norms So here are our suggestions for ground rules and norms that we will all observe in the four hours that we're going to be together this morning.
		Facilitator note: At this point, identify the fire safety protocols and any additional safety information that is required.
		We do expect this to be a very interactive session. You will be responding to us and interacting with the group as well as with each other for paired work and doing some group exercises as well. We hope that you will be as candid as you possibly can. We really appreciate your honesty and forthrightness and you'll get more out of the workshop this way.
		When you are listening to someone else sharing you will practice active listening. This means that you will invite that person to say more about what they're sharing by asking them open ended questions such as: "tell me more about that", or "what was that like", or "how did that feel", to allow them to further explore their experience. You're not going to jump in with criticisms or judgments or "well I have this other story" when we're in active listening mode. We are just helping the other person share more. And we want respect each other's' privacy. We're going to be doing some more introspection and sharing of a more personal and reflective nature. So if the story is not yours to share; please do not share it outside of these walls. Do we have everyone's agreement hand up if you agree to that? Thank you very much.
		Since we really do appreciate that you're taking time out of your busy schedule to be part of this workshop we encourage you to engage fully, as

that will help you make the most of your time here today. We will be offering suggestions, tools, tips that you can take away from this room and integrate into your everyday way of doing things. This is another way that you will recover your investment of this day, so we encourage you to participate fully and commit to the things that you learn here. Final thing, we'd like to ask you to minimize distractions if you do need to step out to take a phone call or answer an email or a text please, just do so in the hallway and come back as soon as you can.
the hallway and come back as soon as you can.
If that's good with everyone, are there any other suggestions questions comments about this?
Okay if we can agree to live by these rules for the next 4 hours we're going to have a fantastic time together.
Road map
So here's our agenda for the morning.
We are going to break at about 1.5 hours after we finish some of our introductory stuff around how and why we work together. We're going to talk about some barriers to inclusion.
After that we'll be doing a dialogue activity aimed at communicating inclusion and then some steps to put all of what we've learned into action through something called allyship. If you haven't heard of that, you will hear about it and we hope to become inspired to be part of it by becoming an ally yourself. And don't worry, we're going to give you lots of opportunities to interact and do fun, interesting activities. And at the end, there will be lunch.
Facilitator notes: Take this opportunity to identify if there will be refreshments or lunch
provided.
How we work together Please take a moment to introduce yourself at your table. You will have x minutes to do this. Please keep introductions short, you will have lots of opportunities to learn more during this workshop.
Facilitator notes: Add any suggested introduction elements to the script above (e.g., please share your name, type of work you do, and pronouns you use)
How we work together
Note, that if energy level seems low, start by mentioning that this is a competition for chocolate. Then give ground rules.
So first, let's start out by how we work together. We're going to give you a chance to do something experiential. You are all seated in table groups.

Now, using only the sheets of paper that are on your table, you are going to work as a team at your table to create a tower out of paper. We're not giving you anything else and we are just going to have to see what you come up with in terms of methods to make the tallest tower possible.

It has to stand for 15 seconds with no support from any humans or other things and you're going to build the tower on the table not the floor. Please measure it at its highest point while it is up during that 15 seconds with the tape measure provided on your table. And if you can just wave one of us over, we want to get a picture of your tower when it's up.

There will be a prize, so do your best. We will give you 10 minutes and we are encouraging you to use the first 2 minutes to discuss and plan before you begin building.

Please take those 2 minutes to get a plan underway and then you'll have eight minutes to build so here we go I'm hitting "go". Any questions? No questions? Okay, your time Starts Now.

So now that we've had a chance to build our towers, we are going to discuss this activity a little bit later. We want you just to take a moment to consider some of your experiences.

Think about what you saw that worked, what didn't work well. But please just hold those thoughts and we'll get into them a little bit later.

Facilitator notes:

Note, that if energy level seems low, start by mentioning that this is a competition for chocolate. Then give ground rules.

Teams will be timed while they build their towers. A facilitator/other staff of your choice will measure height of towers either when signaled to come over or at the end.

Took one minute give instructions + 10 minutes for building + 2 min to dismantle (15 min allotted)

Ensure at least a few of the tables are given paper of different thicknesses, e.g. one group receives cardstock while another receives printer paper. At the end, after the tower has been measured, ask the leaders to dismantle the towers and move the paper to the side of the room. If possible, place recycling bins in the workshop space/room.

Why we work together

6.

- Time is up! Our team will be coming around to measure your tower and snap a photo.
- We'll return to talk about this task a little later in the morning.

