

Galway Bay is Calling is a collaborative project between Music for Galway, Galway Atlantaquaria and the Atlantic Technological University. It was funded through the Creative Climate Action Fund, an initiative that is managed by Creative Ireland. This project was funded through the Spark Stream, by the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media and the Department of the Environment, Climate and Communication.













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#### **Foreword**

Galway Bay is Calling is the result of a meeting of minds between Dr Maria Vittoria Marra of Galway Atlantaquaria (GA) and Anna Lardi, CEO of Music for Galway (MfG). When Anna Lardi and Garry Kendellen of GA met at a networking event, they started talking about music & marine life. Garry spoke about his colleague Maria Vittoria and her love of Music. He felt that Anna and Maria Vittoria had both been on a parallel path: they were looking for ways of harnessing the power of music in order to spread the message about the fragility of the balance of climate, ocean and people. He decided to introduce them to each other.

The power of networking and opportunity is a potent mix indeed.

When the two met, Maria Vittoria already had co-created songs that were themed around the ocean with a group of pier musicians, namely the songwriter Sean McGrath and the local amateur ensemble Galway Ukers. She felt at that stage that there was more potential in this approach. Meanwhile, Anna had embarked on a Creative Europe Cooperation Project called Songs of Travel (SOT) that had at its core the aim to use newly commissioned music and its presentation to increase empathy of all stakeholders for two issues: climate change and migration. Anna felt that in SOT one component was missing: that of the active engagement and participation of the community.

In a very creative meeting, the sparks literally flew, and the concept for *Galway Bay is Calling* was born. Full of enthusiasm, Anna and Maria Vittoria took leave of one another promising that they would watch out for funding to make this project a reality. Weeks later, the opportunity came in the form of the Creative Ireland Climate Action Call II for submissions to the Spark fund.

At this point, it became clear that further expertise was needed, especially when it came to the monitoring of behavioural change. Dr João Frias from the Atlantic Technological University (ATU) was brought on board, a marine specialist with expertise in plastic pollution and community engagement, which was ideal for tracking behavioural change.

The Galway Bay is Calling core team, composed of Dr Maria Vittoria Marra and Garry Kendellen of GA, Dr João Frias of ATU, and Anna Lardi of MfG, submitted an application that proved successful. And so the journey began...



### **Executive summary**

**Hope** — defined by the Merriam-Webster Dictionary as both a noun and a verb — reflects a desire for something to happen or become true, often coupled with an expectation of fulfilment. Typically, hope transcends individual interests, embodying aspirations for something larger than ourselves. It can be personal or, based on one's empathy, involvement, and dedication, directed toward a collective future. Hope is the foundation of *Galway Bay is Calling*, a community initiative merging music with scientific insights to foster Ocean Literacy and sustainability in Galway. This report details the project's journey: from interactive outdoor and indoor workshops, through the creation and refinement of a musical composition, to community performances that brought it to life, sharing it with the community at large.

Quantitative and qualitative data were gathered to assess participants' evolving perceptions, guide workshop content, and gauge the project's impact on their lives. Findings show that 100% of survey respondents reported increased ocean knowledge. This was evident in reduced variability in answers and higher accuracy rates. A focus group further identified knowledge gaps and revealed that 65% of participants held a positive view of the project.

Naomi Berrill, the composer behind *Leave No Trace*, the original piece created for the project, joined all three workshops and engaged in dialogues with the musicians to craft a song of hope for the future. Her composition captures the rhythms of the ocean, from raindrops above to the sands shifting on the shore. It explores the moon's influence on the tides and the urgent need to safeguard the ocean from mounting threats. We hope this initiative ignites a community of practice empowered to protect the ocean.

In Naomi's words, "Hope is a little boy who takes care, knowing that to share this beauty, he must leave no trace — only his footsteps in the sand." Through this project and this song, we aspire to inspire others to become ocean stewards.

In fact, a direct impact of this social art project is the empowerment of the local communities to think global and act local. The indirect impact will be long-term changes in the participants' behaviour due to an increased environmental consciousness in their daily lives, particularly in terms of reduction of single-use items and energy efficiency, with the opportunity to act as climate action ambassadors in their neighbourhoods.



### 2. Introduction

Galway Bay is central to the life of the many people living along its coast: they identify with the bay, visit it for recreation, solace, and leisure. However, as the rest of the ocean of which it is part, Galway Bay is under pressure due to the rapid variations caused by climate change, whose impacts are still not fully known. In fact, as a result of the absorption of greenhouse gases produced by human activities, the temperature of the ocean is rapidly increasing, and this, in turn, affects the distribution of marine organisms due to the shrinkage of habitats for many temperature-sensitive species, and ultimately affects the local economy. Moreover, the increased temperature of the ocean is reducing the solubility of the oxygen in the water, whereas the continuous absorption of carbon dioxide is making the ocean more acidic. These physicochemical changes have consequences that scientists are only now starting to explore and understand. Many of these consequences are expected to have devastating effects on the marine communities.

Additional predictions highlight that climate change consequences on land will have significant effects on the ocean. For example, warming of the atmosphere is causing ice caps to melt, which is expected to determine sea level to rise more than 10 cm globally by 2030, with significant socio-economic and environmental consequences, particularly to coastal areas with high population density. Additionally, more frequent extreme weather events cause floods and disruptive swells that have serious impacts on coastal communities.

Therefore, the worrying effects of climate change on the ocean described above represent a serious topic of concern for Galway Bay, as well as for the rest of a country like Ireland, where over 40% of the population lives within 5 km of the coastline, as highlighted by the results of the Census 2016.

Adaptation to the consequences of climate change is probably at this stage more important than mitigation of its effects, but a major obstacle to that is the lack of general awareness of climate change risks. Moreover, feelings of anxiety, powerlessness and lack of motivation hinder individuals to make the necessary lifestyle changes to tackle the environmental and social consequences of climate change at a local level.

There is a body of literature showing that music is an effective method of teaching young children, but it is rarely used with adults. However, there is evidence that complex science concepts can be taught to adults via songs and songwriting, which also empowers them to contribute to decision-making processes. Additionally, the beneficial power of music on mood and mental health has long been proven. MfG has been exploring whether this power can also be harnessed in order to communicate, educate and inspire climate action and behaviour change through Cellissimo (<a href="https://cellissimo.ie/">https://cellissimo.ie/</a>), the second edition of a triennial international cello festival organised by MfG that was held in May 2024.



