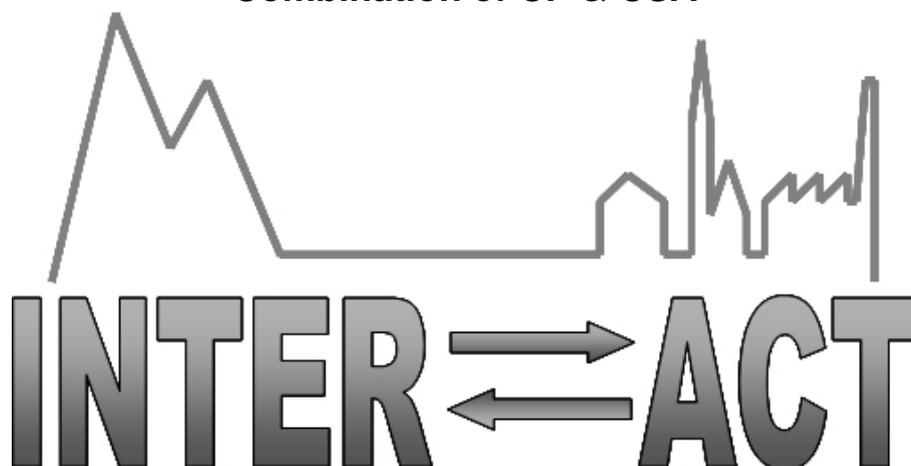


Combination of CP & CSA



D8.2- Web-based outreach

Project No.262693– INTERACT

FP7-INFRASTRUCTURES-2010-1

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Due date of deliverable: 2011/12/31 (M12)

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Author: Andrew Sier

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

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Publishable Executive Summary

By the end of the first year of INTERACT, we delivered a set of outreach web pages. We considered a wide range of potential web-based outreach components and undertook a survey of potential users to determine what would be most popular. As a result we focussed on producing an online photo gallery, news items and other online articles, including short essays by researchers making ‘transnational access’ visits to INTERACT research stations and a ‘What’s on’ section listing arctic-related events. We also launched INTERACT on Twitter and Facebook, so that we could try to build a following and use these communication channels effectively.

These initial outreach web pages are a base upon which to develop further outreach content, such as creating short videos and/or narrated slide shows explaining about key environmental issues in the Arctic and about research by INTERACT partners, adding links to web cams at INTERACT stations, producing educational resources such as work sheets and information for teachers and developing opportunities for people to share their own views (via the web) about specific Arctic environmental issues.

Other activities we are considering which would have a web component include: connecting geographically-separated classrooms or groups of people so that they can have a discussion about the Arctic – probably mediated by an INTERACT scientist; promoting and supporting the idea of Earth cache routes near to selected INTERACT sites; and engaging with indigenous people and others who live in the Arctic and enabling them to comment on INTERACT-related research, e.g. via online discussions or a survey.

Prior to developing further resources we will consult more widely within INTERACT to ensure that web-based outreach supports the wider needs of the project. We will also conduct further evaluation with web users, to help ensure what we are delivering meets user needs as far as possible.

Through the initial work undertaken we have established good links with many INTERACT station managers, many of whom are keen to engage in public outreach activities, and INTERACT’s wider outreach programme will build on these contacts as far as possible.

1. Introduction

Task 8.4 of INTERACT is ‘to create interactive website pages for inclusion in the SCANNET website with a suite of facilities including mapping, webcams, discussion forums, data access, photographs and popular science articles’ (INTERACT Work Programme). By the end of the first year of the project we have created a range of web-based outreach material and conducted other online outreach activities, as described in this report.

2. Development strategy

To develop web-based outreach material, we adopted the approach shown in figure 1, in which the first step was to decide what was potentially possible. This was followed by learning about what potential users of the website would find most useful. This helped us to prioritise development of components. We launched some content in the early stages of the project and will follow this up by refining the existing content and adding new content.