	 Now that we are reminded of the challenges of working together on a project, under time pressure, let's think a bit more deeply about this question: Why do we work together? And perhaps more specific to the work we do as scientists/engineers, why do we work together to do the kind of work we do? What do we gain from working as a group?
7.	Rise Workplace Culture Survey 2018
	The creators of this workshop, the Project RISE team, have data to speak to this. In 2018, Project RISE carried out a Workplace Culture Survey with 1259 STEM employees, and overall you can see the diversity in sector, age, and status in the field.
	An important point to note is that in today's workshop, we are often describing research related to those who self-identify as either being women or men, or the stereotypes we all have about binary gender categories. But we also recognize that not everyone sees themselves in gender binary terms, and it is valuable to keep space for the experiences of broader forms of diversity that might be represented in our group.
8.	Three core values in Science and Engineering The research team took all of the responses they got from those 1259 people and identified 3 core values that most people responded to as being very important to them.
	There's <u>personal enrichment</u> , which is all about what's in it for me. I don't think there's anything wrong with wanting to have a successful career, a lucrative career, something that makes you feel like you're upholding a calling.
	Next is intellectual stimulation, which is all about that curiosity and drive to solve more complex problems and do more interesting things. This is also a big driver for folks who work in science and engineering,
	And finally there's this <u>sense of wanting to give back</u> or serve a broader purpose, serve the community. Making sure we protect the environment or take care of the people in a specific community or around a certain project.
9. 5 m	
10.	What is your top-rated value category? So you have completed the values questionnaire. I would encourage you at this point if you haven't done so already to take a moment and score yourself on these different values.
	NOTE: Participants cannot score their Values Worksheet until we provide this scoring key.

I	
	 Participants are asked to retrieve the value reflection questionnaire. If participants have not already completed the questionnaire, they can do so now before proceeding to scoring. Participants who have completed the value reflection questionnaire may proceed to scoring. Scoring procedure:
	Each value category is separated by its position in the 4 blocks:
	 Category 1 – Personal Enrichment – first value in each block (4 total ratings) Category 2 – Intellectual Stimulation – second value in each block (4 total ratings)
	Category 3 – Communal Engagement – third value in each block (4 total ratings)
	Participants should sum up their 4 ratings (ranging from 1-7) for each value category to yield 3 different total scores (scores can range from 4-28).
	The value category for which participants have the <u>highest</u> total score is their top-rated value category.
	Once all participants have completed the value scoring process, they may proceed to paired discussion.
	Let's start the conversation
	Next you're going to have a conversation with the person beside you, who should have the same colour sticker as you on their name tag. That is your conversation buddy and you will be chatting together throughout the workshop.
5 mins	Question set 1 Did many of you find that you share similar values? (to get the head nod)
	Facilitator note: Don't make salient that they might have different values.
	The first conversation we'd like to invite you to have is about your values. Which of the three values came out as highest for you?
	There is no right or wrong answer but we're inviting you to reflect on that value and say why is that important for you in terms of connecting to your chosen field of science or engineering. Or how does that value show up for you as important in your day-to-day life?
	Then your partner is going to chime in and say why they think that <u>your</u> value is important to the field as a whole. So you're both looking at <u>your</u> value initially and then you're going to switch and you're going to talk about your partner's specific value. They are going to explain how that value is important to them personally, and then <u>you are</u> going to say why that particular value is important to the field as a whole and what that means in terms of bigger picture impact.
	5 mins

10.	Moving beyond these values, when we talk about diversifying our workplaces there are many challenges and opportunities that exist.
15.	Facilitator notes: Shnabel et al. (2013) – writing about how value connects one to other people is especially effective for negatively stereotyped groups. One key feature of this component should be how these values connect scientists/engineers and help them function together Diversity: Challenges and opportunities
14.	 All three values matter to STEM professionals The RISE data on these values suggests that all three values are rated as being highly important And among these three, intellectually stimulating-problem solving is a highly important shared value. In fact, it's often the basis for how we describe our careers as scientists/engineers.
	Facilitator notes: Facilitator organically mentions other themes that have been brought up in the larger group, if any. Avoid adding too much time to this slide by keeping to one or two extra points.
	 In fact, our organizations and the people in them tend to function best when our work integrates these different values 1) When people find personal enrichment → they do their best intellectual work 2) Innovative solutions ¬> are needed to benefit broader society 3) Working for the good of society → often create a strong feeling that work is personally meaningful.
13.	Shared goals You have now had a chance to talk about what these values mean to you personally, and to the field more generally. And what you might have already recognized is that these values overlap to come degree to provide a motivational backdrop to our shared goals.
	Facilitator notes: Popcorn on why each of the three values are important to the field
	Even if you listed a top value different than that of your partner, how many of you were able to see how that value is important in your field or organization?
	shared goals and values. How many of you had the same shared value as your partner?
	All right, so something that we can see is that you many of you probably had
	Anyone have any questions? You both have 5 minutes to discuss both your values so I'll cue you to move along. Thank you so much.

16. **Key challenge: Managing differences in groups**

Although managers sometimes worry that diversity can get in the way of successful team dynamics, research suggests that a much bigger problem is having team members who are all encouraged to think about problems from the same homogenous perspective.

- In science and engineering, its critical to guard against group think.
 We need to capitalize on differences in perspectives, expertise, and experience.
 - need the best work and ideas from all team members;
 - need effective communication
 - it's a problem if some feel disconnected from the team, the organization, the work

Because of this, research often suggests that the teams that make the best decisions are the teams that are demographic diverse, where everyone's opinions are values, and where decisions focus on the strength of evidence not the need for consensus.

Why do we care about diversity and inclusion?

This discussion brings us to a central question that will ground the rest of what we do together today: Why do we care about diversity and inclusion? It's one thing to care about getting things right and hearing everyone's opinion, but why do we care about demographic diversity (and in particular gender diversity in STEM) as one means to get there?