An important strand to Cellissimo 2024 were outputs of the Creative Europe Cooperation project Songs of Travel (SOT, <a href="https://www.songsoftravel.eu/">https://www.songsoftravel.eu/</a>) of which MfG is the lead partner. This SOT project (running from 2022 to 2025) aims to present newly commissioned music in such a way that promotes behavioural change with regard to climate change and to increase empathy towards people in migration. Four festivals across Europe and an interactive game development company in Austria are partnering in this project and part of the outcomes will include a green policy for similar festivals and scientifically measured achievements in terms of carbon footprint, behavioural changes and attitudes. Galway Bay is Calling was designed to be a sibling project of SOT, and therefore also be part of Cellissimo 2024.

The aim of *Galway Bay is Calling* is to promote Ocean Literacy and climate action through music in order to raise awareness of the impacts of climate change in Galway Bay, while enabling citizens to become climate ambassadors and agents of change. To do so, MfG teamed up with GA and ATU to increase the Ocean Literacy of local amateur musicians, not only with a view to strengthen their awareness of human impacts upon the ocean and its impacts upon us, but also to provide them with tools and approaches to transform ocean knowledge into behaviours and actions that promote ocean sustainability.

The purpose of the initiative was to establish communities of practice where participants become agents of change at the local level, inspiring others through music. In fact, *Galway Bay is Calling* is an example of social art, as all ensembles involved are amateur and part of the local communities located around Galway Bay. It was expected that their participation in the co-development of the outputs of the project would have strengthened their ownership of the results achieved as well as their sense of belonging to the community, making it ultimately more likely that the participants will continue to be active change agents (as highlighted in the One Drop Foundation 2021 Impact report).

To ensure engagement and impact, MfG commissioned the internationally renowned cellist/vocalist/composer Naomi Berrill, originally from Headford (Co. Galway) and currently based in Florence (Italy), to work with three community ensembles (a choir, a string orchestra and a jam group) to compose an original music piece informed by Ocean Literacy, and curate a climate action concert, scheduled for the opening day of Cellissimo 2024, May 18th. Through the inclusion of *Galway Bay is Calling* in Cellissimo 2024, the project was expected to benefit in terms of publicity and shared resources with the festival.

The first phase of *Galway Bay is Calling* took place in autumn 2023, and aimed at inspiring the project participants and the composer Naomi Berrill through a series of workshops organised by GA and ATU, namely a rockpool experience (September), a tour of GA focused on the seven principles of Ocean Literacy (October) and a behavioural change workshop (November).

All the learnings and sensations seeded in the project participants by their interactions with the Ocean Literacy and behaviour change experts at GA and ATU were then harnessed by Naomi Berrill, who discussed the ocean experiences with each of the ensembles involved at the places and times of their own rehearsals in order to start the co-development process in November 2023.



Following those engagements, Naomi travelled back to Italy and worked for four months to combine all the inputs from her own experience with the workshops held by GA and ATU and the meetings with the participants to write the original music composition for solo cello, vocal and instrumental ensembles.

Naomi decided to name the original composition *Leave No Trace*, and once it was ready in mid-March 2024, she sent the individual parts of its score to the three ensembles for them to learn and practise them.

Meanwhile, one focus group session was carried out with selected ensemble participants, to assess project progress and perceptions. This focus group allowed the project team to get feedback from the participants. This was useful to design the next stages of the project, including the rehearsals and the public engagement activities around the premiere of the original composition.

A week before the performance of *Leave No Trace* during the first concert of Cellissimo 2024, Naomi met once again with all the music groups to rehearse the original composition. A total of three rehearsals were led by conductor Matthew Berrill over the week. On May 18th at 1pm, *Leave No Trace* was premiered in Leisureland (Salthill, Galway) in front of over 200 attendees at the end of a one-hour concert which also gave the ensembles involved in the project the opportunity to perform separately their own repertoire.

In order to broaden the project engagement and sustain the participants' commitment, a further public engagement event including performances of the three ensembles involved in the project was originally planned for Culture Night 2024 on September 20th in the premises of GA. However, on the wave of the enthusiasm generated by the concert in Leisureland, the group was invited by the Galway City Council's Climate Action team to perform *Leave No Trace* as part of the Galway Climate Inspirations Festival on September 14<sup>th</sup>. That was felt by the project organisers as a fantastic opportunity to spread awareness about the intentions of *Galway Bay is Calling*, and further to increase the impact of the project. This second performance at the Galway Climate Inspirations Festival marked the official end of the project.

Moreover, to promote a "cascade effect" and expand the legacy of *Galway Bay is Calling, Leave No Trace* will be used as part of the ATU and GA's partnership Waves of Change, a project funded by the Marine Institute to promote sustainable development and behaviour change through Ocean Literacy. To do so, small clips of the original piece will be used as soundtrack for a short video contest among secondary school students with the idea of using videography to promote original sustainability messages and ensure that potential climate ambassadors continue their advocacy work beyond the conclusion of this project.



### 3. Outline of team

The organising team was composed by Anna Lardi (CEO of MfG), Dr Maria Vittoria Marra (GA), Dr João Frias (ATU), and Garry Kendellen (GA).

The team included:

Naomi Berrill, cellist and composer of *Leave No Trace* Matthew Berrill, conductor

Community music leaders:

Hugh Kelly - Galway Camerata

This group of adult string players comes from the Galway Strings, an amateur string orchestra.

Sean McGrath - Galway Jam Circle

An eclectic group of mostly self-taught musicians who love to improvise solos on simple three- of four-chord songs.

Lorna Salmon - The Voice of Galway

This is a relatively young community choir that formed in early 2023. The emphasis is on the enjoyment of singing together.



### 4. Outputs & Outcomes

#### 4.1 Three Ocean Literacy Workshops with participants from choir and music ensembles

The project began with a rockpool experience in September, 2023. The participants of each ensemble were guided by Garry Kendellen who showcased the biodiversity that can be found at low tide in the rockpools of Grattan Beach (Salthill, Galway). The rockpool experience was a great opportunity for the groups to socialise in a unique environment, learn about biodiversity, adaptations, habitat, climate change, bioindicator species, symbioses, marine litter, beach cleans, dune restoration, and wellbeing by the sea.