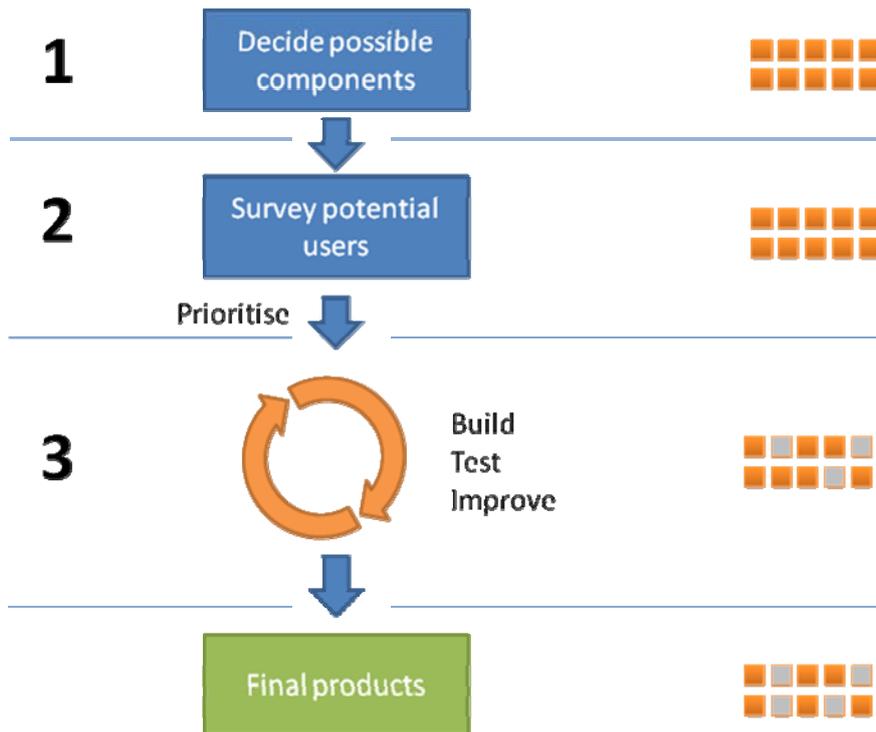


Fig. 1: Development strategy

3. Target audiences for web-based outreach

The Internet is readily available to a large number of people including those that live in the Arctic and those that don't. Awareness of arctic environmental issues addressed by INTERACT will vary greatly (most likely being greatest amongst people who live in the region). We decided that, in general, web-based INTERACT outreach content should appeal to a broad audience of non-scientists, particularly school children who can be more easily reached via the education system. Budget constraints mean we cannot translate much content into languages other than English (though where we identify a specific need we will translate text).

We will target the majority of our web-based outreach towards a person fitting this general description:

- Able to access the internet (for obvious reasons)
- Able to read English
- Sufficiently interested in the Arctic to want to explore the content we provide but with a limited awareness of environmental issues in the region.

The early web-based outreach is intended to have broad appeal. Where we identify a need to communicate with more specific groups of people we will do so, either via the website or by other means. Some ideas we have already considered are:

- Producing educational material for school children and teachers
- Connecting classrooms or groups of people via the website (e.g. enabling school children in the Arctic and outside the Arctic to talk with each other)
- Dialogue with local and indigenous people, particularly near to INTERACT stations.

It should be noted that the WP8 team have supported efforts to raise awareness of INTERACT amongst scientific researchers, for example by helping to advertise the trans-national access scheme.

4. Initial formulation of ideas

Before creating any online content we decided to list potential components we could deliver to support the outreach needs of the project. For each possible component we considered the following:

- Ease of implementation
- Timing (early, mid-project, late)
- Initial cost
- On-going cost
- Effort needed to maintain
- Expected longevity

For example:

Photo gallery: Early delivery, easy to maintain, low initial cost, low on-going costs, duration of project or beyond

Connecting classrooms: Mid to late delivery, takes effort to set up, moderate initial cost, no on-going costs , specific events.

Our full analysis of possible components is shown in Annex A.

5. Survey of user needs

5.1. Introduction

Since there are many possible types of content we could develop online to serve the purpose of wider outreach, we decided that a sensible first step would be to find out what potential end users would most appreciate in terms of web-based material and services. To achieve this we developed and launched a simple online survey. A link to the survey was featured on the INTERACT website (home page and outreach section), station managers were encouraged to promote it amongst their contacts, and details of the survey were sent out via e-mail and Twitter.

The survey could be completed anonymously. We asked for the country in which the respondent lived and the 'context' in which they were completing the survey (for example, recreationalist, researcher, policy-maker, educator, school child). Users could answer the survey more than once from different perspectives. We sought no other personal information.