Diversity and inclusion isn't just important for individual well-being, but also at the organizational or institutional level. One indicator of inclusion – or lack thereof – is the degree to which men and women report a belief that others at work judge them based on their gender. At some organizations in RISE's studies, women reported concern that their gender influences how they are perceived by others at work at significantly higher levels than men in the study. Overall, about a quarter of the women sampled agreed that they experience this judgement frequently in their workplace. We know from existing research that these concerns of judgement undermine women's feelings of inclusion and belonging in their STEM workplace.

In addition to the well-being of individual employees, we suggest there are three good reasons at an organizational level to care about inclusion. One has to do with the quality of the work we do.

In science, the very questions we pursue are often guided by our own experiences. When science is done by a homogenous group of people, certain questions go unstudied. Diversity in science, therefore, helps to yield a more comprehensive knowledge base.

17.

	In addition, diverse team are often more creative and cognitively flexible. They might disagree with each more, but the result is often a better and more innovative solution.
18.	Facial recognition failures There are many salient examples of how a lack of demographic diversity on teams has led to key problems in the final product.
	For example, Joy Bualamwini, a computer scientist at MIT, has spoken publicly about how first generation facial recognition software could not detect her face because it had only been tested on light skinned faces.
	This is her with a white mask that she would to wear to be seen by this software.
	Facilitator notes:
	You are welcome (and encouraged) to find recent or more field specific examples of how lack of diversity affects STEM productions. Below is an alternative.
	https://www.theguardian.com/technology/2017/dec/04/racist-facial-recognition-white-coders-black-people-police
	http://fortune.com/2018/09/14/fight-algorithmic-bias-joy-buolamwini/ https://www.washingtonpost.com/technology/2019/10/22/ai-hiring-face-scanning-algorithm-increasingly-decides-whether-you-deserve-job
19.	Safety failures A lack of diversity at the design stage can also have implications for public safety. Until quite recently, all Crash Test Dummies were based on an average-sized man and as a result, women and children were more likely to die in car crashes.
	As this quote says men simply didn't think to design for people unlike themselves.
	This specific problem has been corrected but it's another reason that we need to get this right.
	https://medium.com/@AnnaJS15/where-are-all-the-female-crash-test-dummies-a1391795be41
20.	Why do we care about diversity and inclusion part 2 These examples highlight how having a more diverse group of people designing products can lead to better outcomes that benefit more of humanity.
	These benefits can also help to make an economic or business case for diversity.

	And, in fact, some research suggests that companies perform better with more women in leadership positions. Not to mention the fact that diversifying the [pool of available workers/talent pool] can help us meet labour shortages in many careers.
21.	An economic case
	For example, research has shown that Fortune 500 companies with more women on the board of directors outperformed companies with less.
	These financial benefits were seen both on return on sales and return on invested capital. Why did these companies benefit from greater female leadership?
	The authors suggest that it is a combination of having greater innovation, greater access to talent, and improved government.
22.	Why do we care about diversity and inclusion part 3
	The third and—many would argue—most important reason to care about inclusion, is the simple fact of fairness.
	Before the industrial age, men would often work for payment outside of the home, relying on women to mange domestic work and full-time childcare. But since the early 1900's and into the information age, cultural and technological advances have allowed us to break clean of these traditional divisions. This creates extraordinary opportunities because we have women who are skilled and dedicated STEM professionals, and men who are exceptional at domestic work and creating a family home. So there really is no objective reason to pigeonhole people into different roles. Instead, we want to promote equal opportunity for anyone to do what they want to do regardless of who they are. And yet these longstanding gender roles can create hidden, structural barriers to women's inclusion in STEM.
	If, as we will argue a bit later, there are currently barriers to fully including women and other underrepresented minorities in science and engineering, then how can we, as the expert problem solvers that we are, work together to dismantle these barriers?
23.	Design task: who was the most successful? Let's think a bit more about fairness by going back to the design challenge we had the start of the morning:
	 The winning tower was:>
	< <ask group="" members="" of="" that="">> Can you talk about your approach and why you think it was so successful? </ask>
	< <asking all="" participants="">> What helped this group succeed? Did any of you notice any systematic advantages that this group might have had? </asking>

ut the
of us
ss for
ssion
e the
hared
lems.
er to
cuss
e to
S.
is
what
sing
k of
ed on
more
for
dy,
<u>-</u>

