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**A sense of belonging
in the chemical sciences**

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I still remember my chemistry teacher inspiring me with her leadership. She had a PhD in chemistry and made me feel that I could find my place in the chemical sciences, and aspire to become a leader.

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Belonging in the Chemical Sciences

We are living in a time of rapid change. We are seeing the rise of artificial intelligence, the development of new materials, and the impact of climate change. These changes are creating new opportunities and challenges for the chemical sciences.

The Royal Society of Chemistry has a long history of excellence in research and education. We are proud to be part of a community that is committed to the highest standards of scientific achievement.

What we need now is a new generation of leaders who can inspire and motivate others to achieve their full potential. We need people who are passionate about their work and who are committed to the highest standards of scientific excellence.

We need people who are not just interested in science, but who are also interested in the wider world. We need people who can communicate their ideas effectively and who can work with others from different backgrounds and cultures. We need people who are committed to the highest standards of scientific excellence and who are also committed to the highest standards of ethical behaviour.

We have a great future ahead of us. We have the talent and the resources to make a real difference to the world. We have the opportunity to create new jobs and to improve the lives of people everywhere. We have the chance to make a real difference to the world.

Our future is bright. Our future is full of opportunity. Our future is full of hope. Our future is full of possibility. Our future is full of potential. Our future is full of promise. Our future is full of hope. Our future is full of possibility. Our future is full of potential. Our future is full of promise.

Dr Helen Pain CChem FRSC Chief Executive, Royal Society of Chemistry

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But it's not just about the chemistry. It's about the people. The chemists who work in the chemical industry are often the ones who are most affected by the changes. They are the ones who are most likely to be in the front line of the changes. They are the ones who are most likely to be affected by the changes. They are the ones who are most likely to be affected by the changes.

The *Chemical Industry Skills Survey 2019* found that the chemical industry is facing a skills gap. The industry is facing a skills gap. The industry is facing a skills gap. The industry is facing a skills gap. The industry is facing a skills gap.

Belonging matters to chemists Employees who feel they belong to their organization are more likely to be engaged and productive. Employees who feel they belong to their organization are more likely to be engaged and productive. Employees who feel they belong to their organization are more likely to be engaged and productive.

Belonging at work impacts chemists' well-being Chemists who feel they belong to their organization are more likely to experience better mental and physical health. Chemists who feel they belong to their organization are more likely to experience better mental and physical health. Chemists who feel they belong to their organization are more likely to experience better mental and physical health.

When chemists feel they belong, they do better work Chemists who feel they belong to their organization are more likely to perform better on the job. Chemists who feel they belong to their organization are more likely to perform better on the job. Chemists who feel they belong to their organization are more likely to perform better on the job.

Questions of belonging, and experiences of not-belonging, are particularly important for people from under-represented groups in the chemical sciences

Chemists from under-represented groups, such as women, people of color, and the LGBTQ+ community, often face challenges in the workplace. Chemists from under-represented groups, such as women, people of color, and the LGBTQ+ community, often face challenges in the workplace. Chemists from under-represented groups, such as women, people of color, and the LGBTQ+ community, often face challenges in the workplace.

The five enablers of belonging

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We can all take action to help everybody feel like they belong in the chemical sciences. We have to take the fact that we are all different into account

Our three commitments

1

We will ensure that everyone has the opportunity to be a part of the team

2

We will ensure that everyone has the opportunity to be a part of the team



We will ensure that everyone has the opportunity to be a part of the team

Belonging matters. It affects chemists' ability to share ideas, try new things, collaborate and ultimately to enjoy their work and stay in the profession.

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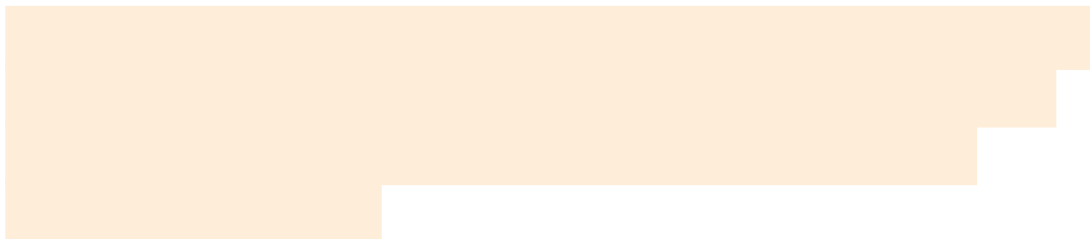
A sense of belonging leads to better science outcomes Chemists and the academic environment create the feeling of belonging. The sense of belonging is judged and feedback has the effect of adding to the academic environment. The academic environment affects the academic performance.

