

2021/22



UCC

University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

ANNUAL SUSTAINABILITY REPORT



1. Sustainability Citizenship

Strategic Aim: To engage our student body, staff and wider community in becoming active citizens for sustainability

This academic year brought with it a particularly exciting development when in May 2022, UCC was successful in its bid to co-host (together with Queen's University Belfast) an All-Island Sustainable Development Solutions Network (SDSN). The international SDSN was established under the auspices of the United Nations to mobilize universities, research centres, civil society organizations, and other knowledge centres to translate the latest expertise in sustainable development into concrete action in support of the 2030 Agenda for Sustainable Development.

Local SDSN networks focus on providing support to the implementation of the SDGs, promoting high-quality education and research collaboration and promoting practical solutions Initiatives and pathways for sustainable development.



An All-Island network in support of the SDGs

SDSN Ireland is a North-South cooperative network focused on developing context-specific solutions and mobilising local action for the SDGs. Engaging universities, research centres, local authorities, NGOs, civil society organisations and policymakers, the Network will bring the latest research to bear on producing solutions for the SDGs and would seek to empower individuals and organisations to achieve impact through education and engagement. The Network will be officially launched in Spring 2023.

An SDSN Ireland manager will be employed at UCC to develop the network and oversee its activities and impacts.





The week began with the launch of an upcycled sculpture sign made from single-use plastics created by Reframe Plastic and UCC Enactus. The aim of this project was to draw attention to the current plastic pollution crisis and the work that has been done at UCC to tackle waste production. While we have taken great steps to reduce waste on our campus, we still have a long way to go.

Following the launch, the President's Picnic event took place in the ORB Garden. This was a roundtable meeting with UCC President John O'Halloran where students had the opportunity to discuss what sustainability initiatives they wanted to see implemented across the university.

Some other events held over the course of the week included the UCC Community Market, a Self Care is Climate Care workshop with Melanie O'Driscoll, an urban trail walking tour led by UCC head gardener Jack Murphy.

Green Week ran from March 7th -11th 2022. Over the course of this week, campuses from across the country came together to promote climate action and environmental justice. This year, the theme of Green Week was climate education. Green Week is a week of climate activism, and it is a great opportunity to highlight the sustainable initiatives and innovative projects being run by staff and students in the university.



Professor Hannah Daly delivered a thought provoking Green Zone talk 'Modelling Ireland's Decarbonisation Targets', which was open to all campuses taking part in the National Green Week. The Glucksman Gallery collaborated with UCC Enviro Soc on a great initiative that involved creating an interactive wall where people had the opportunity to voice their opinion on the ever-growing climate crisis. A series of online competitions were also run over Green Week where students had the opportunity to win a refurbished Samsung phone and MacBook Pro.

2. Teaching and Learning



**Strategic Aim: To engage our student body, staff and wider community in becoming active citizens for sustainability
To facilitate the development and empowerment of future leaders in sustainability through our teaching and learning activities**

In November 2021, UCC's SDG Toolkit was officially launched as part of the National Forum for Teaching and Learning's VIT&L week of events. The toolkit has received national and international attention and was featured as an example of best practice in the United Nations Academic Impact Newsletter in July 2022. Following the launch of the toolkit, some staff requested more in-depth resources on embedding the SDGs within their curricula.

In May 2022, Green Campus in collaboration with the Centre for the Integration of Teaching and Learning launched a "Learning and Teaching with the SDGs Digital Badge Course". The course development was also funded by the National Forum for Teaching and Learning and takes a "students as partners approach" with the aim of supporting teaching staff to create genuine and transformative experiences for students.

This course uses a stepwise approach to introduce teaching staff to the SDGs, help them identify links between their modules and the goals, and facilitate the integration of the SDGs into their curriculum. The course was designed by an interdisciplinary team made up of staff from CIRTL, UCC Research, UCC Green Campus, and CACSSS, and inter- and transdisciplinary approaches are key features of the Digital Badge and the SDGs themselves. This is a short, self-paced course that was designed to result in usable outputs while linking to key theory and policy.