The main part of the survey required respondents to rate potential components of web-based outreach on a scale from 'Essential to me' to 'Of no interest to me'. The potential components we listed were those we had identified previously (section 4). They are shown in Table 1. The full list of questions asked in the survey are shown in Annex B.

Relevant news and opportunities
'What's on' section with event details
Ideas for local action
Knowledge resources including text, maps, video, photos, etc.
'Ask a scientist' facility
Polls, quizzes, simple games
Blogs by researchers and students
Links to social media sites (Facebook, etc.)
Participatory monitoring schemes, i.e. citizen science
Map tool where users can mark places of interest
Connecting classrooms or groups via video link
Opportunities for users to comment, express views and concerns, share local knowledge and suggest ideas

Table 1 Potential web-based outreach components we asked survey respondents to rate

5.2. Survey results

Sixty-six (66) responses were received. Respondents resided in 16 different countries. 39% of respondents were from the UK, probably indicating that the survey had been more actively promoted there. Also, the survey was in English.

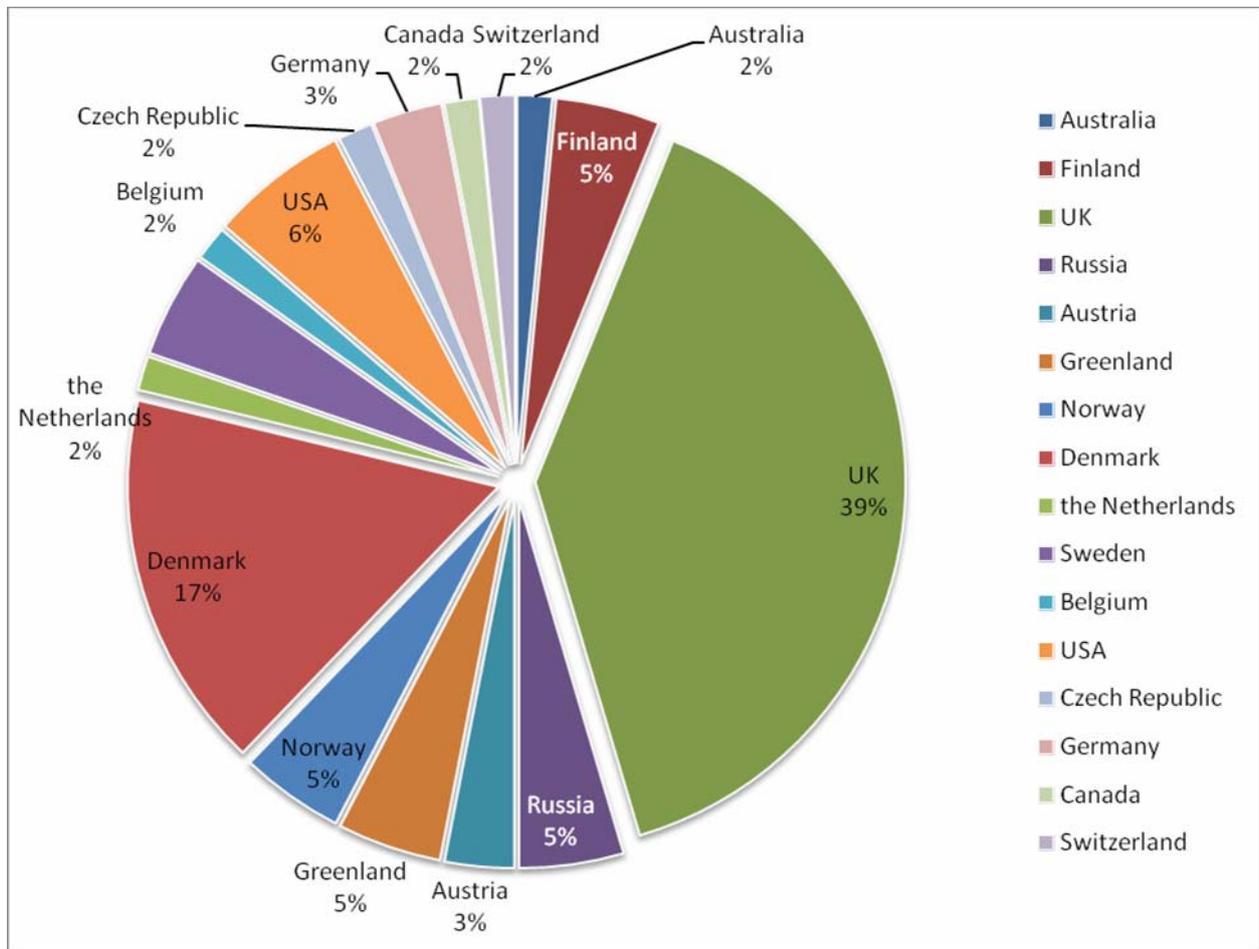


Fig. 3: Country of residence of survey respondents

Forty-six per cent (46%) of respondents answered the survey as ‘Researchers’. This probably reflects the fact that this was the easiest and largest group amongst which we could promote the survey. The other respondents were grouped into 11 other categories, as shown in Figure 4.