	So, if you've ever had the experience of driving home from work fully intending to stop at the store and suddenly you realize you're sitting in your driveway and you don't really even remember having made the turns that you made, you realize that your brain has this capacity for navigating a 2-ton vehicle down the road without consciously thinking about it. That's our reflexive system in action.
	This reflexive system is quite functional – it allows us to accomplish things on based on the well-practiced procedures, and neuroscience research suggests that different neural systems underlie these two modes of processing.
29.	Reflexive system falls back on stereotypes
	But when it comes navigating interactions in a diverse world, problems can arise because this fast-operating reflexive system all too often falls back on using stereotypes as quick ways to make sense of people.
	And these stereotypes themselves get automatically learned by the reflexive system from the roles that people have in the world around us .
30.	We assume people are what we see people do
	In other words, it is because we have an automatic tendency to assume that people are what we see them doany unequal distribution of men and women in different occupations is actually what leads to the gender stereotypes we have.
	If we see that more women take on jobs as teachers or nurses, our reflexive system assumes that women are just more caring people.
	And if we see more men in engineering and as CEOs, then we assume the men are inherently mechanically minded and leaders.
	But research on men's and women's personality traits and abilities does NOT actually show large gender differences to back up these assumptions .
31.	How different are men and women really?
	How different are men and women really?
	Let's put this question in perspective by first looking at differences in height. It's a fact that men are, on average, taller than women. The average gender difference in height is quantified as a <i>d</i> of 1.72, which means the average height difference between men and women is just below 2 standard deviations – that's considered a very large effect. But even so, these are overlapping distributions where a good percentage of women are still taller than a good percentage of men.
	In psychology, for over a half century or more, people have been designing tests to measure personality traits, cognitive abilities, and behavioural tendencies. Researchers have recently synthesized all of these data to

