



D4.3

Annual report on dissemination, exploitation, and communication activities

WP4 TRANSLATE Dissemination, Exploitation and Communication

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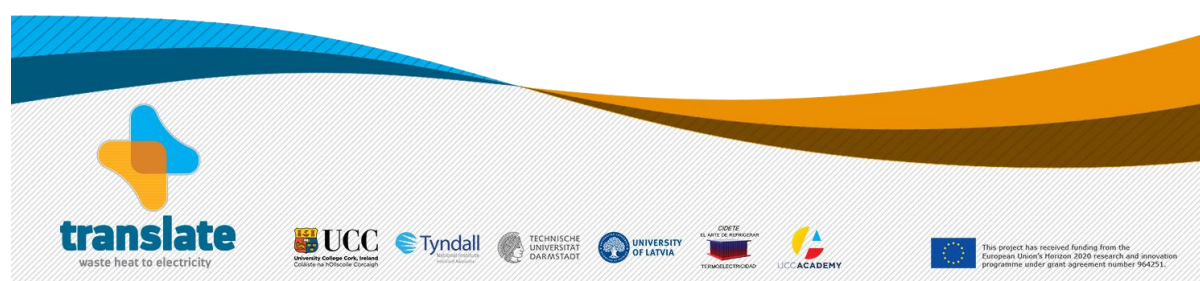
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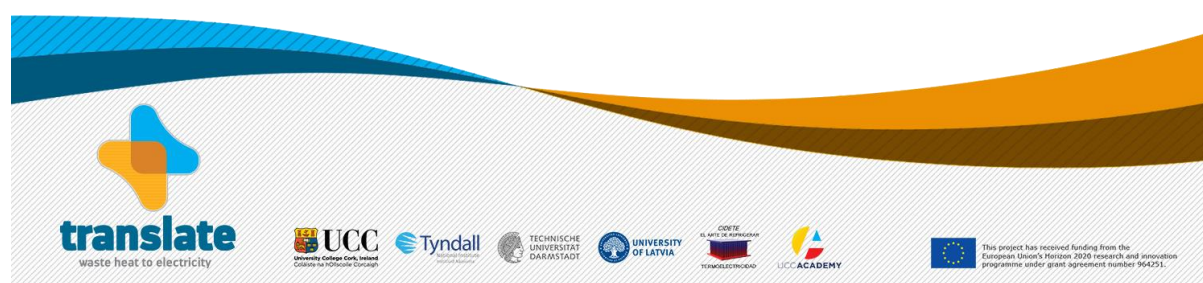
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Executive Summary

This document summarises a deliverable (D4.3 “Annual report on dissemination, exploitation, and communication activities”) of TRANSLATE Work Package 4. This deliverable is part of Task 4.2 “Implementation of the DEC Plan”.

Sections 2 and 3 include a high-level overview of our strategy for dissemination, exploitation and communication, as derived from our DEC plan (Deliverable 4.1).

Sections 4-6 summarise our key activities over the past year (1 June 2021 – 31 May 2022), broken down by Communication, Dissemination and Exploitation activities.

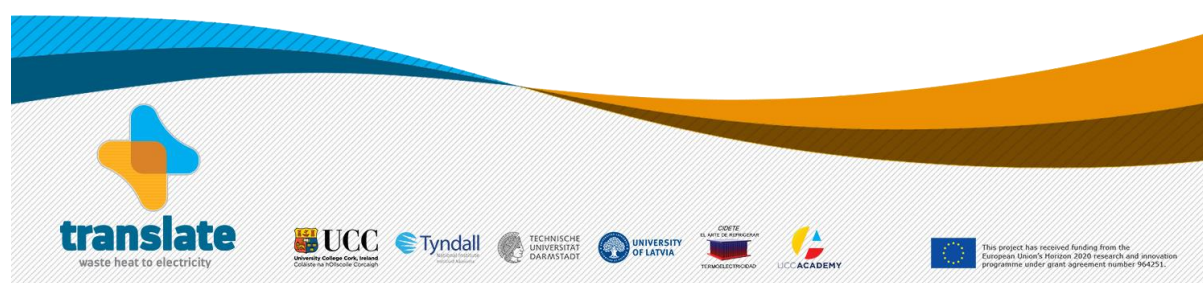
Table 1 shows the key objectives, audiences, channels, KPIs, and progress to date.

About TRANSLATE

Tackling climate change requires a radical shift in how we produce and consume energy, away from fossil fuel burning and towards clean, renewable sources of energy. Yet every day, it's estimated that 70% of all the energy produced from sources such as power generators, factories, and homes is lost in the form of heat, which evaporates away into the atmosphere. This wasted heat is one of the largest sources of clean and inexpensive energies available, and yet it is currently untapped.

Although technologies for converting waste heat into electrical energy have been around for a long time, there is still no environmentally sustainable and efficient technology platform available for the harvesting of low-grade waste heat.

The central aim of TRANSLATE is to develop a new proof-of-concept nanofluidic platform technology based on the flux of ions in nanochannels, leading to a breakthrough in versatile and sustainable energy harvesting and storage.



1. Introduction

The European Commission's commitment to [Responsible Research and Innovation](#) (RRI) and its broader 'Science with and for Society' objective aims to ensure that EU-funded research helps meet the current social, ethical, and political demands in society. Good dissemination, exploitation and communication is a critical component of fulfilling this commitment which the TRANSLATE project aims to achieve through the implementation of an effective strategy across all three areas.

According to the [Horizon 2020 Online Manual](#), **dissemination** refers to sharing research results with potential users including peers in the research field, industry, other commercial players and policymakers, **exploitation** refers to the use of results for commercial purposes or in public policy making, and **communication** refers to providing targeted information to multiple audiences (including the media and the public), in a strategic and effective manner and possibly engaging in a two-way exchange. Whilst all three of these areas of engagement are linked, they also need to be considered separately when devising an effective DEC plan. TRANSLATE's DEC plan focusses on the key objectives, audiences, messages and channels for dissemination and communication, as well as the procedures put in place to facilitate exploitation.