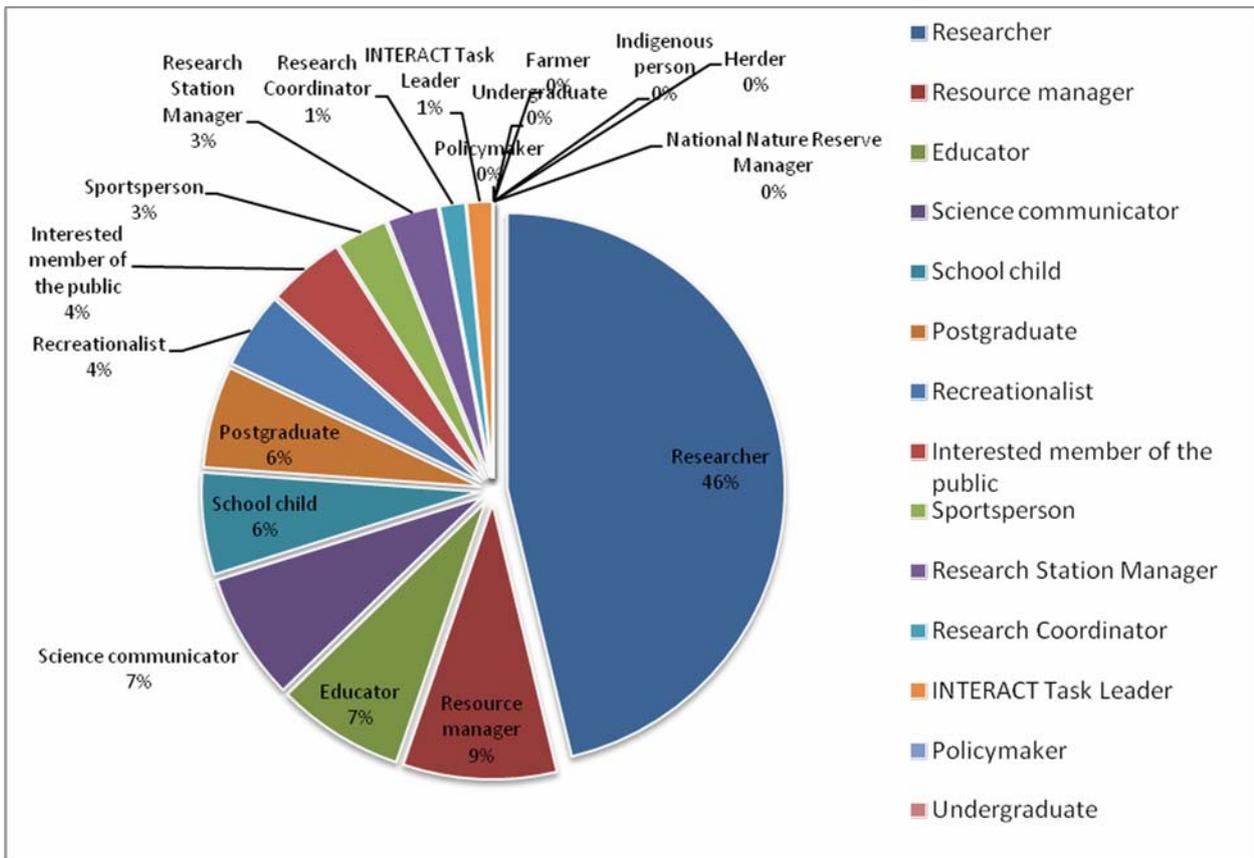


Fig. 4: The context within which respondents completed the survey

The potential web-based outreach components can be ranked by the number of responses rating the component as ‘essential to me’ (Figure 5). This is not the only way to rank the results but the results from other rankings are broadly similar. The survey suggested that amongst those responding, ‘knowledge resources’ such as text articles, maps, photos, etc. were the most popular, followed by news articles