“When I felt I belonged, I was very productive, I collaborated a lot, I really enjoyed it.”

“When you don’t feel you belong you feel you’re not really doing good science, it’s not amounting to anything, you’re not hitting the bar.”

Conversely, not belonging negatively impacts science outcomes Chemists find that feeling the belonging is related to the idea of belonging. The fact that the academic environment affects the academic performance.

“I qualify what I say. I say, ‘maybe this is a bit naïve of me’ or ‘sorry if I’ve misunderstood’, so it’s not perceived as offensive. I feel I’d be judged if I didn’t.”



Not belonging in the workplace

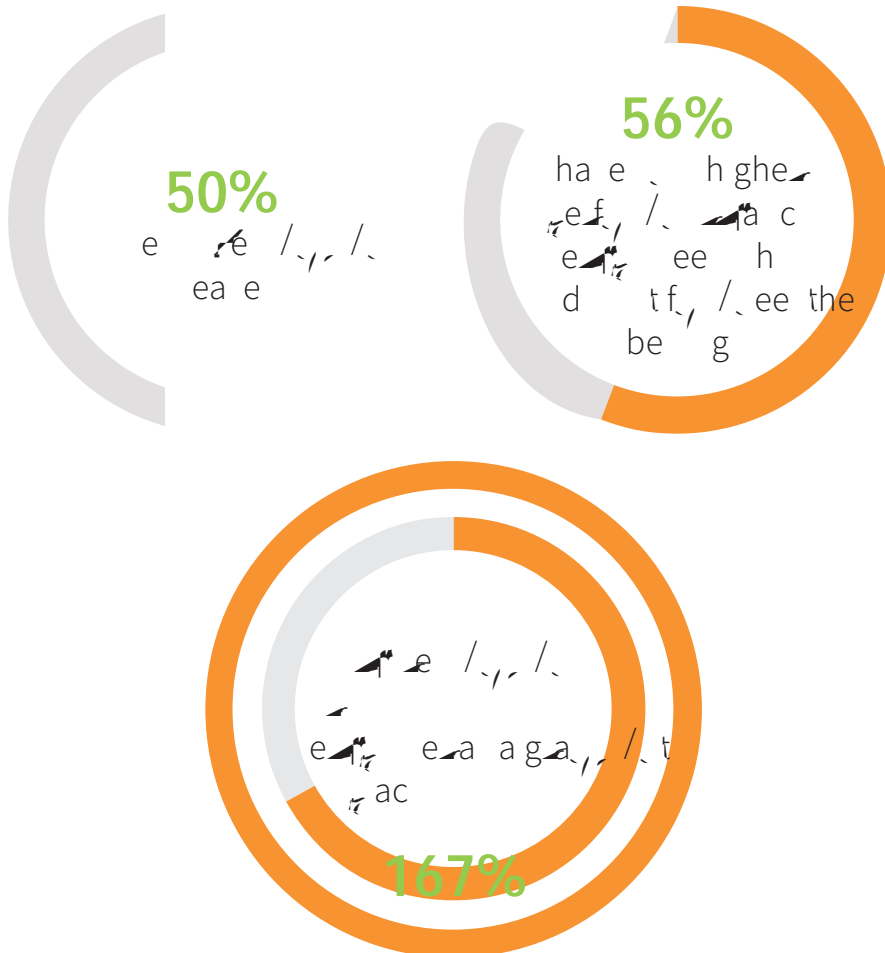
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In the workplace, employees who feel a sf belonging ar68 06e:





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1. Being told that you don't belong directly or indirectly.

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2. Being the only one with a particular lived experience or identity.