2. Strategy for TRANSLATE dissemination and communication

The following sections outline our overall strategy for dissemination and communication which is summarised in Table 1. This strategy is structured according to the following questions:

- Why? – our key objectives
- Who? – the main audiences we want to reach
- What? – the main messages we want to deliver to these target audiences
- Where? – the channels through which we want to deliver these messages
- When? – the key events and activities that are taking place in order to implement our strategy

The content in these sections has been informed by a survey that was conducted at the beginning of the project in June 2021, along with a follow up workshop which was held to discuss the survey results. Both of these activities were led by UCC Academy with inputs gathered from all partners.



2.1 Why – Key Objectives

In order to implement a successful dissemination and communication strategy, we first had to tease out and agree on our main objectives. The results of the survey (Figure 1) and further discussion revealed that the three main overarching objectives are to:

1. Raise **awareness and understanding** of the research in TRANSLATE amongst the general public, specifically its importance, challenges and advances, and how it is trying to solve energy and environmental issues.
2. **Disseminate project results** at European and international conferences and industry events.
3. **Engage with similar projects** in order to achieve greater impact.

Further details on these objectives including Key Performance Indicators (KPIs) are covered in Table 1 to ensure they are SMART (Specific, Measurable, Achievable, Relevant and Time-bound).

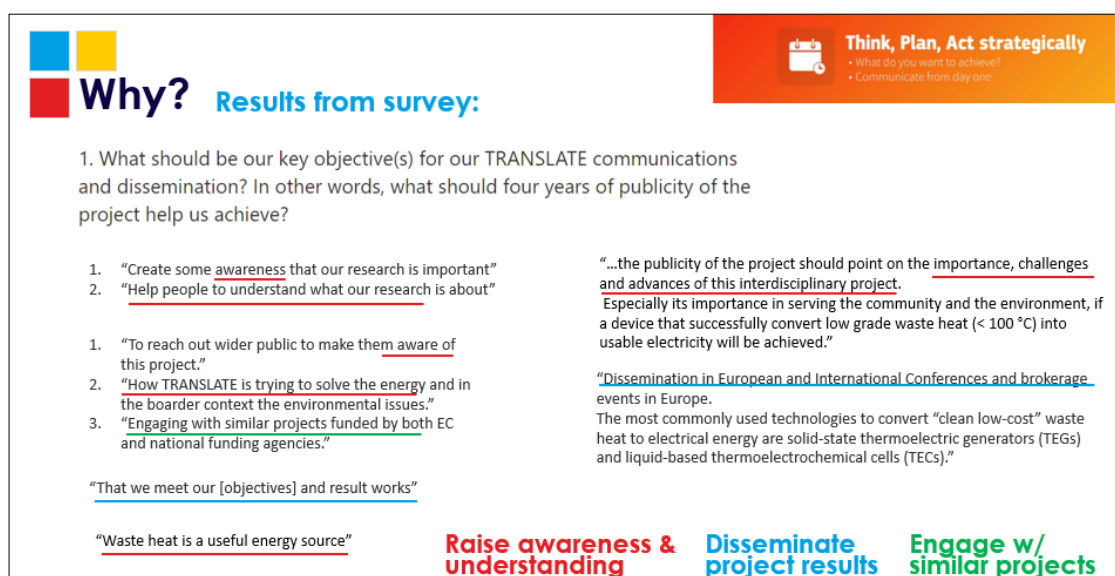


Figure 1: Summary of partner responses to an online survey on TRANSLATE communication and dissemination objectives, June 2021 – What should be our key objective(s) for our TRANSLATE communications and dissemination?

2.2 Who – Key Audiences

Identifying our main target audiences was the next component to defining our strategy. These include:



1. **Industry partners** and future users of the TRANSLATE device
2. **Researchers and academic colleagues** (in materials science, energy harvesting, and waste heat capture)
3. European **research funders** (current and future) interested in sustainable energy projects
4. **Public and community groups** who are interested in emerging sustainable tech

The first three audiences were chosen due to the nature of TRANSLATE as a proof-of-concept project. Our efforts in dissemination will target these audiences specifically. An important part of our overall strategy is also to engage the general public with our communication and outreach activities. This will help achieve our objective of raising awareness and understanding of the research in TRANSLATE and its importance in the wider context of the energy and environmental issues facing society.

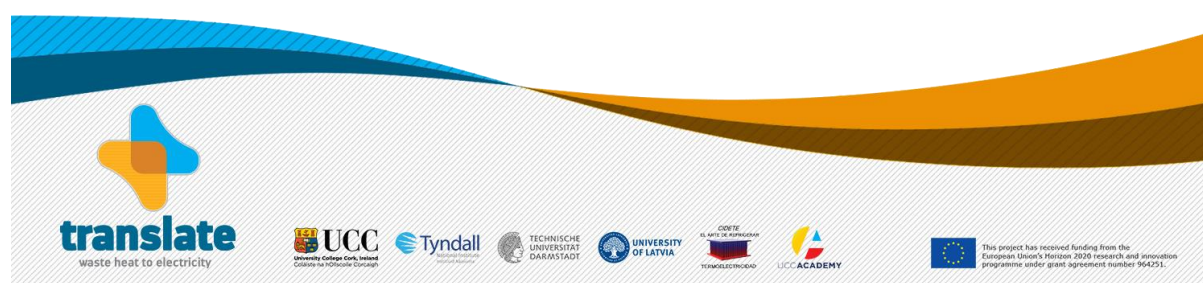
2.3 What – Key Messages

Once our target audiences were identified, we then captured the main messages we want to deliver. The survey conducted with the consortium helped to shape this messaging which broadly fits under three key themes which are:

1. The **wider societal and environmental benefits** that the project's aim will achieve.
2. The **applicability of the technology** in TRANSLATE to a wide range of industries.
3. The **collaborative and interdisciplinary** nature of the project.

These themes have been incorporated in the messaging for the TRANSLATE project website (translate-energy.eu) which went live on 1st October 2021. Specific messaging under these themes which will be employed to reach our target audiences are included in Table 1.

In addition to our specific messaging about TRANSLATE, all forms of dissemination, exploitation and communication will acknowledge EU funding. This is built into our website and social media channels, as well as our project templates for presentations, posters, and publications.