and details of ‘opportunities’ and a listing of events. In contrast, polls, quizzes and games were the least popular.

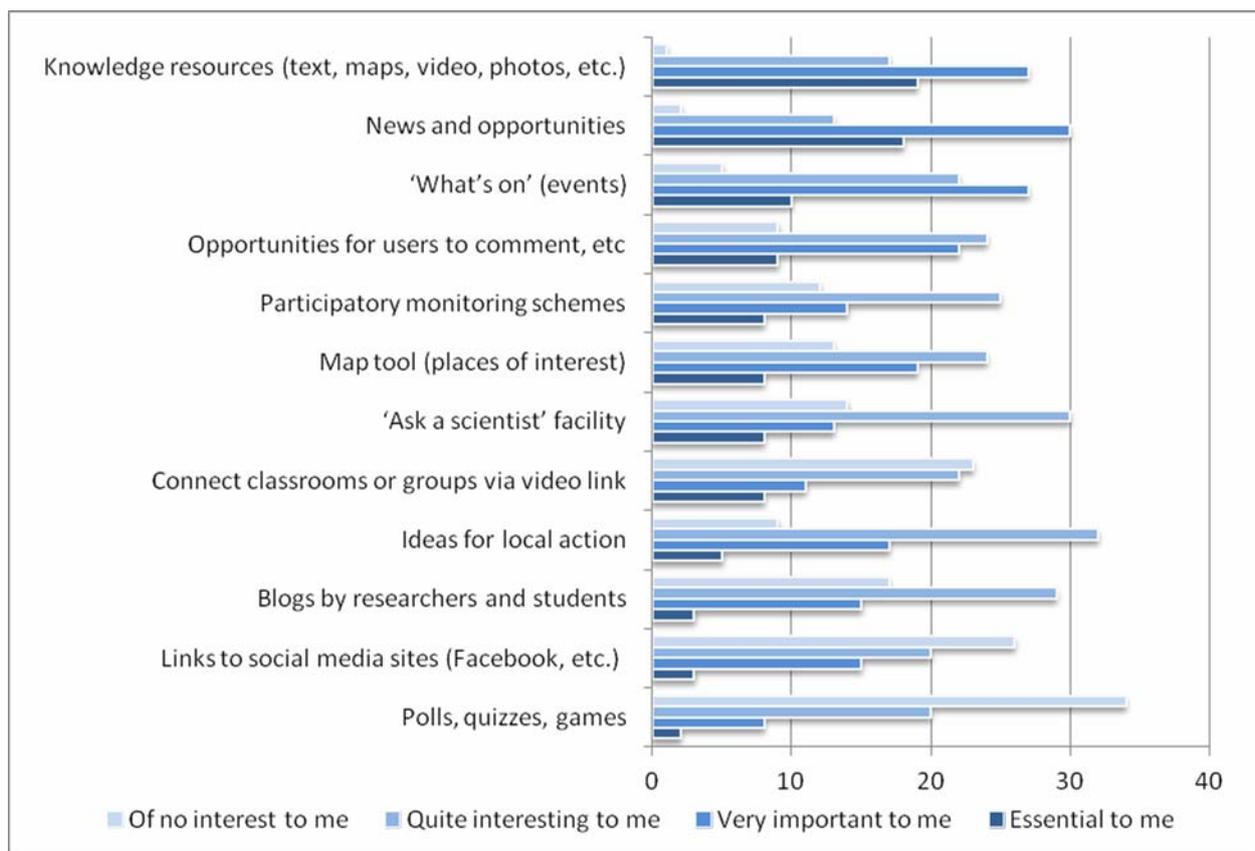


Fig. 5 Potential web-based outreach components listed in order of the number of respondents scoring the item as 'Essential to me'

Via the survey and discussions with potential web users we also captured a range of comments and suggestions regarding the development of web-based outreach. Where possible we took these into account during development.