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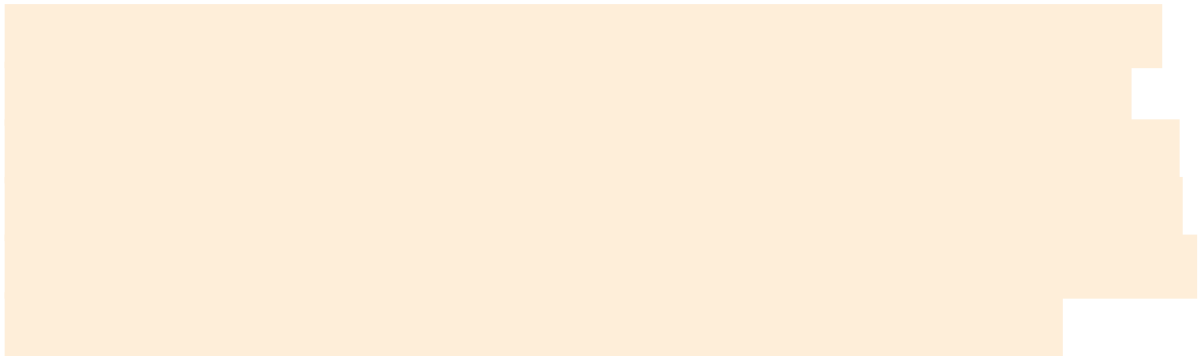
“The higher up you go, the less women there are, and the more women feel like they don’t belong.”

“There has not been a good role model throughout my entire career in the chemical sciences with the same ethnicity as me.”

“When I struggled with mental health, I didn’t feel I belonged, as I couldn’t see others like me suffering in the same way.”

3. Being excluded and 'othered' by peoples' assumptions, stereotypes and biases

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The insights from the chemists involved in this study suggest there are five enablers of belonging in the chemical sciences. These are:





1. Content

Majority of the teachers are content with the way they are doing things. They are giving their feedback and are happy that they are doing a good job. They are also content with the way they are doing things. They are also content with the way they are doing things. They are also content with the way they are doing things.

“Within that group of other D/deaf scientists, I feel I do well. We have a shared language, and we can talk out our passion for science.”

2. Content

They are also content with the way they are doing things. They are also content with the way they are doing things. They are also content with the way they are doing things. They are also content with the way they are doing things. They are also content with the way they are doing things.

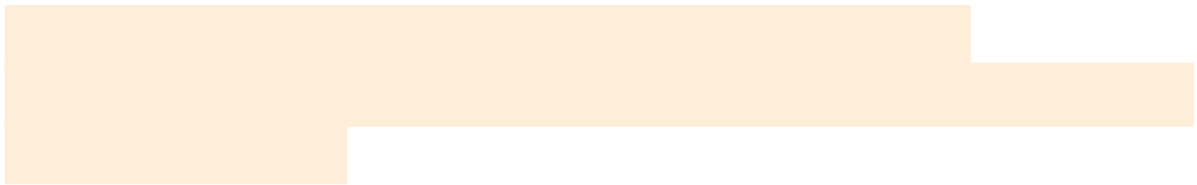
“I had a supportive supervisor, who treated me like my ideas were valued. I’d never had that before. That made me want to continue in academia, where other experiences had dissuaded me.”

made me want to continue in academia, where other experiences had dissuaded me.”

3. Dicit

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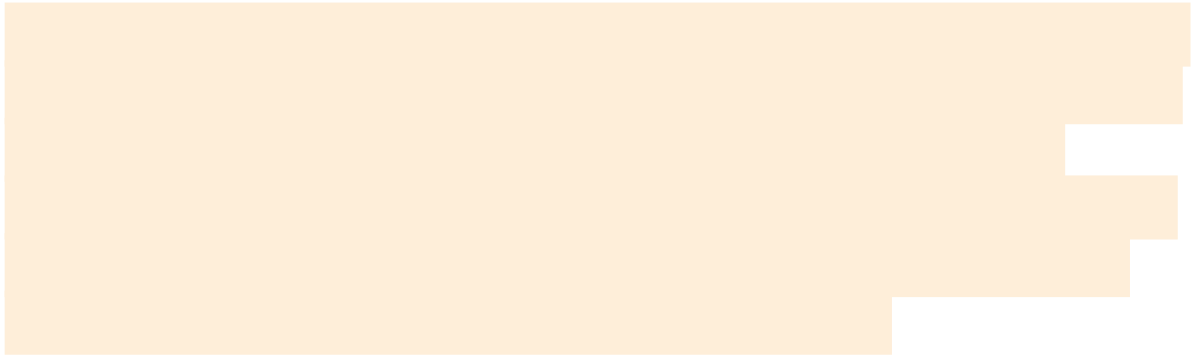
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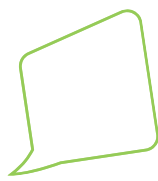
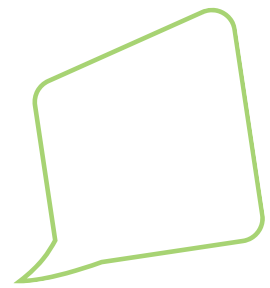
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Actions for organisations

Increase diversity in the chemical sciences community The first action is to create a diverse range of roles and opportunities for people from different backgrounds.