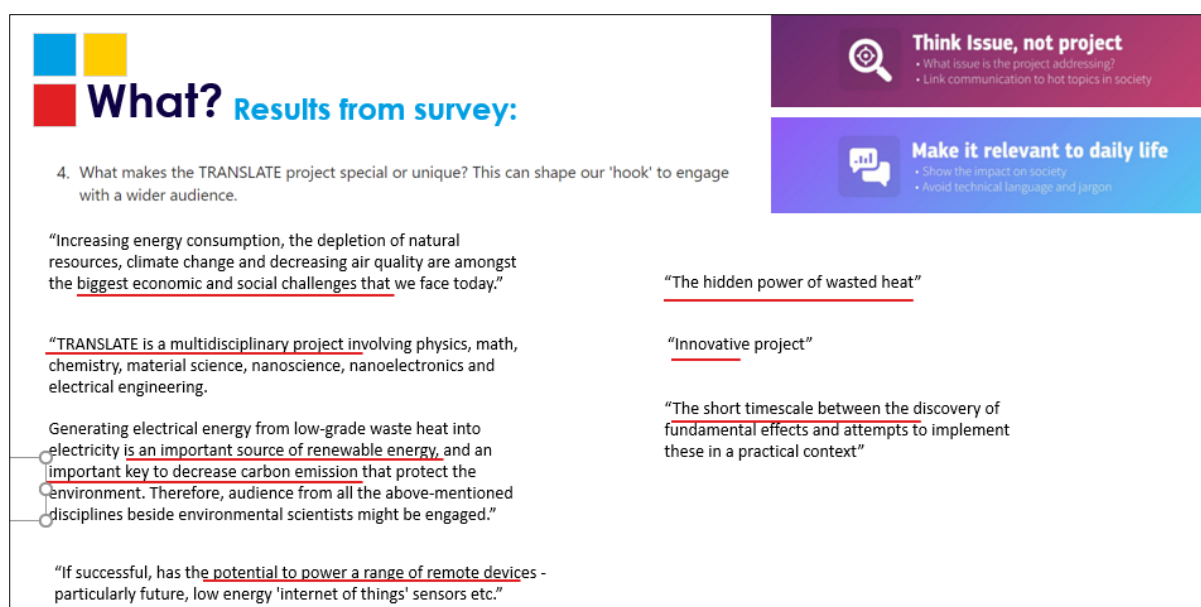


Figure 2: Summary of partner responses to an online survey on TRANSLATE communication and dissemination objectives, June 2021 – What makes the TRANSLATE project special or unique?

2.4 Where – Key Channels and Key Performance Indicators (KPIs)

Finally, we defined the various channels that will be employed over the course of TRANSLATE to ensure that the right message is delivered to our target audiences. Some of these channels will be used solely for dissemination or communication and others will be used for both activities. The effectiveness of these channels in achieving our objectives will be measured by Key Performance Indicators (KPIs). A summary of the main channels and KPIs is included in Table 1 below.

2.4.1 Publications

Publications, both scientific and non-scientific, are an important channel in our overall dissemination and communication strategy. Scientific publications will form the backbone of the dissemination strategy, with results from the project being disseminated to key scientific communities across different peer-reviewed, subject-specific journals. All scientific publications will be made open access, with the data made open access via our community page on the open access repository Zenodo. Non-scientific publications including articles published in the media will be important for communicating scientific results from the project to the general public, and will be facilitated by engaging press releases. Informal publications in the form of blog posts which will be hosted on the TRANSLATE website will be key for driving engagement on the website and communicating topics related to the project that have relevance amongst the general public.

KPIs: Number of publications, citations, article views and downloads.

2.4.2 Events

Events will facilitate two-way engagement with our target audiences which will be important for gathering feedback on both the project and our overall strategy in dissemination and communication. As with scientific publications, conferences will facilitate the dissemination of results from the project to the research community. Industry and networking events will become particularly important in years 3 and 4 of the project when there are more tangible outputs. In terms of communication, community and outreach events will be important to involve and integrate the public in TRANSLATE research activities, and will be necessary to achieve our objective of raising awareness and understanding of the research in TRANSLATE amongst the general public.

KPIs: Number of events attended/organised, qualitative feedback from surveys, anecdotal feedback from consortium participants and number of contacts/collaborations.

2.4.3 Website

The TRANSLATE project website (translate-energy.eu) is integral to our dissemination and communication strategy as it is the focal point for sharing progress updates on the project. The aim of the website is to be a resource to find out more about the project, with content that is relevant, accessible, accurate and up to date for our key audiences. As well as information about the project research and team, the website also includes a [News & Events](#) page for press releases, blogs, newsletters and upcoming events, and a [Research](#) page aimed at research and industry that will include links to all project publications, data and materials. On all pages, visitors are encouraged to follow the project's progress through our social media channels.

KPIs: Page views, website visits and bounce rate.

2.4.4 Social media

Given our target audiences, the social media platforms that were selected as the most relevant to our strategy are LinkedIn and Twitter. Accounts for both of these platforms were set up in June 2021 (LinkedIn: [linkedin.com/company/translate-energy](https://www.linkedin.com/company/translate-energy); Twitter: twitter.com/TranslateEnergy). Both platforms will be important for disseminating short summaries of project milestones including research publications and outputs, with Twitter being most important for reaching the research community and funders, and LinkedIn being most important for reaching industry professionals. These platforms are also vital for our communication strategy as a place for sharing blog posts and articles



on results from the project relevant to the general public, and for learning about upcoming community and outreach events applicable to TRANSLATE.

KPIs: Number of followers, number of post likes and retweets.

2.4.5 Video

Video has become increasingly relevant to science dissemination and communication in recent years and will form part of our strategy for distilling complex information in an engaging format. As part of the initial launch of TRANSLATE, we created a video summarising the main aims, objectives and partners involved in the project which is featured on the project website [homepage](#). We plan to create a number of videos over the course of the project to facilitate the dissemination and communication of our results and outputs.

KPIs: Number of videos and video views.

2.4.6 Resources and materials

As mentioned in section 2.4.3 above, we have created an area of the TRANSLATE website on the Research page that is dedicated to hosting resources and materials from the project. These resources will take many forms including infographics for communicating graphical representations of research outputs, as well as technology fact sheets for disseminating the benefits, uses and Technology Readiness Levels (TRLs) of project outputs. We plan to highlight these materials at conferences and events, on social media and in an annual newsletter.

KPIs: Downloads and page views.