ASHA WOODHOUSE
UCCSU
PRESIDENT



REBECCA DOOCEY
INTERNATIONAL
DEVELOPMENT STUDENT

'I think there is an appetite amongst young people now, our students, to learn about sustainable development'



EDUCATION FOR SUSTAINABLE DEVELOPMENT

*CO-CREATING COMMON AREAS
OF NEED AND CONCERN*



NATIONAL FORUM
FOR THE ENHANCEMENT OF TEACHING
AND LEARNING IN HIGHER EDUCATION



UCC GREEN CAMPUS

In November 2021, UCC Green Campus and Green Campus Ireland hosted two workshops for Green Campus registered institutions, with funding from the National Forum for Teaching and Learning. The workshops involved open discussions to identify existing obstacles to ESD and potential collaborative solutions. Both students and staff were invited to attend these sessions to facilitate open dialogue and meaningful peer-to-peer collaborations.

While the main challenges identified were related to lack of skills, knowledge and resources, the principal opportunities available to facilitate the creation of the ESD curriculum included:

- Developing comprehensive professional development training around sustainability, with an emphasis on peer-to-peer learning.
- Utilising the existing Green-Campus Network to facilitate the development of an inter-disciplinary ESD curriculum.
- Developing a standard for ESD across all further and third-level institutions.

The findings of this report can be regarded as a call to action. ESD must be amalgamated into the building blocks of our third-level education system and our approach to sustainability issues should strive to empower individuals to become proactive and avoid falling into the trap of climate doomism. The student voice is critical to the development of the curriculum for sustainable development. The report can be accessed on the UCC Green Campus website.

3. Research

Strategic Aim: To facilitate the development and empowerment of future leaders in sustainability through our research activities

In 2021/22 UCC Research Office undertook an extensive mapping project to measure the impact of UCC research on the SDGs. The project was in response to UCC 2022: Delivering a Connected University Action 2.1.2 to “Map our research onto the UN Sustainable Development Goals.” In late 2021, an action group with representation from across the university was formed, chaired by Dr Paul Bolger (ERI) and in January 2022 a Research Support Officer, Julie O’Donoghue was appointed.

In tandem with extensive internal consultations, a literature review and benchmarking exercise were undertaken to assess national and international best practice. It was agreed that adoption of a mixed quantitative and qualitative methodology would be used to ensure the most comprehensive mapping of our research to the SDGs. In all, 32 workshops were held and 397 researchers completed the mapping form. Researchers were also invited to submit detailed case studies describing the impact of their research on the SDGs.

02

PUBLICATIONS MAPPING

UCC publications 2017 - 2021 mapped onto the SDGs using SciVal / Scopus. Analysis undertaken of key publications metrics

04

SDGs WORKSHOPS

90-minute workshop developed and delivered in all 27 Schools and 8 key Research Centres within the University. All researchers invited to map their own research

06

SHOWCASING OUR IMPACT

Website and report developed to showcase the impact UCC Research is having on the SDGs

01

LITERATURE REVIEW

Detailed literature review to establish best practice

03

SDGs CHAMPIONS

University-wide SDGs Champions Network established to help with rollout of SDGs workshops

05

IMPACT CASE STUDIES

All researchers invited to submit detailed case studies describing the impact of their research on the SDGs



Another recommendation of the Action Group was to include a "Presidents Award for Research Impacting the Sustainable Development Goals" in the Research Office annual awards. The inaugural award was presented, in June 2021, to Dr Ger Mullally for the "Imagining 2050" project.



Imagining 2050 is an innovative transdisciplinary consortium hosted by the ERI at UCC in partnership with Queen's University Belfast. The project looks at the importance of involving a wide range of communities and stakeholders to co-develop future visions of, and pathways to, a low carbon future. A toolkit has been developed to help guide engagement with members of the public about climate mitigation, climate adaptation and societal transitions. The project was funded by the Environmental Protection Agency.

New Green Campus Living Laboratory Projects funded.

In Oct 2021 a second call for funding was announced under the UCC Green Campus Living Laboratory Programme. Three projects received funding. The projects included one masters by research led by Professor Ruth Ramsay (School of BEES) exploring the efficacy of UCC as an outdoor classroom for promoting biodiversity and climate awareness in local primary school children.

Two demonstration projects were also funded. The first, led by Dr Eimear Maloney in Microbiology, and in association with Cork Urban Soil Project, was looking at the composition of soil collected at local farmer's markets, and the second led by Professor Barbara Doyle Prestwich established an urban farm at the North Mall site using green tower systems (see Section 4 for more information).

