



INWED #engineeringheroes 2021

Sustainability heroes

Meet our sustainability heroes who are researching and developing ways to ensure that businesses run more sustainably and that there will be enough resources – food, water, power – for future generations.

Not all the resources we need on Earth will last forever and this is why we all need to make sure we are making the best use of the resources we have and also researching ways to use alternative resources. This could mean installing solar panels on our homes to use power from the sun rather than electricity or gas, it could mean reducing our water usage by setting a timer when we have a shower, it could be using other reusable materials rather than plastics, which can hurt our ecosystem, or it could be investing in the skills of workers or new technologies that will ensure businesses are less damaging to the environment and working more efficiently.

You can find out more about all our heroes. Ask your parent, carer or teacher to visit our engineering heroes homepage at: www.cranfield.ac.uk/INWED



Dr MariCarmen Alamar

Job title: I research new ways to reduce food loss and waste.

Superpower: Postharvest biology (what happens in food after it's harvested).

STEM strengths: Designing experiments and analysing data.

Teamwork skills:

- 1 Working together.
- 2 Solving problems.
- 3 Being positive.

Challenge/weakness:

English not being my native language and understanding and remembering new things.



Dr Adriana Encinas-Oropesa

Job title: I investigate ways to recover and reuse materials, extending their useful life and contributing to sustainability.

Superpower: To transform materials so that they do not contaminate our land and seas.

STEM strengths: Solving problems with independent and design thinking, science, creativity and critical analysis.

Teamwork skills:

- 1 Solving problems.
- 2 Planning and organising.
- 3 Listening and communication.

Challenge/weakness:

Sometimes it takes me a lot of time to write, for example, a report or a paper.



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Dr Jack Hannam

Job title: I research how soil is crucial for a healthy planet and life on earth.

Superpower: Environmental science.

STEM strengths: Recognising patterns and understanding why a change in one thing can cause a change in another.

Teamwork skills:

- 1 Being a good communicator.
- 2 Recognising everyone's contributions.
- 3 Supporting others.

Challenge/weakness:

Not always paying attention to detail, also my rheumatoid arthritis which affects my joints can make it difficult to be mobile.



Professor Ana Soares

Job title: I research the superpowers of bacteria (especially when converting waste into useful things).

Superpower: Combining engineering and microbiology.

STEM strengths: Maths, spotting details that link together and microbiology.

Teamwork skills:

- 1 Being a good communicator.
- 2 Supporting others.
- 3 Listening.

Challenge/weakness:

Time keeping, I work better under pressure, but this sometimes means things are late or rushed.



Dr Rosina Watson

Job title: I teach managers how to run their businesses more sustainably.

Superpower: Being good with numbers but also at telling stories.

STEM strengths: Maths and finance.

Teamwork skills:

- 1 Listening.
- 2 Learning from others to tackle problems differently.
- 3 Being enthusiastic.

Challenge/weakness:

Sometimes I try to do too many things at once. I can be impatient when people don't understand things as quickly as I do.