2.5 When – Key Events

The most impactful dissemination and communication activities will take place in years 3-4 when the project will have a significant amount of research output. Between now and then however, there are many events and activities that TRANSLATE will participate in to build networks and raise awareness of the project. Appendix 1 includes a list of these dissemination and communication activities that are planned since the start of the project and over the course of the next year. This list is a living document that will be continually added to over the course of the project.



Table 1: Summary of the TRANSLATE dissemination and communication strategy

Key objectives	Key audiences	Key messages	Key channels and KPIs	Progress for RP1 (as of May 25 th , 2022)
1) Raise awareness and understanding of the research in TRANSLATE amongst the general public, specifically its importance, challenges and advances, and how it is trying to solve energy and environmental issues.	1) Members of the public and community groups who are interested in emerging sustainable tech	<p>“Waste heat energy discharged into the atmosphere is one of the largest sources of clean, fuel-free and inexpensive energies available.”</p> <p>“Generating electrical energy from low-grade waste heat into electricity is an important source of renewable energy, and is key to decreasing carbon emissions.”</p> <p>“Accessing this largely untapped energy source could help tackle some of the biggest economic and social challenges we face today including climate change and the depletion of natural resources.”</p>	<ul style="list-style-type: none"> Social media (Twitter) e.g. retweeting content from the media about environmental issues and highlighting the work in TRANSLATE; KPI(s): Number of followers; Target: At least 50 followers by the end of year 1 and 300 followers by end of the project. Video e.g. summary of research outputs in accessible language; KPI(s): Number of videos and video views; Target: At least 1 video by the end of year 1 and at least 4 videos by the end of the project. Blog posts e.g. topics such as the link between TRANSLATE and wider societal issues; KPI(s): Number of blog posts and page views; Target: At least 2 blog posts by the end of year 1 and at least 6 blog posts by the end of the project. Press releases e.g. communicating results from scientific papers that are interesting for a general audience; KPI(s): Number of press releases and 	<ul style="list-style-type: none"> 55 followers on Twitter 1 video created at the launch of the project 10 blog posts on the project website 2 press releases (1 UCC, 1 UL). 1 article in Technische Universität Darmstadt newspaper.

			<p>amount of media coverage; Target: At least 2 press release by the end of year 1 and at least 6 press releases by the end of the project.</p> <ul style="list-style-type: none"> Events e.g. outreach events to engage in two-way communication with the public; KPI(s): Number of events attended and feedback from events via surveys; Target: Participation in at least 1 outreach event by the end of year 1 and at least 4 outreach events by the end of the project. 	<ul style="list-style-type: none"> 1 outreach event has been attended – UCC’s Environmental Research Institute (ERI) projects showcase event.
<p>2) Disseminate project results at European and international conferences and industry events.</p> <p>3) Engage with similar projects in order to</p>	<p>2) Researchers and academic colleagues (in materials science, energy harvesting, and waste heat capture)</p>	<p>“Nanochannels, fabricated from cheap Earth-abundant materials and infiltrated with ionic conductive liquids, have the potential to play a key role in the capture and conversion of low-grade waste heat into electrical energy.”</p> <p>“The individual processes in the TRANSLATE technology will work synergistically together at the</p>	<ul style="list-style-type: none"> Scientific papers in peer reviewed journals e.g. <i>Physical Review Letters</i>, <i>Nature Energy</i>, <i>Nano Energy</i>, <i>ACS Applied Energy Materials</i> and <i>Advanced Energy Materials</i>; KPI(s): Number of papers and citations: Target: 12 papers by the end of the project (all open access). Scientific conferences e.g. MRS, EMRS and APS, as well as other smaller subject-specific conferences; KPI(s): Number of conference attended and number of 	<ul style="list-style-type: none"> No papers published yet – the project is still in its early phases and significant results are not expected for another 6 months. 1 presentation at a conference. This number could be higher, but many

achieve greater impact.		nanoscale level to create an energy harvesting technology that has the potential to exceed the efficiency of the current state-of-the-art thermoelectric generators and liquid-based thermoelectrochemical cells."	<p>conference presentations; Target: At least 3 conference presentations by the end of year 1, at least 20 conference presentations by the end of the project.</p> <ul style="list-style-type: none"> • Social media (Twitter) e.g. short summaries of research progress and results; KPI(s): Number of followers; Target: At least 50 followers by the end of year 1, 300 followers by end of the project. • Events e.g. EU energy initiatives involving other similar EU projects such as ReUseHeat, COOL DH, REWARDHeat and Waste-not; KPI(s): Number of engagements/collaborations; Target: At least one engagement before the end of the year and at least 4 by the end of the project 	<p>relevant in-person conferences did not go ahead due to Covid-19. Conferences will become more frequent for the project once significant results are published, and since most Covid-19 related restrictions are now lifted.</p> <ul style="list-style-type: none"> • 55 followers on Twitter • TRANSLATE has joined the EIC 'Energy harvesting, conversion & recovery' portfolio, and is awaiting updates from the EU programme managers on networking events with other similar EU projects.
	3) European research funders (current and future) interested in	"Generating electrical energy from low-grade waste heat is a key enabler to meet the growing global energy demand, whilst	<ul style="list-style-type: none"> • Social media (Twitter and LinkedIn) e.g. short summaries of project milestones on Twitter and LinkedIn, tagging relevant hashtags and accounts such as European 	<ul style="list-style-type: none"> • 55 followers on Twitter