4. Food, Health and Wellbeing

Strategic Aim: To enhance the health and wellbeing of the University and wider community through the facilitation and promotion of healthy eating and living as an integral part of sustainable living

Urban farm launched at North Mall.

In May 2022, UCC's Urban Farm was launched at the North Mall complex, with funding from the Green Campus Living Laboratory Seed Fund programme. The farm uses an aeroponic system, an advanced form of hydroponics, which involves growing plants without any substrate (soil), using only water and nutrients. The plants are suspended in the air, and their roots are periodically misted with nutrient solution. Sustainability is central to this project. The Urban Farm operates on a closed-loop system, which uses 98% less water in comparison to traditional farms. A key feature of this project is that this system can be established anywhere, which makes it especially useful in non-traditional settings.

Projects like the Urban Farm have huge potential to help us learn more about the mental health, therapeutic, and wellness benefits of these types of green initiatives. The launch occurred to coincide with International "Fascination of Plants Day".



Left: An aeroponic tower growing herbs and lettuce, and below: The UCC Urban Farm team members Eoin Lettice, Barbara Doyle Prestwich, Mary O'Shaughnessy, Michelle Cronin and reps from Tower Farms Ire.



Self-Care is Climate Care

The climate crisis is increasingly recognised as a significant cause of anxiety nowadays. This is particularly true for young people, many of whom are acutely aware of the profound impact climate change will have on their future and feel powerless to do anything about it.

In some cases, a certain level of anxiety about the state of the planet is helpful as it might encourage more action. High levels of climate anxiety, however, can have the opposite effect, leading to a sort of paralysis and preventing action. Panic attacks, insomnia, obsessive thinking and appetite changes have been reported in the literature.

In 2021, UCC Green Campus began working with local company "The Green Step" to provide a series of "eco-grief" workshops for students and staff of UCC.

The Green Step is run by Melanie O'Driscoll, an ex-UCC student. Her work is informed by her past experiences as a young activist struggling with climate anxiety. Her practise is informed by restorative practise and non-violent communication. "Self Care is Climate Care" workshops provide a space for climate activists in our community to share and listen with compassion to one another as we process and navigate the climate emergency. The aim of the workshops are to help staff and students feel a bit lighter, energized and find a few new tools to manage climate anxiety through the use of guided, earth based meditations. The sessions guide participants include:

- Trust building exercises
- Deep listening and empathy skills
- Understanding boundaries for better self-care
- Guided meditations and mindfulness techniques
- Art therapy
- Community care
- Peace building techniques as an inner resource
- An opportunity to expand your self-awareness and heal past traumas



SELF CARE IS CLIMATE CARE

AN INTERACTIVE WORKSHOP ON COPING WITH ECO-ANXIETY AND BUILDING CLIMATE RESILIENCE WITH MELANIE O'DRISCOLL FROM THE GREEN STEP

 **6 - 8:30PM 14TH DECEMBER**
(ON MS TEAMS) 

5. Landscape, Heritage and Natural Resources

Key Strategic Aim: To promote and engage in the sustainable use and management of the landscape and natural resources of the University, in all its campus areas, with respect to ecosystem services, natural and cultural heritage.

May 2022 saw the culmination of an exciting new collaboration between UCC Green Campus and the team at the Glucksman Gallery. As part of the Gallery's "Parklife" exhibition artist Amber Broughton, undertook a Green Campus commission creating a number of detailed drawings depicting wildlife on campus. Ten of the 451 species of flora and fauna on campus were chosen for the drawings. The exhibition also featured a series of paintings of the Scots Pine, one of Ireland's three native coniferous trees as well as research investigations into the ways in which communities are conserving seeds to protect food crops for future generations.

The Parklife exhibition was curated by the Glucksman curatorial team in association with UCC's Environmental Research Institute and presented the work of Irish artists who consider the biodiversity of the world around us, looking at how different forms of life thrive in the urban realm as well as in more remote environments.

A UCC CUBS commission with artist Peter Nash portrayed first year economics students' experiences and feelings about climate action. This is part of the CREATE project, an ongoing art-based learning project for UCC Business students.