The following month, the musicians learned the principles of Ocean Literacy through a comprehensive and interactive tour of GA, the largest native species aquarium in Ireland, conducted by Maria Vittoria Marra. The tour consisted of the exploration of the two dimensions of the 'ocean and us' (i. e. the ecosystem services provided from the ocean), before moving onto 'us and the ocean' (i. e. the impact of humans on the ocean). By focusing on the diversity of the native species in Galway Bay showcased in the various exhibits of the aquarium, the project participants could explore specific examples of the interconnectedness of human and ocean life, both from positive and negative perspectives.

Finally, the participants joined Dr. João Frias for a workshop designed under conceptual and cultural shift approaches, that explored pressures of human activities on the ocean, with a focus on solutions that allow participants to actively change attitude and behaviour in relation to environmental problems. The aim was to enhance connectivity, link the topics with the rockpool experience and the Ocean Literacy tour of the aquarium, while building a cohesive network of musicians and performers that can be local climate change champions. Perception surveys were carried out at the start and after interventions, to assess effectiveness of information shared.

## 4.2 Artistic reflection in rehearsals of each ensemble led by cellist/composer/vocalist Naomi Berrill and start of co-creation of music piece

In November 2023, Naomi met the three ensembles individually at the places and times of their own rehearsals to exchange ideas about what everyone had learned after taking part in the workshops over the previous weeks, what the project participants thought were the most important learnings to consider for the composition, what is their own connection with the ocean, and how all these elements could be translated into music.



#### 4.3 Leave No Trace - for cello/voice and 'mixed bag orchestra' by Naomi Berrill

After four months of intense creative work, Naomi Berrill completed *Leave No Trace*, a fifteen-minute composition which elevated the concept of "mixed bag orchestra" beyond any possible expectation. In fact, it was not an easy task for Naomi to create a composition that could bring together and amalgamate all the singers and musicians with their own different skills, levels of musical training and instruments, but *Leave No Trace* is the clear evidence of the fact that she succeeded in doing that.

#### 4.4 Concert on opening day of Cellissimo

The concert organised to premiere *Leave No Trace* took place on Saturday the 18th of May 2024 at 1pm, on the very first day of the Cellissimo 2024 festival. Besides the premiere of the original composition, two of three music ensembles involved in the project, namely Voice of Galway and the Galway Jam Circle, had an opportunity to perform some songs from their own repertoire. The concert was attended by 212 people.

#### 4.5 Video and sound recording of the piece

The entire premiere of Leave No Trace was recorded and then published on YouTube on the 30th of August on the MfG channel.

#### Leave No Trace by Naomi Berril

#### 4.6 Waves of Change video contest.

This video contest was launched on the 1st of September 2024 and it will use small sound clips from *Leave No Trace* to explore three main topics related to Ocean Literacy: 1) biodiversity loss, 2) climate change and 3) ocean pollution. More details available at <a href="https://www.wavesofchange.net/call-4-schools">https://www.wavesofchange.net/call-4-schools</a>.

#### 4.7 Vignettes

Vignettes pinpointing the main milestones of *Galway Bay is Calling* were posted on the social media of the three main project partners throughout the project. A list of links to these vignettes is included in the Appendix to this report.

# 4.8 Months following the performance: the music groups perform at the GA as part of public engagement events organised in key dates as e.g. World Ocean Day

On September 11th, the project participants gathered once again to rehearse for a further performance of *Leave No Trace*. This took place as part of Galways' inaugural Climate Inspiration Festival on Saturday September 14th. The performance was staged in the more

### Leave No Trace - Naomi Berrill

#### Commissioned by

Music for Galway, Galway Atlantaquaria and Atlantic Technological University for Galway Bay is Calling

with funds from Creative Climate Action, administered by the Creative Ireland Programme funded by the Department of Tourism, Culture, Arts, Sports and Media in collaboration with the Department of Environment, Climate and Communications.

#### Leave No Trace



intimate setting of St. Augustine Church and turned out to be a beautiful ending to the project.

Tiarnan McCusker (Galway City Council) commented on this concert saying: "Galway City Council's Climate Action team had the pleasure of working with Music for Galway and Cellissimo for the inaugural Climate Inspirations Festival in September 2024. "Galway Bay is calling" is a collaborative community project that Music for Galway ran in partnership with the Galway Atlantaquaria and Atlantic Technological University. It was performed live in the St. Augustine church and was a key event in the 3-day festival. It was an inspirational performance that fitted well into the themes of art, culture and climate action and added an extra dimension to the festival". More information about the festival can be found at <a href="https://galwayclimatefestival.ie/galway-bay-is-calling">https://galwayclimatefestival.ie/galway-bay-is-calling</a>.

#### 4.9 Short documentary telling the story of the project.

The documentary produced follows the story of *Galway Bay is Calling* and will continue to contribute to its legacy by spreading the word about the original approach of the project, whose novelty was to promote Ocean Literacy and behaviour change through music in a country like Ireland, where music is a fundamental cultural asset. See the documentary here: <a href="https://youtu.be/Eu27S">https://youtu.be/Eu27S</a> 96RfY.

#### **4.10 Presentations/Conferences**

Galway Bay is Calling has been presented by various members of the core team at a number of conferences in Ireland and abroad:

- Reach '24 Arts & Sustainability Festival at Queens University in Belfast (18-20th April 2024), People, Place, Arts & Engagement
- Micro Lanzarote island (Spain). Plenary talk on the 26th September 2024.
- <u>European Marine Science Educators Association Conference</u>, Zadar (Croatia), 23-26 September 2024, Ocean Literacy Beyond Natural Sciences.
- CommOCEAN 2024, Malaga (Spain), 26-27 November 2024, Session 8 Sound & Vision.



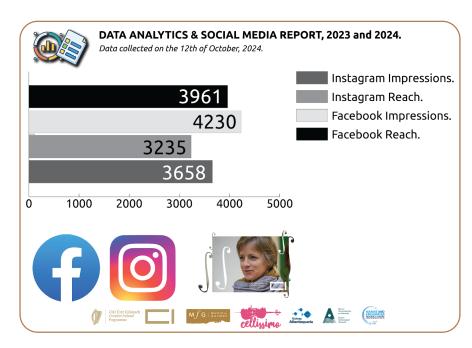
### **5. Public Engagement outcomes**

#### **Media Coverage**

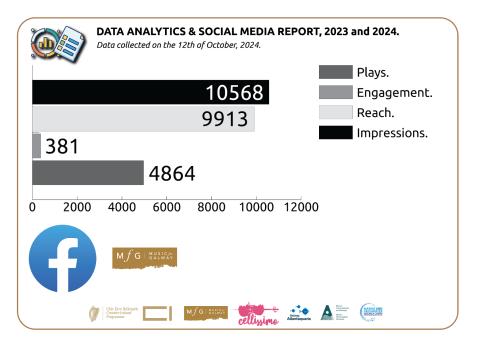
Galway Bay is Calling has received coverage in local, national and international media on radio, press and online. The project coverage included Journal of Music, City Tribune, Galway Bay FM, Hot Press, BBC Radio Ulster, Tuam Herald, Business Post.