	<p>sustainable energy projects</p>	<p>reducing Europe's carbon footprint and supporting the realisation of the UN SDG7-Energy plan, the European Green Deal strategy and Europe's binding renewable energy targets for 2030."</p> <p>"TRANSLATE is a multidisciplinary project involving physics, math, chemistry, material science, nanoscience, nanoelectronics and electrical engineering."</p>	<p>Innovation Council, European Environment Agency, EU Climate Action, UN Environment Programme; KPI(s): Number of followers; Target: At least 50 followers by the end of year 1, 300 followers by end of the project.</p> <ul style="list-style-type: none"> Events e.g. EU project networking events such as FET Briefing's 'Research Meets Industry' event; KPI(s): Number of events attended, number of contacts/collaborations: Target: At least 1 EU event attended by the end of the year, at least 4 attended over the course of the project. Websites e.g. CORDIS platform and Horizon Results Platform; KPI(s): Number of contacts made from project profiles; Target: At least one contact made by end of the year, at least 4 contacts made by end of the project. 	<ul style="list-style-type: none"> Met with EIC programme managers in Summer 2021, and information on TRANSLATE has been shared with them. Joined the EIC 'Energy harvesting, conversion & recovery' portfolio, and awaiting updates from the EU programme managers on networking events with other similar EU projects.
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				<ul style="list-style-type: none"> No contacts made yet from EU websites – activity here will increase once the project starts to publish results.
	4) Industry partners and future users of the TRANSLATE device	<p>“The technology in TRANSLATE will improve the energy efficiency of many devices and systems, such as combustion engines, industrial manufacturing and conversion processes, by recovering large amounts of waste heat from these systems and converting it to useable electricity.”</p> <p>“TRANSLATE’s approach of generating electrical energy from low-grade waste heat and from very small temperature differentials has the potential to revolutionise the field of waste heat harvesting for both portable electronic devices and</p>	<ul style="list-style-type: none"> Industry events e.g. Dublin Tech Summit; KPI(s): Number of events attended; Target: At least 1 industry event attended by the end of the year, at least 4 attended over the course of the project. Social media (LinkedIn) e.g. short summaries of research progress and results; KPI(s): Number of followers; Target: At least 50 followers by the end of year 1, 300 followers by end of the project. Project resources e.g. technology factsheets and newsletter; KPI(s): Number of artefacts produced; Target: An annual newsletter and at least 2 technology factsheets by the end of the project. 	<ul style="list-style-type: none"> No industry events attended - many relevant events did not go ahead due to Covid-19. These events will become more frequent for the project once significant results are published, and since most Covid-19 related restrictions are lifted. 55 followers on Twitter Year 1 annual newsletter is in draft – expected to be published by June 17th 2022.

		wireless stationary applications, with scope to extend into other areas."		
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3. Strategy for TRANSLATE Exploitation

The objective of exploitation is to ensure that the research outputs from TRANSLATE are utilised. In many cases this use will be commercial, but there may also be uses that are oriented towards research and policy making. It is fully expected that the project will generate results with real potential for commercial exploitation. The TRANSLATE Executive Board are tasked with the responsibility of managing the exploitation of project results and outcomes. This includes ensuring potentially valuable IP is captured, evaluated and protected by the appropriate means as the project progresses. This role will become more important towards the latter end of the project when there are tangible outputs from the project for exploitation.

The dissemination and communication strategy outlined in the proceeding sections will facilitate exploitation by raising awareness of the research outputs from TRANSLATE amongst industry and policy representatives. A number of target companies have already been identified, including **Analog Devices (ADI)**, who provided a letter of support at the time of the project proposal expressing their interest in the technology being developed in TRANSLATE. New opportunities including potential companies and uses for the technology that come to light over the course of the project will also be explored and discussed amongst the Executive Board for their potential within the TRANSLATE exploitation strategy.

The procedures for the management of any IP generated in the project have been outlined and agreed upon in the Consortium Agreement (submitted at month 2). Once the IP agreements for the TRANSLATE technology have been put in place, it is at this stage that discussions will begin with interested companies. This will be facilitated by the technology transfer offices from the relevant partners. As per Article 28 of the Grant Agreement, each partner will take measures to ensure exploitation of the results in TRANSLATE, even beyond the end of the grant (for up to four years), by:

- (a) using them in further research activities (outside the action);
- (b) developing, creating or marketing a product or process;
- (c) creating and providing a service, or
- (d) using them in standardisation activities.

4. Communication activities within the first year

4.1 Branding

The first step in implementing the TRANSLATE DEC plan was to establish an online project identity. This included developing the project logo, branding, website and social media accounts within the first four months of the project.

UCC Academy led these activities, with collaboration from all project partners. A survey was conducted in early June 2021 to inform the DEC plan and all partners were encouraged to participate. This was followed by a workshop on June 16th to finalise the key messages, audiences, and branding for the website.

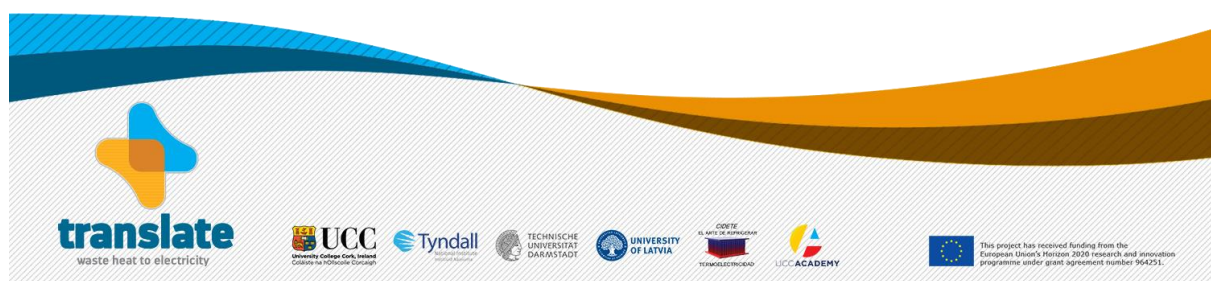
Logo

UCC Academy were responsible for developing the project logo and website. Following several design iterations in consultation with all partners, UCC Academy developed the final version of the TRANSLATE logo:



Figure 3 – TRANSLATE logo

The selected logo is a visual representation of the shift from one regime to another: waste heat as represented by the orange chevron transitioning to clean electricity as represented by the blue chevron. Horizontal lines reference the key technology behind



TRANSLATE, which is the nanochannel pores that create a flow of ions and an electric current within a temperature gradient.

The colour scheme is bright, eye-catching, and fresh, and will continue to shape the branding identity for the rest of the project. The selected logo is based on the overlap between the heat that is currently lost, and the proposed technology that will capture and store energy.

There are several variations of the logo available for use, all of which serve different purposes for use.

Brand Guidelines and Templates

Using the logo and project website as a guide, UCC Academy prepared a TRANSLATE Brand Guidelines document, which includes guidelines on colours, fonts, tone of voice, and EU funding acknowledgement.

This is to assist in any external dissemination or communication activities, including social media posts, conference talks or posts, and public engagement events.