Cork Nature Forum: A new voice for nature in Cork

On July 9th 2022, UCC Green Campus, together with Cork Environmental Forum, ran the first event of our biodiversity coalition initiative entitled 'Making Space for Nature in Cork City'. The purpose of this event was to bring people together to begin building a coalition of local groups and concerned individuals to protect and restore nature in Cork City.



Given the continued destruction of our ecosystems, needless felling of trees, and reduction of our shared public green spaces, we decided that enough was enough. Biodiversity in Ireland is rapidly declining, and we must ensure that biodiversity conservation is at the centre of all planning and development decisions made by Cork City Council and other key stakeholders in Cork. An all-of-society approach is required to reverse nature losses and enable the protection, conservation, and restoration of our habitats and green spaces. and we need people from across Cork to come together and demand action from our leaders.

This 2 hour event utilised a workshop-based format and participants took part in 3 discussion sessions to identify areas of common concern and potential collaborative opportunities.

- Session 1: Protect, Enhance, and Restore Nature in Cork
- Session 2: Campaign Ideas
- Session 3: Next Steps

There was a very clear desire from participants to engage more in the protection and enhancement of biodiversity within Cork City. This event was just the first step. We will start from here and work to keep building this initiative and make it as impactful as possible.

6. Recycling and Waste Management

Key Strategic Aim: To minimise the local, regional and global environmental impacts of our educational, research, operations and infrastructural development, specifically in relation to waste management and recycling

Overall waste figures for 2022 show that the total waste tonnage has increased significantly, though not as much as would have been expected given the return of students to campus (Fig.). It is possible that this trend is due to the significant reduction in printing on campus brought about by the combination of pandemic measures and the sustainable print policy.

Recovery of campus food waste has also increased, but remains well below pre pandemic levels. Overall recycling however is still below pre-pandemic levels. This is potentially related to an increased use of disposable items during the pandemic, for example facemasks and cups. This has placed a renewed emphasis on the need to remove disposables from campus.

Delivering a Plastic Free UCC

While some ground had been lost over the course of the pandemic, a key milestone was reached in May 2022 when the University Leadership Team passed a new "UCC Single Use Plastics Policy" banning the use of a wide range of disposable items in the University's catering operations. It was agreed, that from January 2023, no single use bottles or cups should be sold in campus outlets. A transition phase will be put in place during which specific supports will be provided by the university.



Fig. Waste tonnages for UCC 2017 - 2022

Reducing Waste on Campus

While it is vital to encourage the correct segregation and disposal of waste on campus, to be truly sustainable we must focus on reducing the sources of waste in the first place.

The return to campus in 2022 also saw a return of UCC's Community Markets. Stalls included Earthways Refill with a selection of eco friendly, refillable products ranging from shower gel, to washing detergent, from olive oil to pasta.



In December 2021, UCC Green Campus, in collaboration with the Equality Diversity and Inclusion Unit, launched a "Plastic Free Periods for All" campaign. As part of this campaign Abigail O'Callaghan-Platt from charity VOICE Ireland delivered a workshop looking at disposable and reusable menstrual items. In this 40-minute workshop we'll talk about our options and look at menstrual cups, period pants and cloth pads; how much they cost, where to buy them and how to use them!



The broader campaign aimed at making plastic-free period products freely available to UCC students and staff at key locations across campus. UCC's Student Centre have already made local and plastic-free product Riley available in their bathrooms.



7. Energy, Water and Climate Change

Strategic Aim: To minimise the local, regional and global environmental impacts of our educational, research, operations and infrastructural development, specifically in relation to energy, carbon and water management

In spite of the additional requirements on our energy system due to the pandemic measures, 2021/22 still saw a reduction in consumption when compared with the baseline year of 2018/19.

Over the course of the year, a total of 25 energy projects were completed with a total saving of over 689,000 KWh. Example projects included the upgrading of Brookfield Health Sciences Complex to LED lighting and the installation of solar panels on some of the houses at Carrigside. The aim of the latter project is to test several heating and ventilation strategies that if proven successful, can be rolled out to other similar buildings over time. The project saw the gas heating systems replaced with electric radiators, PV panels installed on the roof with battery storage in order to meet the total energy requirements for the summer months.

In November 2021, the Irish Government launched its latest Climate Action Plan, which committed all public sector bodies to reduce their absolute carbon emissions by 51% by 2030. This target concerns scope 1 and 2 emissions, principally related to our gas and electricity consumption. UCC set about mapping its "gap to target" and has developed a list of projects which will need to be implemented in order to meet the required emissions reduction target. This list ranges from major deep retrofit projects to lighting upgrades and behavioural change programmes.