#### **Social Media Data Report**

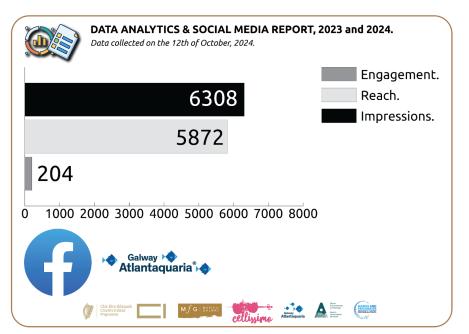
Over the lifetime of *Galway Bay is Calling* it reached an estimated 51,758 - People. To follow a sample selection of data compiled over 2023 and 2024.



Data from Naomi Berrill's Social Media



Music for Galway Facebook



DATA ANALYTICS & SOCIAL MEDIA REPORT, 2023 and 2024.

Data collected on the 12th of October, 2024.

Instagram Plays.

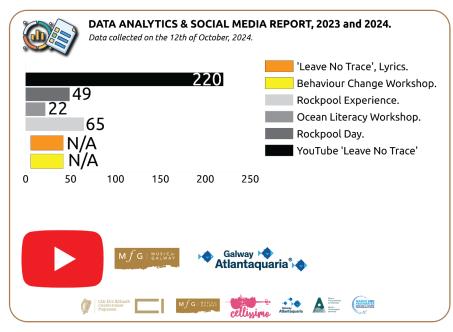
Instagram Reach.

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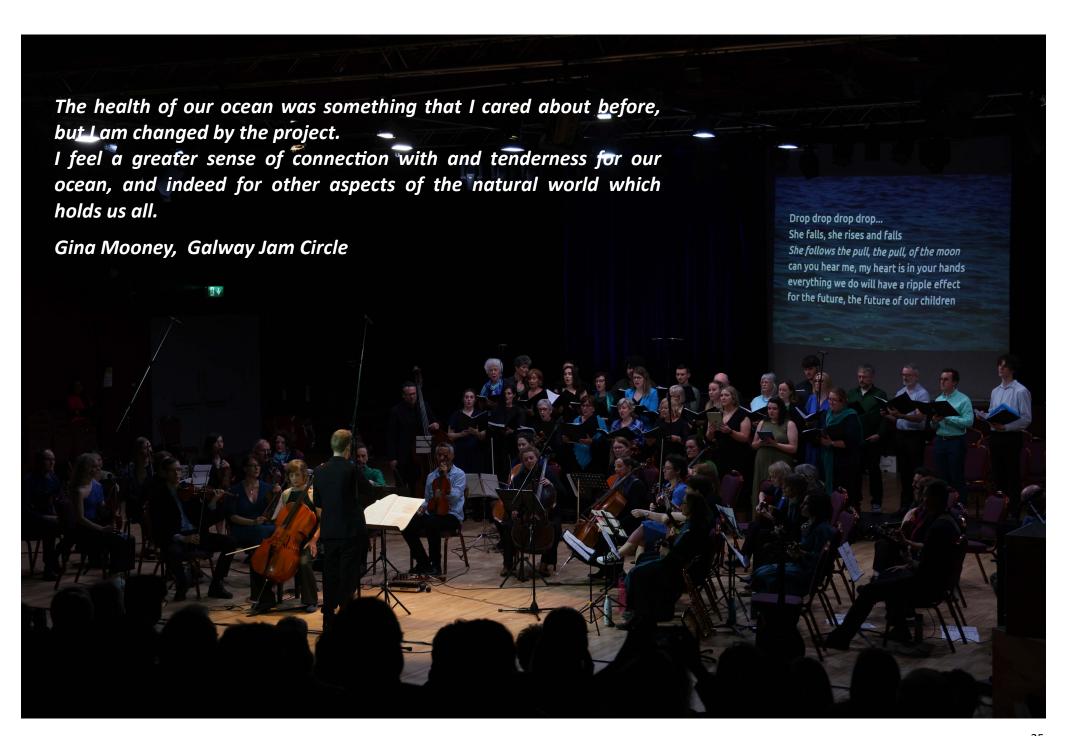
0 3000 6000 9000 12000 15000

Galway Atlantaquaria Facebook

Music for Galway Instagram



Youtube videos from the project on the MfG channel.



### 6. A summary of the Project evaluation

#### **Community | Ocean Literacy | Sustainability**

#### **6.1 Community**

Three ensembles of amateur musicians and singers in the local community were selected to be part of *Galway Bay is Calling*. The three groups differ from each other in style of music, practice and performance. They have in common the same love for music - and not necessarily an interest in Ocean Literacy or climate change. The idea behind the project was to use their love of music to motivate them, with the promise of the co-creation of this new work and its performance, to engage with Ocean Literacy.

Two perception surveys on diverse aspects of Ocean Literacy were carried out to understand changes over time in the group of participants as to their knowledge and commitment to taking on more ocean-friendly behaviours. While conducting the surveys, questions to assess general demographics, focusing on age, education and gender were also asked. The average profile of musician/singer participating in the project is female with a bachelor degree, between 45 and 54 years old. In terms of demographics, 73% of the participants identified as female, 50% had a bachelor degree and the main age groups were 35-44 (23%), 55-64 (27%), and 45-54 (31%).