Building off these guidelines, UCC Academy has also developed branded templates for the following:

- Presentations
- Conference posters
- Reports, including deliverables to the European Commission
- Social media images

Tone of Voice

UCC Academy worked with the partners to develop a tone of voice for TRANSLATE, including for blogs and social media posts.

In general, our tone of voice for all public TRANSLATE channels is *informative, knowledgeable and engaging*, and never condescending.

We are excited about the potential of this project, we are honest about the realities of cutting-edge research (science doesn't always work the way we expect it to), and clear about the need for this research for the benefit of our environment.

We always try to tell a story and introduce the humans involved in the research. We make it an interesting narrative, with real-life examples, rather than simply a list of facts.



We avoid passive tone of voice whenever possible and describe in an active and enthusiastic manner what has taken place, and who is responsible.

4.2 Project Website

The website development and design was led by UCC Academy, following the TRANSLATE Brand Guidelines.

Several prototype designs were created and reviewed by the consortium at monthly WP4 meetings before the final design was selected. A landing page was launched on July 28th, 2021 and the full website was launched on October 5th, 2021.

A snippet of the website, translate-energy.eu, is shown below.

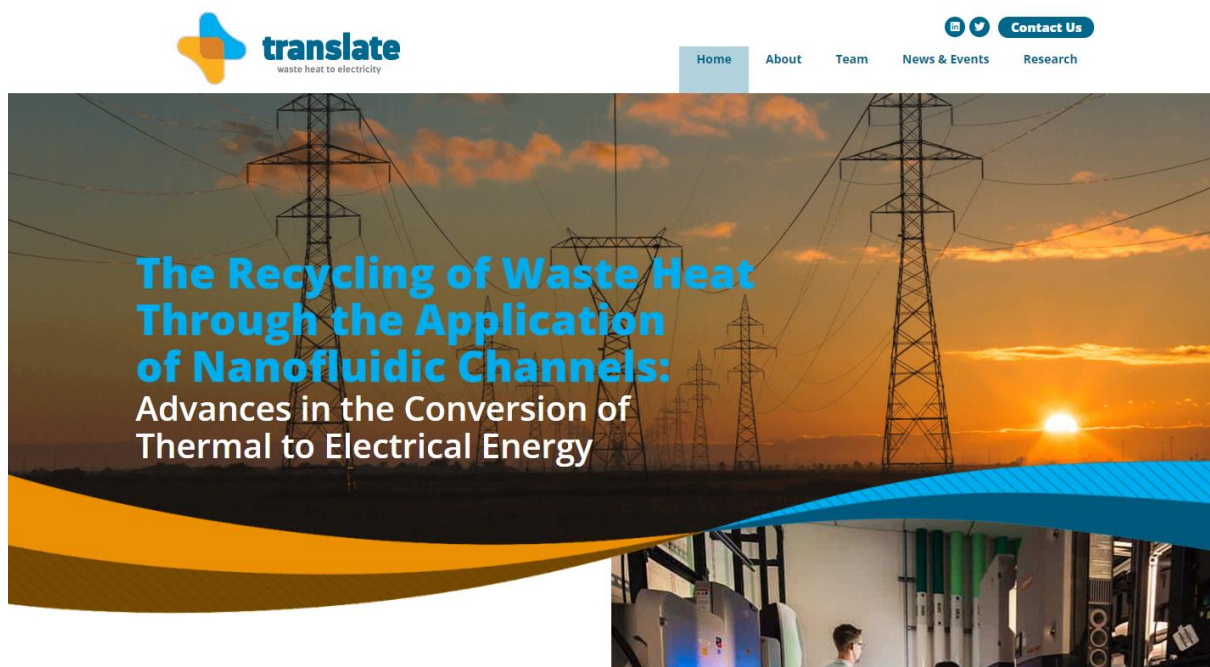
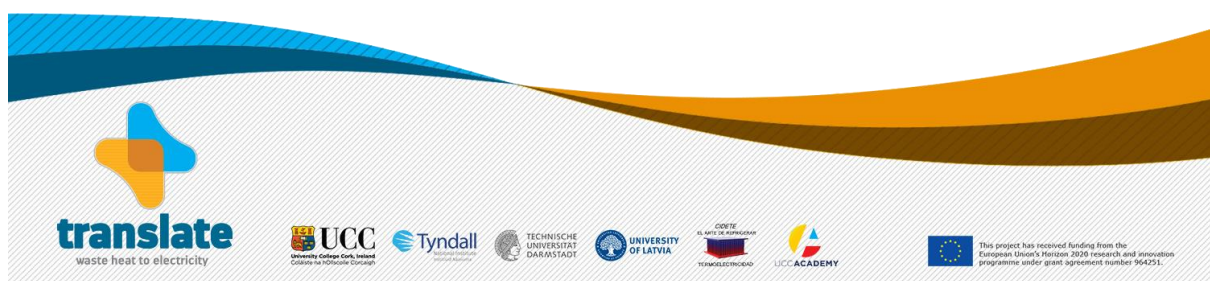


Figure 4 – TRANSLATE website homepage

The website is a resource to find out more about the TRANSLATE project, with content that is relevant, accessible, accurate and up to date, for our key audiences. It includes the following:

- a homepage outlining general project information
- an [About](#) page outlining more information about the project and the research that will be undertaken
- a [project team](#) page giving an overview of all partners in the consortium and their roles



- a [news and events](#) page that will contain information regarding press releases, blogs, and past and upcoming events that TRANSLATE will take part in
- a [Research](#) page giving links to where TRANSLATE publications and associated relevant data will be stored, and information regarding supporting research
- a Contact Us option linked to the TRANSLATE email account, and links to TRANSLATE's social media accounts

On all pages, visitors are encouraged to follow and support our project progress through our social media, blog, newsletter, and contact channels.

UCC Academy is responsible for maintaining and updating the website with engaging and relevant content. As of December 2021, 10 guest blogs and 2 press releases have been published on the website.

Google Analytics is used to monitor website activity. The average engagement time per active user on the website is 7 minutes and 57 seconds. There have been 68 unique visitors to the website. Traffic to the website has primarily come from social media (46%), direct access (24%) and through organic web searches (19%). Most page visitors are based in Ireland (83%).

The activity and content of the website will continue to grow as the project develops, with a particular focus on activities during years 3-4 where project results and future collaborations are expected to be most impactful.