Scope	2021/22	2020/21	2019/20	2018/19
Electrical GWh	19.14	17.3	17.1	19.87
Gas GWh	19.54	22.74	18.8	19.2
Total GWh	38.6	40.04	35.9	39.07
Total GWh (normalised)	38.59	38.59	35.7	40.58

Fig. Electrical and Gas consumption 18/19 - 21/22

Student's and staff take part in UCC's Second Annual Climate Assembly

UCC's 2nd Climate Assembly event was held on 1st April 2022 at the Devere Hall. The assembly was open to all staff and students and members of the Green Forum facilitated world café style discussions focused on the 9 key areas of the UCC Sustainability Strategy. Guest speakers included Sinead Walsh from the Department of Foreign Affairs, and Amy O'Brien, a youth climate activist.

The event was organised by UCC Student Union's Environment and Sustainability Rep Alicia O'Sullivan and a report from the event was presented to the University's Green Forum. The Climate Assembly events represent an opportunity for all students and staff to have a say in sustainability on campus.

Events on campus mark COP 26

As part of UCC's activities to mark the COP 26 meeting which was held in Glasgow in November 2021, UCC organised a "mock COP" event on campus. Led by Dr Fionn Rogan (ERI), the Mock COP saw students representing the positions of different countries in a simulation of negotiations. As the host nation of COP 26, the British Ambassador to Ireland, Paul Johnston, delivered a message to the students. The idea of the Mock COP is to give an insight on how difficult the negotiations can be.

UCC also unveiled a specially commissioned mural by local artist Kevin O'Brien. The mural represents a positive vision of a sustainable city and depicts Cork against an imagined future version of itself.



Green Labs Community



Laboratories are some of the most resource-intensive spaces of any industry and they create a lot of waste. This doesn't have to be the case. By introducing new ideas and following already existing guidelines, there are ways to reduce the impact of research on the environment. Even small changes can make a big impact in areas where sustainability hasn't always been a priority.

As the first university in the world to receive the Green Flag from the Foundation for Environmental Education, UCC is committed to reducing its impact on the environment. The laboratories play an important role in the university, but are significantly more resource intensive than other areas, as a result it is important to focus on specific ways to reduce their impact. In order to make labs more sustainable, the lab community in UCC has chosen to follow the LEAF programme. Find out more in the LEAF section.

Eight UCC laboratories are now part of the UCC Green Labs Community. Five of these labs have been awarded Bronze Certification under the LEAF Green Labs Framework.



8. Commuting and Business Travel

Strategic Aim: To promote and encourage the use of sustainable modes of transport for staff and student commuting, and minimise associated impacts of commuting on University neighbours and the wider city community, and the climate.

In 2021 UCC began a pilot blended working policy which has the potential to significantly impact commuting emissions, though no data are available yet. In the meantime, the university continued to invest in improved cycling facilities for students and staff. In April 2022, two new bike parking facilities opened. These included a sheltered facility for 72 bikes north of the Student Hub, with some cargo bike parking, and 20 new spaces at the South Lodge. In addition two new bike repair stands were installed, one on main campus and another at North Mall.



On 9th July 2022, UCC's University Management Team formally approved a "No Idling Policy" for the University. The aim of the policy is to eliminate vehicle idling by staff, students, visitors, delivery drivers and contractors on UCC premises and reduce vehicle emissions of air pollutants (CO, NOx, particulate matter) that are harmful to the UCC community and neighbourhood. A broader aim is that, in leading by example, UCC would spark in the wider community and society. Engine idling is a source of significant air pollution, particularly outside schools, and it also emits carbon dioxide, thereby contributing to climate change.

Thanks to Prof. Dean Venebles (pictured left) for championing this important policy in UCC.



UCC's e-bike trial continued to be a huge success this year. Established in 2019, the goal of the trial is to help influence a change in people's primary mode of transport from car to E-Bike.



Since then our UCC E-Bikes have covered a distance of over 4,300km, the equivalent of ten trips from Malin to Mizen. Questions about battery life, E-Bike performance on hills and investment cost versus return were answered. Nearly 10% of trialists have invested in their own E-bike through the Government "Bike to Work Scheme" administered through UCC.