For the project core team, the main learning was that <u>leadership</u> and <u>communication</u> are key while dealing with community groups over a relatively long span of time (this was a one-year project). In fact, during the initial phase of the project, issues caused by clashes with the participants' schedule, confusion of project goals and lack of clarity on calendar activities, were met. Some of these clashes led to a motivation loss by some project participants at early stages, and can be traced back to confusion between the project core team and the leaders of the three ensembles in the initial planning of the project activities. However, it is equally interesting to notice that it was the original passion for music that brought the group together again: once the first rehearsal had taken place, the initial enthusiasm was fully reignited. This shows the challenge of working with a community that is not primarily interested in what was the real focus of the project, i. e. Ocean Literacy and climate action. Still, the overall outcome of the project, as seen in the questionnaires and feedback received, is that the project participants were significantly influenced by their participation in *Galway Bay is Calling* and they will hopefully become like pebbles thrown into water, sending ripples of awareness through their communities.

### **6.2 Ocean Literacy**

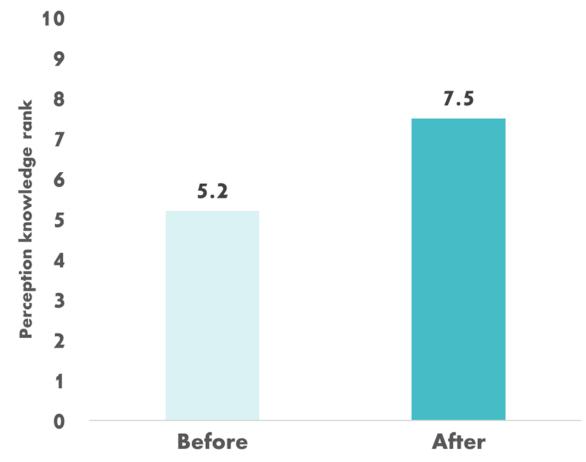


The project evaluation was carried out using a set of diverse methodologies that included surveys before the rockpool in Grattan beach and after the behaviour change workshop. A focus group and a 1:1 interview were also carried with selected individuals of the three community groups. The first survey consisted of 35 questions to assess the perceptions of each participant and explored a diversity of topics linking to Ocean Literacy, including biodiversity and ocean pressures by human activities. The intention of the surveys was to assess perceptions, and how these would change over time.

The expectation was to see whether the correct answer (which is marked in the stronger and/or contrasting colour in the plots over the following pages), increased in percentage over time/intervention. Also, a reduction of answer variability (e.g.  $5 \rightarrow 3$ ) represents a positive aspect of learning acquisition. Therefore, when the number of answers is reduced and the percentage of correct answers increases, it means that the participants were actively engaged and learning through the experience.

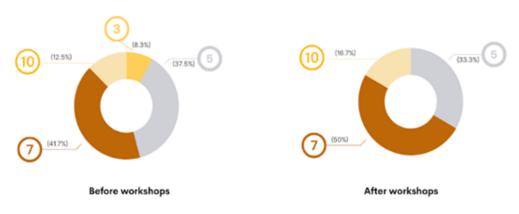
Because the first survey was carried out prior to the rock pool workshop and the Ocean Literacy tour of the aquarium, we were not expecting the participants to have more than general knowledge about Ocean Literacy or pressures on the ocean.

Participants were also asked perception questions about a series of marine pollution and ocean conservation topics. One of the initial questions on both surveys was how they would rank their knowledge about the ocean on a scale from zero to ten, being zero the least knowledgeable and ten knowing almost everything about the ocean. In the survey carried out before the workshops, the average ranking of the participants was 5.2, while after the workshops, this value increased to 7.5, showing a 44% increase in participant's awareness of what they learned about the ocean after the workshops.



This increase in awareness is reflected in other parts of the survey, such as the number of Ocean Literacy principles, whose results experienced an increase in percentage of the correct answer, and a reduction of answer variability, without statistically significant differences.

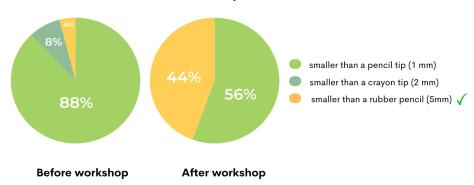
#### How many ocean literacy principles are there?



Although the focus of the surveys was the participants, there are important lessons to be taken from the design of the workshop themselves. This was particularly clear to questions on how small microplastics are, as results show a drastic increase in perception, and assimilation of information before and after workshop. The correct answer is marked with a tick in the image below.

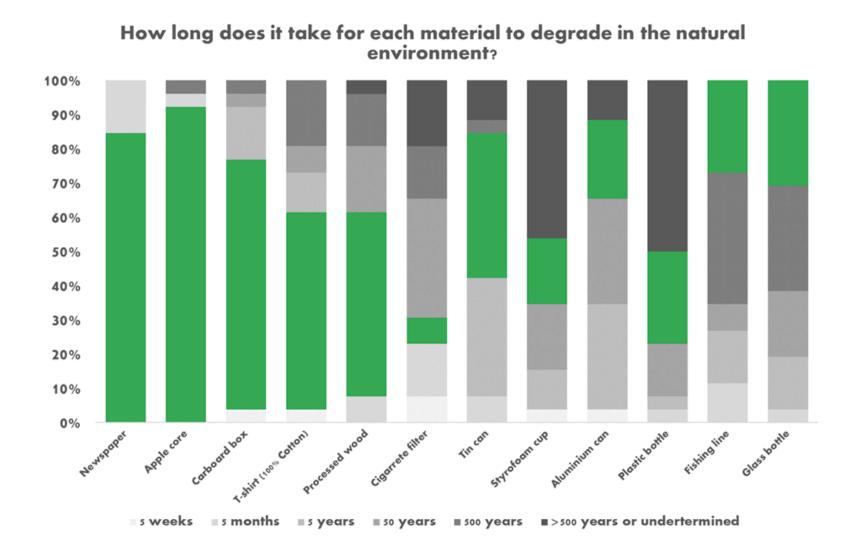
Given that the workshops focussed on diverse aspects of Ocean Literacy, both the survey and the mentions to the numeric

#### How small are microplastics?



answers in the behaviour change workshop focussed on numbers and concepts, it is not surprising the difference in knowledge before and after the workshops.

Prior to the behaviour change workshop, participants were asked about how long it would take for materials to degrade under environmental conditions. In the following plot, the correct answers are marked in green, where other options represent a gradient of grey colours that expresses time in the environment (e.g. the darker the shade, the longer the time). Five out of the twelve options provided, namely fishing line, apple core, glass bottle, newspaper and styrofoam cup, had high percentages, which means participants are aware of how long these would take in the environment. One of the exercises in the behaviour change workshop was to order items according to the time they last in the environment followed by a Q&A, to ensure participants were aware of the correct answers.