than they are different. There are tiny average differences amounting to a fifth of a standard deviation. Importantly, this analysis averages the absolute values of the differences, meaning any traits favouring women and traits favouring men cannot just "cancel" each other out. This varies based on the trait one is looking at, but the degree of overlap is striking. On relevant measures like math ability and leadership effectiveness, there are no overall gender differences that can explain or justify the low number of women in STEM. But yet, we still tend to have an automatic stereotypes that associates STI more with men than with women. How do we measure implicit associations How do we measure these persistent implicit associations? Over the past two decades, researchers have created and validated measures we can use to quantify these implicit associations that underlie our reflexive use of stereotypes. Implicit Association Test We can do this with something called the implicit association test. Implicit associations are cognitive links between concepts that co-vary. Is clouds, you think rain because your reflexive system has learned to link the two together. And to the degree that there are still more men and women engineering, we can expect to see the same thing for a link between engineering and male. These implicit associations are distinct from our explicit intentions. So It doesn't matter if we want or intend to associate engineering more with			answer the question about overall average differences based on gender. What do they find?
than they are different. There are tiny average differences amounting to a fifth of a standard deviation. Importantly, this analysis averages the absolute values of the differences, meaning any traits favouring women and traits favouring men cannot just "cancel" each other out. This varies based on the trait one is looking at, but the degree of overlap is striking. On relevant measures like math ability and leadership effectiveness, there are no overall gender differences that can explain or justify the low number of women in STEM. But yet, we still tend to have an automatic stereotypes that associates STI more with men than with women. How do we measure implicit associations How do we measure these persistent implicit associations? Over the past two decades, researchers have created and validated measures we can use to quantify these implicit associations that underlie our reflexive use of stereotypes. Implicit Association Test We can do this with something called the implicit association test. Implicit associations are cognitive links between concepts that co-vary. Is clouds, you think rain because your reflexive system has learned to link the word to the degree that there are still more men and women engineering, we can expect to see the same thing for a link between engineering and male. These implicit associations are distinct from our explicit intentions. So It doesn't matter if we want or intend to associate engineering more with	32.		Men and Women Are More Similar Than Different
deviation. Importantly, this analysis averages the absolute values of the differences, meaning any traits favouring women and traits favouring men cannot just "cancel" each other out. This varies based on the trait one is looking at, but the degree of overlap is striking. On relevant measures like math ability and leadership effectiveness, there are no overall gender differences that can explain or justify the low number of women in STEM. But yet, we still tend to have an automatic stereotypes that associates STI more with men than with women. How do we measure implicit associations How do we measure these persistent implicit associations? Over the past two decades, researchers have created and validated measures we can use to quantify these implicit associations that underlie our reflexive use of stereotypes. Implicit Association Test We can do this with something called the implicit association test. Implicit associations are cognitive links between concepts that co-vary. Is clouds, you think rain because your reflexive system has learned to link the two together. And to the degree that there are still more men and women engineering, we can expect to see the same thing for a link between engineering and male. These implicit associations are distinct from our explicit intentions. So It doesn't matter if we want or intend to associate engineering more with			That is, across 386 different effects, men and women are much more similar than they are different.
meaning any traits favouring women and traits favouring men cannot just "cancel" each other out. This varies based on the trait one is looking at, but the degree of overlap is striking. On relevant measures like math ability and leadership effectiveness, there are no overall gender differences that can explain or justify the low number of women in STEM. But yet, we still tend to have an automatic stereotypes that associates STI more with men than with women. How do we measure implicit associations How do we measure these persistent implicit associations? Over the past two decades, researchers have created and validated measures we can use to quantify these implicit associations that underlie our reflexive use of stereotypes. From break to this slide = 5 mins Implicit Association Test We can do this with something called the implicit association test. Implicit associations are cognitive links between concepts that co-vary. I sclouds, you think rain because your reflexive system has learned to link the two together. And to the degree that there are still more men and women engineering, we can expect to see the same thing for a link between engineering and male. These implicit associations are distinct from our explicit intentions. So It doesn't matter if we want or intend to associate engineering more with			
Striking. On relevant measures like math ability and leadership effectiveness, there are no overall gender differences that can explain or justify the low number of women in STEM. But yet, we still tend to have an automatic stereotypes that associates STI more with men than with women. How do we measure implicit associations How do we measure these persistent implicit associations? Over the past two decades, researchers have created and validated measures we can use to quantify these implicit associations that underlie our reflexive use of stereotypes. Implicit Association Test We can do this with something called the implicit association test. Implicit associations are cognitive links between concepts that co-vary. Is clouds, you think rain because your reflexive system has learned to link the two together. And to the degree that there are still more men and women engineering, we can expect to see the same thing for a link between engineering and male. These implicit associations are distinct from our explicit intentions. So It doesn't matter if we want or intend to associate engineering more with			Importantly, this analysis averages the absolute values of the differences, meaning any traits favouring women and traits favouring men cannot just "cancel" each other out.
are no overall gender differences that can explain or justify the low number of women in STEM. But yet, we still tend to have an automatic stereotypes that associates ST more with men than with women. 33. How do we measure implicit associations How do we measure these persistent implicit associations? Over the past two decades, researchers have created and validated measures we can use to quantify these implicit associations that underlie our reflexive use of stereotypes. From break to this slide = 5 mins Implicit Association Test We can do this with something called the implicit association test. Implicit associations are cognitive links between concepts that co-vary. I sclouds, you think rain because your reflexive system has learned to link the two together. And to the degree that there are still more men and women engineering, we can expect to see the same thing for a link between engineering and male. These implicit associations are distinct from our explicit intentions. So It doesn't matter if we want or intend to associate engineering more with			This varies based on the trait one is looking at, but the degree of overlap is striking.
more with men than with women. How do we measure implicit associations How do we measure these persistent implicit associations? Over the past two decades, researchers have created and validated measures we can use to quantify these implicit associations that underlie our reflexive use of stereotypes. Implicit Association Test We can do this with something called the implicit association test. Implicit associations are cognitive links between concepts that co-vary. Is clouds, you think rain because your reflexive system has learned to link the two together. And to the degree that there are still more men and women engineering, we can expect to see the same thing for a link between engineering and male. These implicit associations are distinct from our explicit intentions. So It doesn't matter if we want or intend to associate engineering more with			On relevant measures like math ability and leadership effectiveness, there are no overall gender differences that can explain or justify the low numbers of women in STEM.
How do we measure these persistent implicit associations? Over the past two decades, researchers have created and validated measures we can use to quantify these implicit associations that underlie our reflexive use of stereotypes. From break to this slide = 5 mins Implicit Association Test We can do this with something called the implicit association test. Implicit associations are cognitive links between concepts that co-vary. Is clouds, you think rain because your reflexive system has learned to link the two together. And to the degree that there are still more men and women engineering, we can expect to see the same thing for a link between engineering and male. These implicit associations are distinct from our explicit intentions. So It doesn't matter if we want or intend to associate engineering more with			But yet, we still tend to have an automatic stereotypes that associates STEM more with men than with women.
How do we measure these persistent implicit associations? Over the past two decades, researchers have created and validated measures we can use to quantify these implicit associations that underlie our reflexive use of stereotypes. From break to this slide = 5 mins Implicit Association Test We can do this with something called the implicit association test. Implicit associations are cognitive links between concepts that co-vary. Is clouds, you think rain because your reflexive system has learned to link the two together. And to the degree that there are still more men and women engineering, we can expect to see the same thing for a link between engineering and male. These implicit associations are distinct from our explicit intentions. So It doesn't matter if we want or intend to associate engineering more with	33.		How do we measure implicit associations
measures we can use to quantify these implicit associations that underlie our reflexive use of stereotypes. 34. From break to this slide = 5 mins Implicit Association Test We can do this with something called the implicit association test. Implicit associations are cognitive links between concepts that co-vary. Is clouds, you think rain because your reflexive system has learned to link the two together. And to the degree that there are still more men and women engineering, we can expect to see the same thing for a link between engineering and male. These implicit associations are distinct from our explicit intentions. So It doesn't matter if we want or intend to associate engineering more with			•
measures we can use to quantify these implicit associations that underlie our reflexive use of stereotypes. 34. From break to this slide = 5 mins Implicit Association Test We can do this with something called the implicit association test. Implicit associations are cognitive links between concepts that co-vary. Is clouds, you think rain because your reflexive system has learned to link the two together. And to the degree that there are still more men and women engineering, we can expect to see the same thing for a link between engineering and male. These implicit associations are distinct from our explicit intentions. So It doesn't matter if we want or intend to associate engineering more with			Over the past two decades, researchers have created and validated
our reflexive use of stereotypes. 34. From break to this slide = 5 mins Side = 5 mins These implicit associations are distinct from our explicit intentions. So It doesn't matter if we want or intend to associate engineering more with			·
From break to this slide = 5 mins Implicit Association Test We can do this with something called the implicit association test. Implicit associations are cognitive links between concepts that co-vary. Is clouds, you think rain because your reflexive system has learned to link the two together. And to the degree that there are still more men and women engineering, we can expect to see the same thing for a link between engineering and male. These implicit associations are distinct from our explicit intentions. So It doesn't matter if we want or intend to associate engineering more with			· · · · · · · · · · · · · · · · · · ·
break to this slide = 5 mins We can do this with something called the implicit association test. Implicit associations are cognitive links between concepts that co-vary. Is clouds, you think rain because your reflexive system has learned to link the two together. And to the degree that there are still more men and women engineering, we can expect to see the same thing for a link between engineering and male. These implicit associations are distinct from our explicit intentions. So It doesn't matter if we want or intend to associate engineering more with	34.	From	
to this slide = 5 mins Implicit associations are cognitive links between concepts that co-vary. Is clouds, you think rain because your reflexive system has learned to link the two together. And to the degree that there are still more men and women engineering, we can expect to see the same thing for a link between engineering and male. These implicit associations are distinct from our explicit intentions. So It doesn't matter if we want or intend to associate engineering more with		break	•
clouds, you think rain because your reflexive system has learned to link the two together. And to the degree that there are still more men and women engineering, we can expect to see the same thing for a link between engineering and male. These implicit associations are distinct from our explicit intentions. So It doesn't matter if we want or intend to associate engineering more with		to this	· ·
doesn't matter if we want or intend to associate engineering more with		slide =	
worneri, our renexive system simply finds it flurder to make this connection			'
The most recent meta-analysis has validated this measure on over 20 mil participants.			The most recent meta-analysis has validated this measure on over 20 million participants.
We can demonstrate what these associations look and feel like in an interactive task. You will need your hands free to do this task.			
Facilitator notes:			Facilitator notes:

	Tolight on the engineering lights do the degree takes as a Factor to act to the
	[click on the engineering link to do the demo; takes me 5 min to get to the IAT]
	Source for 20 million participants claim: "Since its founding in 1998, more
	than 20 million people have completed studies at the Project Implicit
	websites." https://implicit.harvard.edu/implicit/blog.html
35.	Implicit associations ≠ Explicit motivation
	Most people find it easier and are faster to categorize engineering words
	alongside male names than female names. This difference in speed can be
	quantified in more controlled tests as a measure of implicit associations.
	And when used for research, it would be randomly determined whether you
	do the male/STEM pairing first or the female/STEM pairing first to control for
	order effects.
	In samples of professional engineers and scientists (including data here at
	your organization), we have found that people find it significantly easier to pair engineering and science with male than with female.
	pair engineering and science with male than with female.
	Both people who identify as engineers or as scientists find it easier to pair
	science and engineering related terms with male — these are the positive
	lines above the zero point — than female. You see none of these bars go
	down in the direction indicating a consistent STEM = female association.
	Although this association is a bit stronger in men than women, women often show this implicit stereotype as well.
	Show this implicit stereotype as well.
	This stands in contrast to the fact that vast majority of women and men who
	tell us they are explicitly motivated to set their biases aside when working
	alongside others.
36.	Implicit science
	These associations are likely connected to what children see in their culture.
	In this cross-national study, this tendency to 'think science, think male' (along the y-axis here) was significantly stronger in countries that have fewer
	female science majors .
	So when you have fewer women going into engineering and science, these
	associations become even stronger, and because they become even
	stronger, they're likely to make it that much harder for women to get into
27	science, creating a vicious circle.
37.	Other examples of implicit associations Although we've been focused on implicit associations related to gender, this
	same type of task is often used to measure other types of implicit attitudes.
	Same type of task is often used to measure other types of implicit attitudes.
	Here you can see that, on average, people associate concepts of science,
	math, and career more with male than with female names.

		When it comes to other groups, people also have relatively strong implicit associations between their concepts of being Black, being old, or being gay with their concept of what is bad.
38.		Implicit bias = When I use the term implicit bias, what I'm talking about is what occurs when our implicit associations, that engineering/science equals male, can leak out and lead to unequal treatment. Again, this does not need to result from conscious intentions, but can come
		from unintentional reflexive thinking that can still be very harmful.
39.	3.5 min from IAT demo to start of video	What might implicit bias look like Now that I've talked a little bit about how we have these implicit biases and how they can be measured, I want to show you some examples of what these can look like in kind of a funny way. This is a video produced by the consulting company McKinsey. It shows what things would look like if the roles were reversed and we'd actually grown up in a culture where men are the ones who are associated with these
		stereotypes rather than women. < <pl>play embedded video>></pl>
		This video highlights what these biases might feel like by flipping the script that we're used to and imagining a world where men's and women's roles have been swapped. Out of curiosity, how many people in this room have heard things like this said to women? << Pause>>
		So, you can see just from looking around the room, that these kind of subtle implicit gender biases are quite common.
		Facilitator notes: McKinsey Gender-Swap Video. Still image animated to exit, revealing "play" link for video. Video embedded but also available online
		Could also potentially embed as online video <iframe allow="autoplay; encrypted-media" allowfullscreen="" frameborder="0" height="315" src="https://www.youtube.com/embed/JFW2cfzevio?rel=0" width="560"></iframe>
		Or embed downloaded video into powerpoint (likely best for workshops with unknown internet access)
		[3.5min from IAT demo to start of video]
40.		Implicit biases in how women are perceived But let's look at a few of the ways that these biases can and do affect women in the real world. In one famous study, scientists were sent applications for a lab manager job.
		They each got the same applications, but sometimes the name on the application was John and sometimes it was Jennifer. These objectively