UCC Academy maintains the website with the support of an external website developer, Buchanan Solutions, who provides monthly maintenance and security updates for the duration of the project.

4.3 Social Media

In June 2021, TRANSLATE launched its [Twitter](#) and [LinkedIn](#) accounts. The key purpose of these social media accounts is to raise awareness of the project within existing networks of key audiences, and to direct followers to the website where they can find out more.

Our core audiences have shaped our choice of social media channels. Twitter and LinkedIn were selected as the two channels most likely to reach and engage a research and funding community, as well as future industry users of waste heat capture devices.

A YouTube video summarizing the TRANSLATE project journey was launched on June 30th, 2021, for use on both social media channels and later the project website.



As of May 2022, the TRANSLATE Twitter account has proven to be the more popular of the two social media accounts. The account has 55 followers, primarily from the energy harvesting, clean energy, and environmental sustainability communities. The secondary audience is European environmental agencies and research funders. 18,905 people have engaged with the TRANSLATE Twitter account, defined as liking, sharing, or visiting the profile page.

Twitter is used primarily for networking, finding out about key events, and raising awareness of the TRANSLATE project through regular, relevant, and engaging posts.


The TRANSLATE LinkedIn account has fewer followers than Twitter, with 31 followers as of May 2022. This smaller community reflects the smaller number of active users on LinkedIn, but studies have shown that LinkedIn is by far the best networking site for Business-to-Business engagement. 175 people have engaged with the TRANSLATE LinkedIn account, defined as liking, sharing, or visiting the profile page.

LinkedIn is expected to become an increasingly vibrant community for TRANSLATE in years 3-4, as the nanofluidic platform technology develops into prototypes.

In February 2022, UCC Academy developed a Social Media Toolkit, which contains tips for promoting TRANSLATE on social media and includes sample content for posting.

One of the key purposes of the toolkit is to provide project team members and communication partners from each partner institution with sample content that can be easily shared across social media channels, with the aim of raising awareness and understanding of the TRANSLATE project.

Some of the sample content is shown in Figure 6 below.

Suggested Post	Targeted Audience
<p><INSERT YOUR ORGANISATION'S NAME> are joining 4 other partners to deliver the innovative TRANSLATE project.</p> <p>Our cooperation could lead to a new, highly efficient technology for recycling low-grade waste heat that will have an enormous impact in tackling climate change.</p> <p> https://translate-energy.eu/</p>	All



<p>TRANSLATE is applying @TUDarmstadt's cutting-edge theoretical understanding of how ions move through nanochannels, to create a complete prototype device that can efficiently convert waste heat below 100°C into usable electricity. 🔥🌱⚡</p> <p>👉 https://translate-energy.eu/</p> <p>#TranslateEnergy</p>	All
<p>Generating electricity from low-grade #WasteHeat is a key enabler to meet growing energy demand, whilst reducing our carbon footprint & supporting the realisation of Europe's Green Deal strategy & renewable energy targets for 2030.</p> <p>TRANSLATE will help solve this challenge. 🌱⚡</p>	All
<p>An estimated 70% of the energy we produce is lost through #wasteheat, which is 1 of the largest sources of clean, inexpensive energies available.</p> <p>We're exploring how to use low-cost nanomaterials to convert this #wasteheat into electricity.</p> <p>👉 https://translate-energy.eu/</p> <p>#TranslateEnergy</p>	All
<p>📱 As the market for wireless gadgets grows, we imagine an Internet of Things #IoT powered by the #WasteHeat all around us.</p> <p>⚡ TRANSLATE is building a nanomaterials platform to convert waste heat into usable electricity.</p> <p>🌐 https://translate-energy.eu/</p> <p>#cleanenergy #wasteheatrecovery</p>	All

Figure 5 – Examples of sample content taken from TRANSLATE social media toolkit

4.4 Diagrams

As part of TRANSLATE's communication efforts, two diagrams have been created that show how our device will function.

Figure 6 was developed by project partner Technische Universität Darmstadt. Figure 7 was developed by UCC Academy.