Incorporate belonging into inclusion and diversity strategies The first step is to ensure that belonging is a core part of the organisation's strategy and is embedded in all its activities.

Create opportunities for people to talk about their experiences It is important to create safe spaces where people can share their experiences and discuss any challenges they are facing.

Make networking more inclusive The first step is to ensure that networking opportunities are available to all people, regardless of their background or position within the organisation.

Increase accountability for those in position of authority It is important to ensure that those in positions of authority are held accountable for their actions and the impact of those actions on the organisation's diversity and inclusion goals.

“It’s about making people feel like they are part of the bigger group.”

“Get people talking about [race], get White people talking about it. People don’t want to talk about it in case they get it wrong, in case they get into trouble. But if you don’t talk about it how are you going to find answers?”

“Are the people in the team happy, do they feel accepted, like they belong, genuinely, not in terms of being a square peg in a round hole? Holding leaders to account for their team’s emotional state.”

Building your own sense of belonging

Seek out and nurture supportive relationships. This can be done by reaching out to colleagues and students. It's important to have a supportive network that can help you navigate challenges. Teaching can be a rewarding experience, but it can also be a challenging one. It's important to have a supportive network that can help you navigate challenges.

“[When] I moved to chemistry I felt like an outsider. I felt like I had to justify myself for being there. But I started feeling a sense of belonging when I began teaching, became more involved with the RSC.”

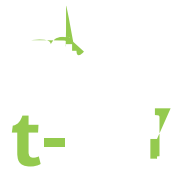
Use assertiveness tools to increase visibility and confidence. This can be done by reaching out to colleagues and students. It's important to have a supportive network that can help you navigate challenges. Teaching can be a rewarding experience, but it can also be a challenging one. It's important to have a supportive network that can help you navigate challenges.

“At this point I feel like I belong but it's through willpower that I've convinced myself I'm right to be here. I've received messages that I don't belong, either overt or unconscious. So it's been about overcoming that messaging for me.”

Take self-care seriously. This can be done by reaching out to colleagues and students. It's important to have a supportive network that can help you navigate challenges. Teaching can be a rewarding experience, but it can also be a challenging one. It's important to have a supportive network that can help you navigate challenges.

“With my team I know that my ideas will be valued. But it was a different situation when I was doing my PhD and it led to a mental health crisis for me. I chose to stay but I know people who have left because of not-belonging.”

Reframing not belonging. This can be done by reaching out to colleagues and students. It's important to have a supportive network that can help you navigate challenges. Teaching can be a rewarding experience, but it can also be a challenging one. It's important to have a supportive network that can help you navigate challenges.



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Environments to increase inclusion and diversity must also focus on belonging.

Individuals belonging to groups are more able to flourish and therefore to contribute.

All of the chemists who took part in this study shared experiences of belonging in the chemical sciences, and of not-belonging.

Belonging and not belonging are a feeling, but the actual state of affairs is more complex. It is a feeling, and it is a fact that each of us has experienced it, and that each of us has experienced it differently.

Questions of belonging, and experiences of not-belonging, are especially relevant in the lives and careers of groups under-represented in the chemical sciences community.

The time for belonging has been the focus of research, and the time for belonging has been the focus of research. The time for belonging has been the focus of research, and the time for belonging has been the focus of research.

Building belonging requires that individuals and organisations pay attention to all five enablers of belonging: connection, respect, diversity, inclusion and an intention to belong.

Many of the gaps that are seen in the current research are due to the fact that the current research is not taking into account the five enablers of belonging: connection, respect, diversity, inclusion and an intention to belong.

Some part of belonging is about having the intention to belong, but individuals cannot achieve a sense of belonging by themselves.

Individuals cannot achieve a sense of belonging by themselves, but they can achieve a sense of belonging by themselves if they have the intention to belong.

It is important that the current research is not taking into account the five enablers of belonging: connection, respect, diversity, inclusion and an intention to belong.

A: Measuring belonging

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B: Methodology

A participant that attended the chemistry department at the University of
the Royal Society of Chemistry and the Department of Chemistry at each of the
three universities was selected for the study.

We had five groups of participants, each of which was assigned to a different
group of participants.

1. PhD students