This is particularly clear in the answers provided by participants. In the figure, the items are already organised from left to right, on items that take less time to items that take more time to degrade under natural conditions, based on data from the National Oceanic and Atmospheric Administration (NOAA). The correct answers are marked in green. Participant's answers, marked by the length of the green bars, show that participants have a general understanding of how long each material type will take to degrade in the environment. Perceptions were lower for cigarette filters, styrofoam cups, fishing line and glass bottles.

#### Perceptions on responsibilities 15 21.26 10 5 0 -12.55-5 -3.04-6.28-10 -3.85-15 -7.89-20 -22.67 -25 -30 -35 -11.54-40 Aquaculture industries Fishing industries Plastic manufacturing industry Port authorities Shipping industries Supermarkets and other retailers Waste managers Fracking and mining industry Gas Industry Individual citizens Non-governmental organisations Oil industry Plastic recycling industry Coal industry ■ Increase ■ Decrease ■ Total

When asked about who is responsible for dealing with environmental problems, the top three answers before and after interventions were the same, and the stakeholders selected were:

- A. Governments,
- B. Plastic manufacturing industry and
- C. individual citizens.

Looking further into these results, a slight increase in perception of responsibilities of the top three answers was observed before and after workshops, ranging between 3.85 and 21.26%. An increase in responsibility of the shipping industry (24.29%) was also observed, which is probably linked to examples of maritime traffic and online commerce shown during the behaviour change workshop. Interestingly, decreases in responsibility perception were observed for aquaculture industries, fishing industries, port authorities, plastic recycling industry and non-governmental organisations, with the highest decrease noted for the plastic recycling industry (22.67%).

The changes in responses show that perceptions can change with information, and that surveys and workshops are important to understand effectiveness of the project towards the participants who are directly involved in the knowledge sharing, but also in the teaching and learning processes.



In March 2024, a focus group was carried out with selected individuals of each of the three groups. For this specific meeting, the project core team met with Dr Alexandra Revez from MaREI, University College Cork, to seek expert advice on how to devise the focus group in order to gather the most information possible. This was done to validate the selected methodology and to have scientific insight into how to proceed the analysis. The focus group involved three sets of questions (engagement, exploratory and exit), that were designed to assess whether the participants were having good or bad experiences and what could be improved for this project. The questions were:

| Engagement   | Exploratory  | Exit   |
|--|--|--|
| 1. What comes to mind when you hear Galway Bay is Calling? 2. What does this project represent to you? | 3. Was the engagement and information processes clear?  4. Did you feel welcomed in the interactions with the project team?  5. What challenges have you faced in the project?  6. What impact will this project have on local communities | 7. What would you improve about the project? 8. What have you learned with this project? Is there something you want to share with others? |

Overall, the focus group reported positive feedback (65%) from the workshops and engagement with the project team., with 22% neutral and 13% negative reactions.

The table below highlights the main conclusions from the focus group, based on the most common answers to each of the different questions, which informed how the project advanced after March 2024.

### **Engagement**

**Exploratory** 

- What comes to mind when you hear Galway Bay is Calling?
- What does this project represent to you?

- Was the engagement and information processes clear?
- Did you feel welcomed in the interactions with the project team?
- What challenges have you faced in the project?
- What impact will this project have on local communities

### **Exploratory**

**Engagement** 

**Music and Community** 

relationship between music and the ocean

Engagements enjoyable and thoughtful, gaps between workshops were long

Collaboration, networking, an opportunity to explore the

- Always very welcome.
- A lot of information during rockpool, but knowing the species names is less important than knowing they are all special
- Hopefully bring some information and awareness about the ocean and the life in Galway Bay, connecting to their individual capacity to have an impact

#### **Exit** Exit

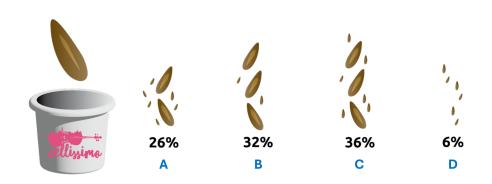
- What would you improve about the project?
- What have you learned with this project? Is there something you want to share with others?
- Perhaps have an activity with all the groups to listen to the sounds of the ocean, for example a meditation at the beach or other activity to feel the connection with the ocean. Also more time to interact with the composer
- The hidden biodiversity. The global environmental challenges. Definitely the importance of the ocean and our connection with it!

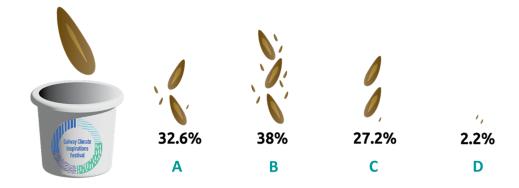


### **6.3 Sustainability**

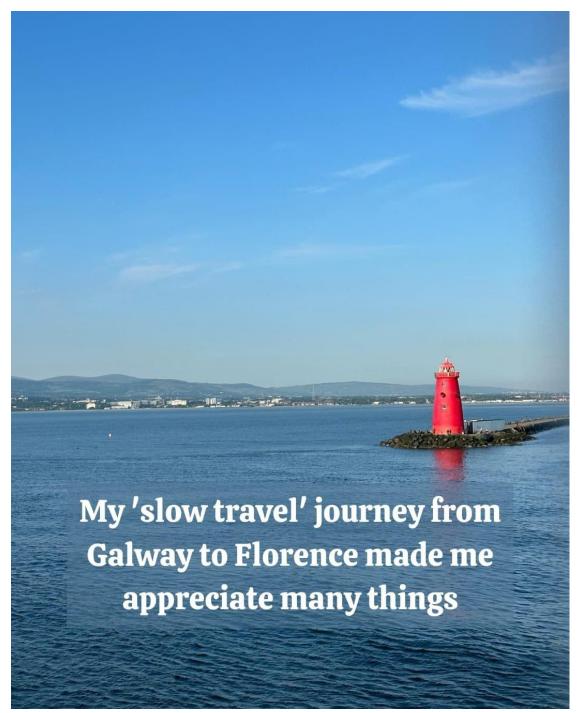
One additional aspect of our analysis was the audience commitment survey. Immediately after each of the live performances, the audience was surveyed using a social sciences approach where they were to grab a bean and introduce it in one of four buckets labelled with different commitments. The four options given were

- A) I will try to reduce food waste in my home;
- B) I am going to visit the beach more often and care for it;
- C) I will avoid single-use items: plastics and biodegradables;
- D) I will not make any changes in my behaviour.





