

## Integrating Activities for Advanced Communities



### D7.4 - Outreach film 4

Project No.871120– INTERACT

H2020-INFRAIA-2019-1

Start date of project: 2020/01/01  
Due date of deliverable: 2023/06/30

Duration: 48 months  
Actual Submission date: 2023/06/07

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Dissemination Level		
<b>PU</b>	Public	X
<b>PP</b>	Restricted to other programme participants (including the Commission Services)	
<b>RE</b>	Restricted to a group specified by the Consortium (including the Commission Services)	
<b>CO</b>	Confidential, only for members of the Consortium (including the Commission Services)	

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## Publishable Executive Summary

The scientific awareness of the accelerating changes to the Arctic and what this means to the rest of the world is not matched by public awareness who have various perceptions based on limited access to scientific understanding. It is therefore essential to communicate science understanding of the rapidly changing Arctic and its global implications to the public in general and within education. To have maximum impact, within work package 7, we have worked with a world leading organization to create four short films visualizing four different yet critically important aspects of Arctic change. Deliverable D7.4 described in this report is a film entitled “The cost of Arctic tourism” showing how climate change is encouraging winter tourists to turn from the south to the north. We are told how unsympathetic tourism can lead to increased carbon emissions, spread of invasive species, disturbance to reindeer herds and disturbance to local and Indigenous communities. Indigenous presenters show us however how local communities can benefit from tourism and how Sami reindeer herders can collaborate to produce guidelines to educate tour operators and their tourists. The film is presented by Sami reindeer herders and international experts with the aid of video clips and graphic animations.

## 1. Introduction

The scientific awareness of the accelerating changes to the Arctic and what this means to the rest of the world is not matched by public awareness who have various perceptions based on limited access to scientific understanding. With often misconceived perceptions of climate change causes and impacts, actions to reduce human influences on the Arctic will be limited. It is therefore essential to communicate science understanding of the rapidly changing Arctic and its global implications to the public in general and within education. Films that graphically illustrate the Arctic, changes to the environment, impacts on people and the research carried out there are an extremely effective communication tool, particularly if shared on social media. To have maximum impact, films should be professionally developed and the communication with scientists should be accessible to a wide audience. We therefore, within work package 7, worked with a world leading organization to create four short films visualizing four different yet critically important aspects of Arctic change. Deliverables D7.1 – D7.4 are films produced by the BBC Natural History Unit (NHU) and INTERACT researchers, external experts and indigenous peoples. Deliverable D7.4 described in this report is a film entitled “The cost of Arctic Tourism”.

## 2. Production of the film

The start of the process was to negotiate a sub-contract from Sheffield University (Partner 2) to the BBC NHU. The topic of the film was developed by work packages 7 and 1 and communicated to the BBC NHU. Extensive discussions among this production team resulted in the development of a story line that was continuously evolved as participants and various media became available. The INTERACT producers suggested appropriate researchers as well as relevant conferences such as INTERACT Consortium meetings where BBC NHU producers could interview INTERACT partners who could contribute to the film.

A mass of material was accumulated but over time, the story line was focused to a few main messages. These messages were described in interviews, video clips and animations and were accompanied by a carefully crafted script in time with the video sequences. Following this compilation, the whole film was narrated by partner 2 and sub-titles were added. Because the film was developed by the BBC NHU the whole process was highly professional with the same producers, sound engineer, sound recording laboratory as the “Planet Earth” series of films (Figure 1, 2).



Figure 1. The BBC NHU Production team in the sound studio in Bristol.



Figure 2. Recording of the narration (left, in Sir David Attenborough's chair!).

### 3. Content of the film

Climate change is impacting Arctic tourism in several ways that together are resulting in an increase in the number of people visiting potential sensitive environments and communities. This film explores the advantages and disadvantages of tourism by talking to Indigenous Peoples and academic experts on tourism.

From one perspective, the increasing lack of reliable snow for winter sports in the south, is leading to more and more people choosing the north for their vacations. From another perspective, the poor snow conditions in the Arctic that are damaging the economy of traditional reindeer herding is leading to an innovation of developing a tourist industry.

Nils Torbjörn Nutti, a resilient Sami reindeer herder from northern Sweden, explains how he developed tourism in response to the challenges of climate change impacts on reindeer. He is happy that he can share his culture with visitors from abroad and accepts the rather different method of looking after reindeer to create “an open-air museum” for tourists (Figure 3).



Figure 3. Sami Nils Torbjörn Nutti has taken advantage of climate change challenges in the south to develop a winter tourist attraction in the north.

In Iceland, tourism is extreme in that tourists greatly outnumber the number of inhabitants. This brings great pressure to the sensitive island environment that has limited invasions of exotic species in the past. However, Dr Pawel Wasowicz from Icelandic Institute of Natural History in Iceland, tells us how many invasive species are being introduced to Iceland as tourism has increased. Several seeds can be found on each hiking boot so trails are routes for immigrating plant species (Figure 4).



*Figure 4. Tourism impacts fragile Arctic ecosystems by harming plants that require decades to recover and by introducing new invasive species.*

Further north, environments and communities are facing increasing tourism from cruise ships. Dr Carina Ren at Aalborg University, Denmark, remarks that carbon emissions from the cruise ships are significant. Cruise ships disturb wild life and the disturbance of many tourists in small settlements can be a big problem in places such as Greenland. Further south in Scandinavia, this pressure on local communities adds to other pressures such as increasing extractive industries and forestry (Figure 5).



*Figure 5. Increasing tourism in the Arctic can provide many challenges to communities and wild life.*

In contrast to the disturbance of Arctic communities, well planned tourism can offer a new living for Arctic Peoples. Niklas Labba, a work package leader within INTERACT and a Sami reindeer herder and economist, describes how challenges of tourism to reindeer herding can be solved by a dialogue and agreements between herders and tour operators. He describes legal frameworks that on one hand give open access to everyone on grazing lands but on the other hand, make it illegal for grazing reindeer to be disturbed. Niklas describe how educating tour operators and tourists can help to make a win-win situation to both herders and tourists (Figure 6 and 7).



Figure 6. Niklas Labba describing the win-win situation when reindeer herders and tour operators work together.



Figure 7. Working within INTERACT, Niklas Labba has shown how Sami villages can work together to develop guidelines for tour operators.

## 4. Planned distribution of the film

The premiere of the films is planned for the Arctic Circle meeting in Reykjavik, Iceland in October 2023. This is the major Arctic venue that brings together politicians, diplomats, Royalties, business representatives, Indigenous Peoples and scientists. We have applied for a session for a “movie night” to showcase the films and to reach major stakeholders. Following the premiere, the films will be made publicly and freely available on Youtube and will be linked through INTERACT’s web site, Facebook and Instagram accounts as well as the INTERACT twitter account. It is also intended that these films are used for education at school level through the network of schools in over 60 countries operated by partner 17 (IGF-PAS) and at university levels through the University of the Arctic that consists of over 200 universities. The films are produced in English with optional English subtitles which will allow non-English speaking countries to translate the storyline. Because the BBC NHU provided films in different formats for all possible purposes it is our imagination that limits the further distribution of the films but we will explore additional opportunities.