taking into account objective qualifications of the applicants. And consistent with the idea that all of us, can learn these culturally ingraine stereotypes, both men and women show these implicit gender biases. 41.	44.	Women and men mostly agree about what is – or it not - biased In fact, when the RISE team gave about 1000 women and men these scenarios, they mostly agreed about what is or isn't bias.
Other research has shown that letters of recommendation written for male applicants more often include glowing adjective and superlatives, even after taking into account objective qualifications of the applicants. And consistent with the idea that all of us, can learn these culturally ingraine stereotypes, both men and women show these implicit gender biases. Men and women higher in implicit bias socialize less with their female teammates In Project RISE research, they've shown that men and women with higher implicit biases seem to socialize less with their female teammates. In other words, men and women who have a stronger STEM = male implicit association, measured with the implicit association test, also report that the spend less time socializing with their female teammates. You can see how these biases might lead women in male-dominated workplaces to feel left out of informal networks at work. Learning to recognize gender bias Now that you have had some time learn about implicit biases and how they are distinct from conscious intentions and stereotypes, we are going to spend some time considering some more specific examples to help us better recognize gender bias and why it matters. Is this situation an example of gender bias? First, let's consider two different examples. First, let's consider two different examples.		 degree of gender bias on Jill's part? > How many people think that this situation reflects some degree of bias from Mike? I've shown these two scenarios to underscore two points: first, women can just as easily fall prey to showing these biases. So as women, we aren't off the hook. Second, not every negative outcome that women receive is due to bias. Sometimes a woman really isn't qualified for a promotion. The trick is to become more accurate in recognizing when bias might
Other research has shown that letters of recommendation written for male applicants more often include glowing adjective and superlatives, even after taking into account objective qualifications of the applicants. And consistent with the idea that all of us, can learn these culturally ingraine stereotypes, both men and women show these implicit gender biases. 41. Men and women higher in implicit bias socialize less with their female teammates In Project RISE research, they've shown that men and women with higher implicit biases seem to socialize less with their female teammates. In other words, men and women who have a stronger STEM = male implicit association, measured with the implicit association test, also report that the spend less time socializing with their female teammates. You can see how these biases might lead women in male-dominated workplaces to feel left out of informal networks at work. 42. Learning to recognize gender bias Now that you have had some time learn about implicit biases and how they are distinct from conscious intentions and stereotypes, we are going to spend some time considering some more specific examples to help us better recognize gender bias and why it matters.	43.	First, let's consider two different examples. < <read 1="" on="" scenario="" slide="" the="">></read>
Other research has shown that letters of recommendation written for male applicants more often include glowing adjective and superlatives, even after taking into account objective qualifications of the applicants. And consistent with the idea that all of us, can learn these culturally ingraine stereotypes, both men and women show these implicit gender biases. Men and women higher in implicit bias socialize less with their female teammates In Project RISE research, they've shown that men and women with higher implicit biases seem to socialize less with their female teammates. In other words, men and women who have a stronger STEM = male implicit association, measured with the implicit association test, also report that the spend less time socializing with their female teammates. You can see how these biases might lead women in male-dominated	42.	Now that you have had some time learn about implicit biases and how they are distinct from conscious intentions and stereotypes, we are going to spend some time considering some more specific examples to help us
I name was male rather than temale	41.	Other research has shown that letters of recommendation written for male applicants more often include glowing adjective and superlatives, even after taking into account objective qualifications of the applicants. And consistent with the idea that all of us, can learn these culturally ingrained stereotypes, both men and women show these implicit gender biases. Men and women higher in implicit bias socialize less with their female teammates In Project RISE research, they've shown that men and women with higher implicit biases seem to socialize less with their female teammates. In other words, men and women who have a stronger STEM = male implicit association, measured with the implicit association test, also report that they spend less time socializing with their female teammates. You can see how these biases might lead women in male-dominated

		However, you'll see that women, in orange, are the ones who actually see a greater difference between these two. Maybe because women have had more time to think about what bias is and what it isn't. Having an accurate idea of what bias is often means taking some time to think through these situations using that more reflective system.		
45.	4 min	Choose a card & discuss		
43.	to get from video to			
	start of discuss ion 10 mins	[HQP] will be coming around with a couple of cards for each table. One person should moderate the discussion but choosing which card to start with and reading it aloud to the group.		
	for discuss ion	Then at your table, spend 8 minutes talking about role implicit bias could be playing in the scenario and what kind of effect this kind of bias could have on women.		
		It's fine if you only discuss one, but if you have more time, you can discuss the second scenario too.		
		< <hqp 10="" 2="" a="" and="" as="" cards="" choose="" discuss="" each="" gives="" group.="" have="" it="" minutes="" one="" table="" they="" to="">></hqp>		
		 <after is="" time="" up="">></after> ask for a few examples of the negative effects that these biases can have from the scenarios they discussed [4 min to get from video to starting this discussion]. Popcorn examples of negative effect of bias from these scenarios 		
46.		We all thrive when we feel a sense of it As you may have already guessed, implicit biases don't just bias the way people are perceived. They also can have an effect on people's abilities to feel a sense of fit or inclusion within their organization.		
		For anyone, we thrive in those places where we feel a sense of fit. We want to work in a field that fits who we are, supports our goals, and where our coworkers respect us.		
		The automatic tendency to associate STEM more with men than with women can potentially disrupt each of these types of fit.		
47.		The difference between diversity and inclusion This insight can help us highlight the distinction between diversity and inclusion. Even if we have no formal biases and doors are equally open to men and women, automatic associations that make men the default can make women feel that they don't belong. This is an important distinction between formal biases and subtle biases.		