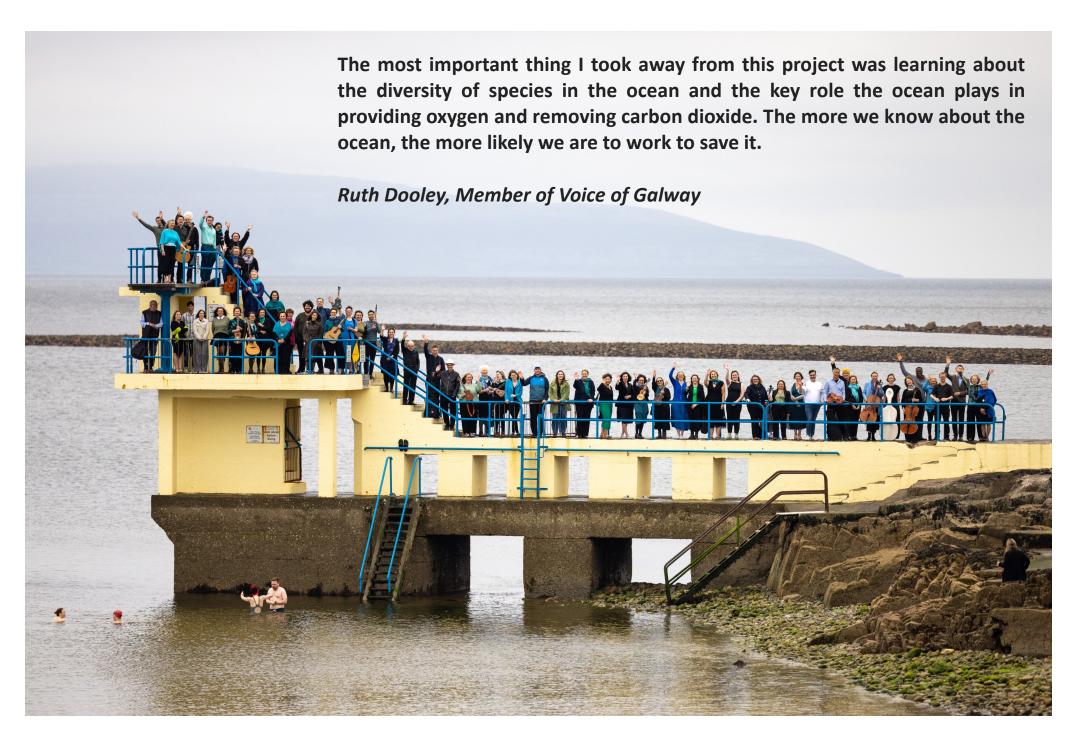
Percentages of commitment are relatively similar between both concerts, and show differences based on the audience attending. The Cellissimo premiere (n = 216) highlights that more people committed to avoiding single use items, while the concert at the Galway Climate Inspirations Festival (n = 73) shows that more people committed to visiting the beach more often and caring for it. Given that this survey was carried out not as a paper survey, but rather as a reflection and physical action from each individual, chances for people to uphold their commitment are more likely to happen.



One final aspect of the sustainability values of the project is that they are aligned with the green commitments that MfG established for the Cellissimo Festival. These ambitious commitments, not only towards the festival, but to the *Galway Bay is Calling* project itself, range from travel to food and accommodation, and ensured that not only the project advocated for sustainable development values, but actually put them in practice.

From the analysis of the results of the surveys and focus group, it emerged that some participants often mention the time spent with the composer of the piece, describing it as limited. This has to do with the fact that Naomi resides in Italy: in fact, to honour the travel and transport green commitments of the festival of slow travelling, she did not take an aeroplane to avoid carbon emissions, therefore she had to limit her visits to Galway throughout the project. However, while documenting her travel back home after the festival, Naomi mentions how slow travel allowed her to connect with friends along the way, as well as attend unexpected music and cultural events that, if she had travelled by air, she would never have been aware of.

An important reflection to our daily lives can be taken here: which is more important, velocity or direction?



# 7. Images, videos

Provided in body and through links. High quality images of the project can be found also at the bottom of the report.

# 8. Relevant findings

100% of participants reported that their knowledge about the ocean increased.

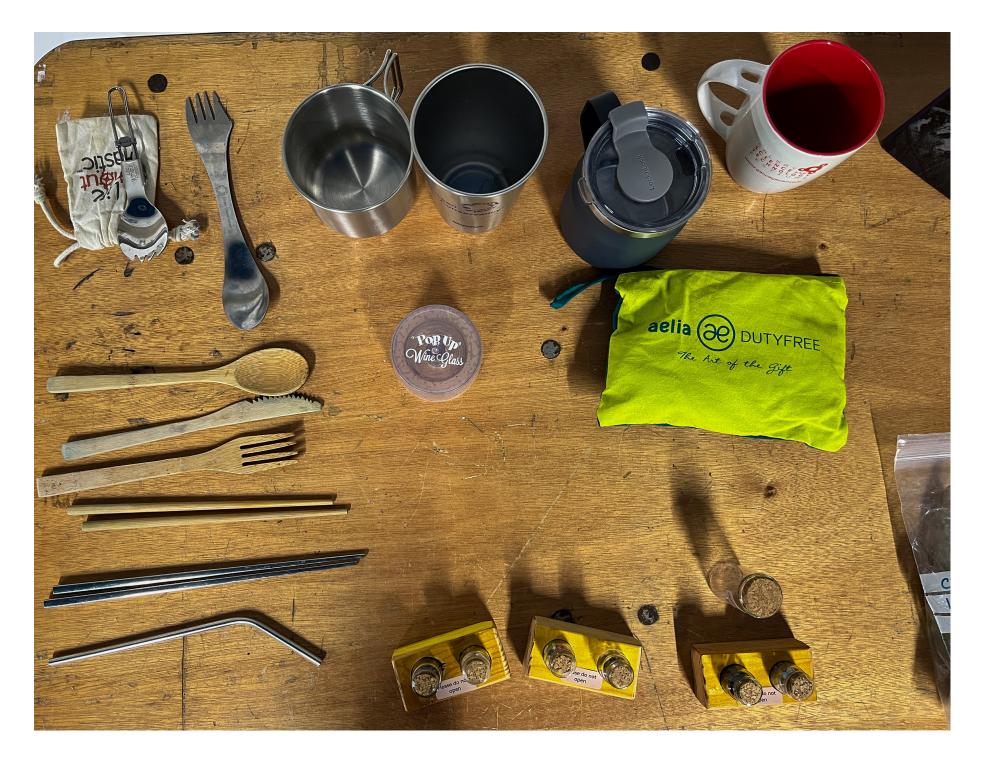
The participants' knowledge baseline at the start of the project was medium (5.2) and increased 44%, by the end of the project.