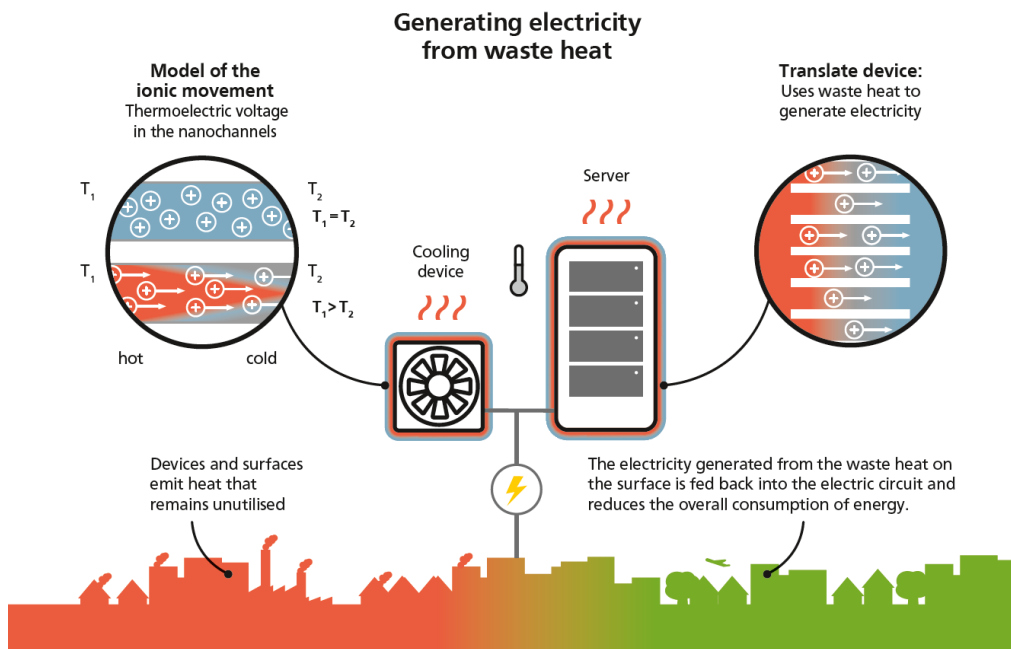


Figure 6 – Developed by Technische Universität Darmstadt

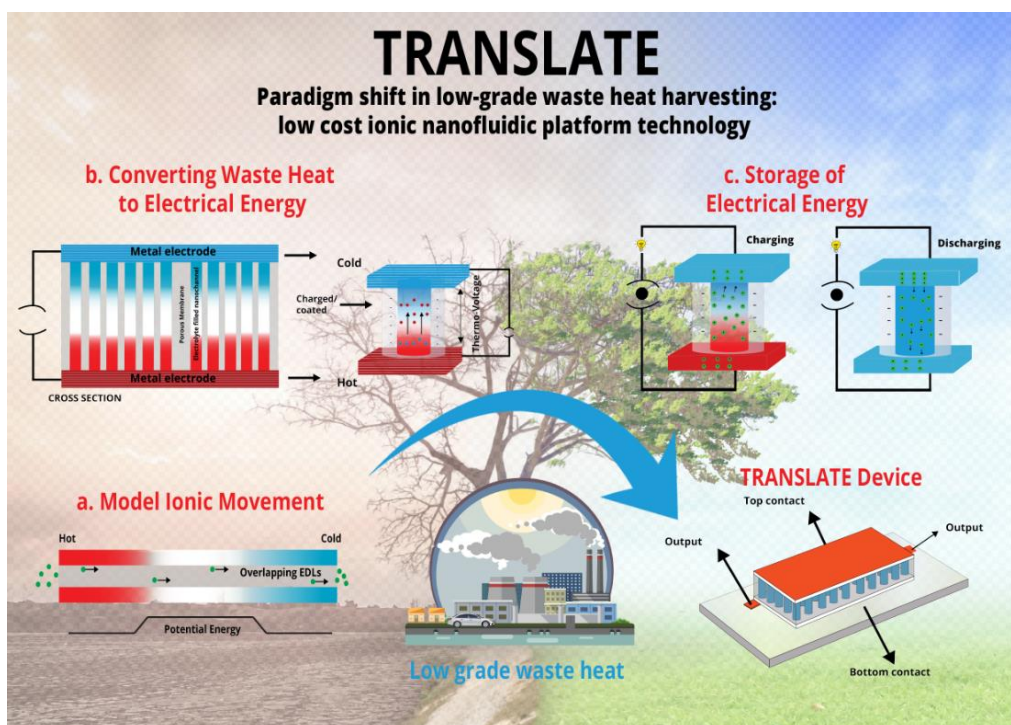


Figure 7 – Developed by UCC Academy

These diagrams enhance our communication content for the website, social media accounts, and conference presentations.

4.5 Public events and social media campaigns

As part of the DEC plan implementation, TRANSLATE has joined several recent public events and social media campaigns in order to raise awareness of the project within environmental research and environmental funding circles:

- **October and November** – Social media posts for UN's Climate Change Conference, Conference of the Parties (COP) 26
- **April 12th, 2022** - Talk about TRANSLATE at UCC's Environmental Research Institute projects showcase event
- **April 22nd, 2022** – Social Media post for Earth Day (#EarthDay)

5. Dissemination activities within the first year

5.1 Open Science Strategy and Data Management Plan

TRANSLATE is committed to Open Research and aims to embed it at every level of the project, in line with TRANSLATE's participation in the European Commission's [Open Research Data Pilot](#) (ORDP).

TRANSLATE's Data Management Plan (DMP) (D4.7) has been developed in line with the European Commission's ORDP. The DMP specifies the project's data handling, accessibility, and preservation in greater detail.

The DMP was led by UCC Academy, in close collaboration with all project partners. It was delivered on-time on November 29th, 2021.

As part of the implementation of the DMP, UCC Academy has set up a project data repository on Zenodo ([TRANSLATE Zenodo repository](#)), as well as a profile page on [OpenAIRE](#). There has been one upload to this repository so far, which was a conference presentation deck.

UCC Academy will ensure that TRANSLATE publications and associated data are uploaded to these repositories on a regular basis and linked to the project website.

Training on Open Research and FAIR data was provided to all project partners on February 10th 2022 in collaboration with the by UCC Library Data Management Officer.

A data management survey was created in March 2022, and each partner provided a response. The aim of the survey was to further understand how each partner manages their data and the types of data created within each institution.



A follow up data management training session was conducted on April 13th, 2022, where refresher training from the February 10th meeting was provided and a README file template for project publication metadata was agreed. Furthermore, a group discussion was held on the data management survey results. The survey results showed that good data management practices are in place for each partner.

5.2 Publications

During the first year, TRANSLATE has not produced any publications. This is as expected for a project of this type. It is expected that publications for the project will begin later in the second year.

5.3 Conferences

During the first year, TRANSLATE researchers presented at one conference. This was on February 3rd, 2022, at the 80th International Scientific Conference of the University of Latvia. The conference abstract and slides are uploaded to the project repository on Zenodo.

The presentation was a collaboration between researchers at UCC (Project Coordinator Prof. Justin Holmes and Dr. Ievgen Nedrygailov) and Technische Universität Darmstadt (Prof. Steffen Hardt and Dr. Satarupa Dutta). The estimated total audience for the conference was 41.

6. Exploitation activities within the first year

6.1 EIC Portfolio

TRANSLATE has joined the EIC 'Energy harvesting, conversion & recovery' portfolio, and is awaiting updates from the EU programme managers on networking events with other similar EU projects.

6.2 Appointment of external advisor, Colm Glynn, Analog Devices International (ADI)

In December 2021, Dr Colm Glynn from Analog Devices International (ADI) was appointed external advisor to the project. Colm manages ADI's internal Thermoelectric Generator (TEG) projects and has a strong market knowledge.



Colm will join the project's General Assembly meeting which takes places on June 8th – 10th 2022 and will advise TRANSLATE of commercial opportunities at the Executive Board meeting on June 9th.

6.3 Meeting with Ardmore Shipping

International shipping company, Ardmore Shipping discovered the TRANSLATE project on Twitter and LinkedIn and were interested in whether TRANSLATE's device could be utilised on board their vessels.

A meeting took place between Ardmore Shipping and members of the TRANSLATE project on March 1st 2022. Ardmore Shipping were interested in the research being conducted in TRANSLATE, but they are currently focused on capturing high grade waste heat on board their vessels and TRANSLATE's device is unlikely to be useful on board.