	Formal biases involve true differential and unfair treatment where doors open to men are closed to women.
	Subtle gender bias does not involve formal discrimination, but can still produce disparate access for men and women communicating that men are the default. It can be signaled in the physical environment, the policies that are in place, and in subtle treatment from others.
	Let's connect this distinction to the concepts of diversity and inclusion. As Verna Myers, an educator based in the States, said, "diversity is being invited to the party; inclusion is being asked to dance."
	So diversity means you're in the room, it means you got hired.
	Inclusion means that people are asking you out to lunch, they're inviting you to consult on certain questions.
	We know from other research that teams function best when there are diverse people in the room, but often only if their voices are heard and respected.
48.	Social identity threat Now these subtle reminders of gender and gender stereotypes can trigger concerns that one might be evaluated on the basis of the devalued identity, this is called social identity threat.
	Research suggests that situations that remind people of their gender, or their race, or their age, or their sexual orientation, of some kind of devalued identity, especially if there's a negative stereotype—a performance stereotype—attached to it, can actually lead to poor performance.
	For example, women made highly aware of gender stereotypes that women aren't supposed to be as good at math sometimes perform more poorly on a difficult math test. And importantly, if these stereotypes aren't brought to mind, women often perform just as just as well as men.
	So, what this means is that social identity threat can actually hide or mask a person's true ability. Everyone's performance can be enhanced if we're working in more inclusive psychologically safe settings.
49.	The paradox of meritocracy In discussions about efforts toward increasing the representation of some underrepresented group, people will sometimes ask, "but shouldn't we just hire the best person?" Let's talk about three answers to this question:
	First, Efforts to increase representation are not at odds with merit if biases exist. Because social identity threat can mask true ability, those who experience these threats the most might have greater potential than so-called objective indicators might suggest.

Second, evaluations are not completely objective. People are naturally attracted to candidates who are similar to themselves. And we do an extraordinarily good job of justifying that opinion. For example, we might selectively weight aspects of the application that support the person they want to hire convincing even themselves that they have made an entirely rational opinion.

Perhaps most importantly, people trying to be merit-based can end up being biased. This is called the **paradox of meritocracy**.

The paradox of meritocracy part 2

50.

In this study, managers were asked to review a set of matched profiles with equally strong qualifications and assign yearly bonuses.

In one condition, people were just given information about the value of having regular performance evaluations. When people were given this basic description, there was no difference in the bonuses they offered to the male and the female candidate.

In the other condition, the instructions emphasized that these evaluations were a way to reward those who show the best performance. Even though they were rating a male and female employee who were matched on objective indicators, when the idea of rewarding based on merit was emphasized, they recommended a significantly larger financial bonus to the man than to the woman.

Sometimes an exclusive focus on meritocracy actually maximizes the chance of bias, which suggests that our idea of excellence brings to mind a male default.

Often what may be organizationally accepted as "the best" performance or skills is often the "male default" that is socially accepted.

Facilitator notes:

More information on the study: Castill & Benard (2010), 101 Business school students participants

Performance Evaluation:

- All employees are to be evaluated annually
- Performance evaluations include quantitative and qualitative information
- Performance evaluations are part of official personnel file
- Performance evaluations are discussed with employee

Meritocratic Reward

- All employees are to be rewarded fairly
- Raises are determined entirely on performance
- Bonuses only for those whose performance shows they deserve it
- Reward all employees equitably every year

51. Benefits of working in a gender-inclusive culture

	A final point to make before we close this session is to see from research on the value of working for an organization inclusive culture. As part of their research, the Project R STEM professionals to rate the degree to which their continuities policies and practices in place. In those compare report a more gender inclusive culture, women experience identity threat. They are simply less aware of their gender basis.	in with a gender ISE team asked mpany has gender nies where people ce much less social
	Furthermore, both men and women report higher commorganization to the degree that the culture is more supplinclusion. Although inclusion can particularly create a menvironment for women, it also seen as benefiting every	ortive of gender ore welcoming
52.	Summary To sum up, diversity on our teams can foster innovation biases that I've talked about can get in the way.	. But the implicit
	Now these biases are distinct from out conscious motiv still affect how women are perceived.	ations, but they can
	They can also undermine women's own feelings of fit, w determinants of workplace engagement.	hich are important
	I'll pause here briefly for questions, and then we're going we can do to work together on this issue.	to talk about what
53.	Time for a break	