According to UCC staff here are the top 5 benefits of E-Biking (in descending order):

- Easier for Commuting
- Help the environment
- Improved health and Fitness
- Cheaper alternative to a car
- Parking woes eliminated.

In May 2022, an "E-Bike Show and Tell" event was held on campus. Green Campus staff members were joined by Cillian from "The Bike Shed" to answer questions about the range of bikes available and the Cycle to Work scheme. Staff members followed a designated route around campus on an E-Bike under the watchful eye and support of our E-Bike Ambassadors and got to feel for themselves how wonderful travelling by E-Bike can be. Here is some of the feedback we received:

"I never thought I'd cycle a bike again, let alone an electric bike but I love it"



"I had no idea how do-able this was and with the cycle to work scheme I'm definitely going to invest".

Interested staff members can find out more about the scheme on the UCC Green Campus website.

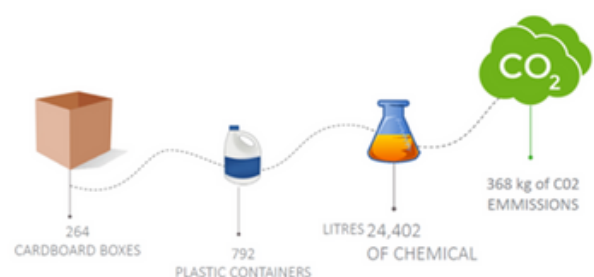
9. Procurement and Contracts

Strategic Aim: To minimise the local, regional and global environmental impacts of our educational, research, operations and infrastructural development, specifically in relation to the purchase of goods and services by and for the University

Procurement, including the procurement of construction services, accounts for almost 20% of the University's total annual carbon footprint. In recognition of this impact, the UCC Procurement Office include sustainability in all tendering specifications and criteria. Recent successful green procurement projects included the University's cleaning services, graphic design services, security services, carpark management service, and sustainable printing service.

Thanks to the inclusion of sustainability as a key pillar of our printing contract, all new printers are now refurbished models and overall, the university has seen a 77% reduction in printing related emissions. The new managed print system has seen the University reduce printing from 15million pages in 2019 to just over 5 million pages currently.

Likewise, the first year of implementation of our chemical free cleaning programme has resulted in savings of 264 cardboard boxes, 792 plastic containers, 24,402 litres of chemicals and 368kg of CO₂. The new cleaning system utilises the tersano cleaning system, which combines water with oxygen to create ozone, a chemical free cleaning solution that reduces the need for flushing of drains and therefore overall water consumption. The fact that the system doesn't require the purchase of any chemical cleaning agents means that packaging and delivery emissions are eliminated.



Driving the Green Procurement Agenda.

For a number of years now, UCC has been one of the leaders in Green Public Procurement within both the higher education sector and more widely in the Public Sector. In 2022, UCC's President supported a research project to document the challenges and opportunities in relation to GPP and to share the lessons that have been learned from our experiences. This work is ongoing.

Our leadership in this space was key to the University being named the Most Sustainable Large Organisation at the PWC Sunday Business Post inaugural Sustainable Business Awards, held in May 2022. UCC was up against Aldi, AIB, An Post and Johnson and Johnson and came out on top because of what the judges described as our sector leading approach, both nationally and internationally.



Communications and engagement



In light of the pandemic, it has become arguably ever more important to find new and more engaging ways of communicating to as wide an audience as possible. In 2021/22, we established a new series of lunchtime talks called "The Green Zone", where we heard from both local and national experts on topics related to sustainability. The online talks were open to all and provided a space for questions and discussion on each topic.

In April 2022, a second issue of "Uprooted" was published. Uprooted is an environmental publication focused on ever-growing climate crisis and the beauty of the natural world. Uprooted was first published by UCC Environmental Society in 2020. The aim of Uprooted is to give people a platform where their voices can be heard and amplified.

This year we continued to record and release new episodes of our increasingly popular UCC Green Campus Podcast series. Contributors to this year's series included UCC's own Commuter Manager, Stephan Koch, Eco-grief practitioner Melanie O'Driscoll, lecturer Professor Hannah Daly, and a special Irish language episode with climate activist, language student, and Gaeilgeoir, Síofra Nic Risteaird



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