**This project** sought to include a community that did not necessarily have a concern/interest for the ocean and the threats that concerns it. Yet it **achieved its impact through** the power of the quality of teaching experiences during the Ocean Literacy workshops combined with the use of the main interest of the community, in this case **music**.

Outdoor and indoor workshops are valuable tools for **science communication and Ocean Literacy engagement**, as seen with the data gathered through the surveys. The musicians and singers reported that the workshops were important for them to learn more about climate change, ocean acidification, plastic, chemical and noise pollution, oil spills, and dead coral zones.

Surveying the audience attending the concerts by using a non-traditional method, for which the participant had to physically grab an object and place it in a bucket, is thought to increase the level of commitment towards the selected answer. From our results, more than **35%** of audience members will either visit the beach more often and care for it, or avoid single-use plastic items.





## 10. Conclusion

This project aimed to create a bridge between natural sciences and art, through music, Ocean Literacy and education for sustainable development. The co-creation of an original music piece was to inform participants and audiences about ocean protection and climate change.

The results from the project show that 100% of the musicians and singers participating in the project increased their knowledge about the ocean, its preservation and importance. Key factors for the success of the project were the hands-on approach with diverse workshops that explored the beach (rockpool experience), Ocean Literacy principles (tour of the national aquarium of Ireland) and what can be done to minimise environmental problems (behaviour change).

The project legacy will continue through all its outputs, but particularly the song *Leave No Trace* composed by Naomi Berrill, whose message of hope inspires audiences to commit to action, as also seen in the project evaluation section.

This report was written at 418.21 ppm CO<sub>2</sub>e<sup>1, 2</sup>

- 1) https://www.co2.earth/daily-co2
- 2) https://www.ipcc.ch/



## **APPENDIX**

#### 4. Outputs & Outcomes

## 4.1 Workshops

## **Rockpool workshop with Garry Kendellen**

ROCKPOOL TALK (youtube.com)

**Explore Your Shore Rockpool Experience PDF** 

## Tour of GA with Dr. Maria Vittoria Marra (GA)

②Ocean Literacy Workshops, A Guided Tour and Talks. (youtube.com)

**Ocean Literacy Workshops** 

### Interactive workshop with Dr. Joao Frias (ATU) on behavioural change

WORKSHOP 3 Behaviour Change 08 11 2023 (youtube.com)

**Behaviour Change PDF** 

## **4.2** Artist reflection

https://drive.google.com/file/d/1JaOL8dZY19gl0B8642Nnc9hlplOuHuoi/view?usp=drive\_link

#### 4.3. Lyrics LEAVE NO TRACE

https://indd.adobe.com/view/36ee4a1a-8e88-45c5-8f18-d04caf21d77d

## 4.6 TikTok Challenge

https://www.wavesofchange.net/call-4-schools

#### 4.7 Vignettes

### **Rockpool September**

https://www.instagram.com/p/CxQQbULMXsQ/?utm\_source=ig\_web\_copy\_link&igsh=MzRlODBiNWFlZA==

Reel: rockpool – September

https://www.instagram.com/reel/CxSgUmRse1W/?utm\_source=ig\_web\_copy\_link&igsh=MzRlODBiNWFlZA==

Reel: OL workshops – October

https://www.instagram.com/reel/Cyva90oMTLz/?utm source=ig web copy link&igsh=MzRlODBiNWFlZA==

Photos: November – Naomi visit

https://www.instagram.com/p/Czs4MQRsT-V/?utm\_source=ig\_web\_copy\_link&igsh=MzRlODBiNWFlZA==

Post from festival brochure – February

https://www.instagram.com/p/C35vGHuBppC/?utm\_source=ig\_web\_copy\_link&igsh=MzRlODBiNWFlZA==

Waiting for the piece... - March

https://www.instagram.com/p/C4sHbgPtLcb/?utm\_source=ig\_web\_copy\_link&igsh=MzRlODBiNWFlZA==

The day has arrived – May

https://www.instagram.com/reel/C7Gw5scMH5e/?utm\_source=ig\_web\_copy\_link&igsh=MzRlODBiNWFlZA==

About to release the video of Leave no Trace – End of August

https://www.instagram.com/p/C QIJhRMerS/?utm source=ig web copy link&igsh=MzRIODBiNWFIZA==

Second performance of the piece – September

https://www.instagram.com/reel/C 6JgQfMUaq/?utm source=ig web copy link&igsh=MzRlODBiNWFlZA==

Posts From Galway Atlantaquaria

<u>LEAVE NO TRACE - Composed By Naomi Berill We cannot be more thrilled and excited for all the friends, families, musicians, and lead partners with the... | By Galway Atlantaquaria | Facebook</u>

Practice Makes Per....Galway Bay is Calling In anticipation of the official launch of Leave No Trace, composed by Naomi Berrill this Saturday we would... | By Galway Atlantaquaria | Facebook

Presenting Galway Bay Is Calling Sometimes its about the journey and not the destination. Over the last year we worked with Music For Galway ATU... | By Galway Atlantaquaria | Facebook

We can almost feel the Call of Galway Bay. Our CreativeIrl project will be ending or just starting at Cellissimo, and we are looking for-

## ward to the... | By Galway Atlantaquaria | Facebook

GALWAY BAY IS CALLING - Summary By Dr João Frias. As we get closer to Cellissiomo and the final presentation of our Creative Ireland Project "Galway Bay... | By Galway Atlantaquaria | Facebook

Finally......After Months Of Work CELLISSIMO 2024 is LAUNCHED® A new international cello festival on the edge of Europe. Galway, Ireland: May 18 –... | By Galway Atlantaquaria | Facebook

## 4.9 Documentary

https://youtu.be/Eu27S 96RfY

## **5. Public Engagement outcomes**

Media Coverage Report













