

Science Week Profile: Charlie Coakley

Imbedding the Irish Water Sustainability Strategy



Charlie Coakley is an Environmental Scientist who leads the Sustainability Policy Team in Irish Water which is responsible for the development and embedding sustainability related policies and strategies aligned with the UN Sustainable Development Goals.

Where are you from?

I am a proud Offaly man, currently living in beautiful County Tipperary.

What do you do with Irish Water?

Irish Water is the national public water services utility, responsible for public water and wastewater services throughout Ireland. I lead a dedicated Sustainability Team in Asset Management, developing and integrating strategies to support sustainability aligned with the UN Sustainability Goals, making a real contribution to National Climate Action policy. Irish Water's sustainability focus includes energy efficiency, climate change, circular economy, supply chain and environmental protection.

The definition of sustainability is meeting the needs of the present generation without compromising the ability of future generations to meet their needs. Sustainability is about doing more with less and with a social conscience thus balancing social, environmental and economic aspects. For example, improving energy efficiency reduces costs, which in turn lowers our carbon footprint and the associated climate change impacts on society and our planet.

We are currently working on embedding our Sustainability Strategy and developing a roadmap for Irish Water to be net zero carbon by 2040, 10 years ahead of Ireland's target of 2050. The consequences of climate change are far reaching, with significant impacts on water resources and infrastructure. We have a fundamental responsibility in finding effective solutions that ensure a sustainable, secure and reliable water service, whilst also safeguarding the environment now and for future generations. We are rising to the challenge of climate breakdown, helping meet national targets and become public body exemplars and leaders in sustainability.

How did you get here?

I completed an Environmental Science degree at University of Limerick (UL) in the 90's when the environmental agenda was just starting to gain traction. I started my career in the Agri-Food sector as

an Environmental Manager. The role developed over time, as society and business started to look beyond just purely environmental issues, to encompass all aspects of sustainability, and I was responsible for implementing and managing sustainability for sites across Ireland and UK. After 18 years in this role, I took a leap of faith and joined Irish Water 5 years ago. I love working with Irish Water as I feel we are delivering real impact and supporting national sustainability goals.

Why did you choose science as a career?

I had a great science teacher that ignited a passion for science in me. I've always had a love of outdoors and with both my parents being from farming backgrounds, they instilled a strong respect for nature.

What's your favourite thing about working as a scientist?

As an Environmental Scientist, you get the opportunity to work in a huge range of areas from energy, waste, circular economy and ecology to climate action. Within each of these areas you get the opportunity to work in the very technical right up to blue sky thinking, finding solutions that have a really positive impact.

Best part of your job with Irish Water?

Irish Water has a vital role in Irish society. To provide clean safe drinking water and take wastewater away and return it to the environment safely. Our role to protect the health and wellbeing of Irish people and support economic growth and do all of this in a way that is sustainable makes for a hugely challenging career.

It's a really exciting time to be working in the sustainability area, as it is no longer purely about environmental protection. As a company and country, we are on the cusp of transitioning to net zero carbon and climate neutrality. It is brilliant to be at the leading edge developing and integrating strategies that make a real difference in climate action and circular economy right across the country. The challenges facing our industry are huge and complex, how to reduce all our emissions to put us on a trajectory to net zero carbon. We cannot do this alone, and we are collaborating with people from all areas of the business and numerous external stakeholders. The talent, intelligence and passion of staff in Irish Water for sustainably delivering water services amazes me. It is fantastic to be working with such enthusiasm.

Your advice for anyone interested in a career in science?

People sometimes see a scientist as purely the 'mad scientist' working in a lab or as portrayed on The Big Bang Theory. A science degree is so much more, you get experience and skills in leadership, teamwork, analytical thinking, writing, creativity, thinking outside the box, skillsets that are useful in all walks-of- life. Science is about always learning and improving – if you enjoy thinking creatively, problem solving, have an innate sense of curiosity then a career in science is a good choice for you.

Who's your hero in the field of science and why?

There are so many heroes to choose from, Leonardo Da Vinci, Charles Darwin up to modern day scientists. In the recent history, three stand out in my mind. Rachel Carson, her book Silent Spring is arguably the most important environmental book of the 20th century, and catalysed modern day environmentalism. Gro Harlem Brundtland, known as the "mother" of sustainable development, who helped set the groundwork and definition of sustainability and guiding principles for sustainable development. Finally, the inimitable, David Attenborough and the work he has done and continues to do, bringing the natural world into our homes, his positive and hopeful call to action on climate change and for the defence of the natural world.

Outside of work, what do you enjoy doing?

Family is hugely important to me and I love having them all gather around for a big Sunday lunch to spend time together. For leisure activity and unwinding, I swim a couple of times a week, run when I can and enjoy Bikram yoga. I also have huge interest in gardening and I experiment with improving biodiversity, developing wildflower pollinator friendly areas, native woodland section and spending a lot of time in nature. My guilty pleasure is antique shopping which I easily justify as being more sustainable.

How can I be more sustainable with water?

There are so many ways to be sustainable with water with a small amount of planning. For example, using a full load in the dishwasher/washing machine, keeping the tap off whilst cleaning your teeth, having shorter showers, there is no need to flush every time you pee, just flush once or twice a day, are all things each of us can do easily.

Irish Water put a big focus on Think before You Flush programme, where we work with An Taisce to educate people on why pee, paper and poo are the only things that should go down the loo. Nothing else. Everything else should go in the bin. By ensuring we all do this, we can reduce sewer blockages, reduce risk of flooding to homes and businesses and reduce the risk of pollution in the environment harming wildlife, such as fish and birds and associated habitats.

There are great tips and advice on Irish Water's website; <https://www.water.ie/conservation/>

How can I be more sustainable?

The challenge of climate change can seem daunting and sometimes leads to an overwhelming feeling. The question is often asked what difference I can make, as I am only small in the scheme of a global crisis. There is so much more we can do that has a real impact and can really make a difference - it is the multiplier effect.

Transport - one big factor is your car. Prices are still relatively high for electric vehicles, but can you use public transport or walk/cycle, take fewer long haul flights. The COVID crisis has taught us that we can attend conferences and events remotely without jetting off. Eating plant based or vegetarian meals just once a week can save up to the equivalent of driving your car 1200 miles.

All our homes combined use more energy than industry. SEAI have grants to support solar panels, insulation and energy efficiency retrofits. The SEAI website also has some great tips for saving energy.