Whilst we recognized that the number of responses to the survey was quite low and dominated by researchers, who were not the main audience for web-based outreach, we decided to precede with initial development of online content based on the results. The three most popular components were also relatively easy to deliver. Therefore, we opted to prioritise the following, which are described in the next section:

- Online photo gallery
- News items and other online articles, including short essays by researchers making 'transnational access' visits to INTERACT research stations
- What's on section listing arctic-related events
- Launching INTERACT on Twitter and Facebook.

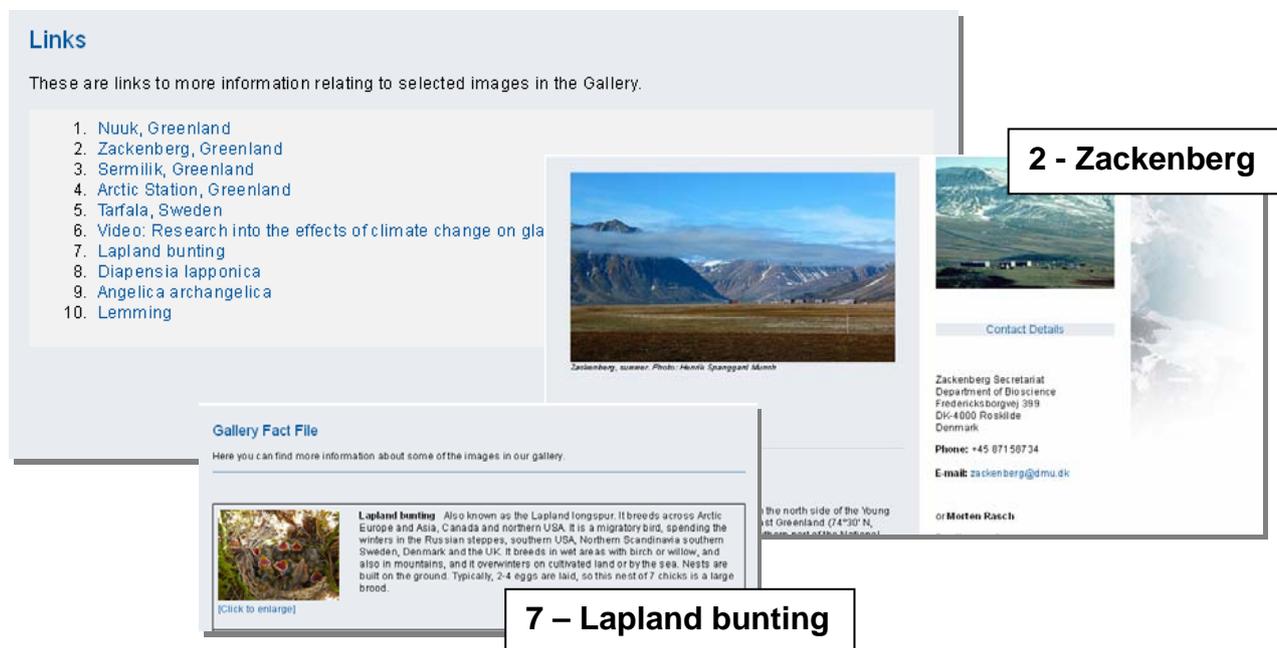
6. Initial web-based outreach

The outreach section of the website can be found here: <http://www.eu-interact.org/outreach2/> but there is some outreach material in other locations, as explained below.

6.1. Photo gallery

This is available at: <http://www.eu-interact.org/outreach2/gallery/>. The gallery consists of photographs provided by INTERACT station managers. At the 'top level' is a selection of images. There are also themed sections (currently 'Animals', 'Landscapes', 'Plants', 'Research'). It is possible to navigate directly to a themed section.

Images are presented as thumbnails. A user can click on any thumbnail to enlarge it. Once enlarged, it is possible to move manually to the next or previous image, or to start a slide show, sit back and watch. Each image has a short caption. Our aim is to make these as informative as possible. Where an image is marked with an asterisk, this indicates that more information is available. Due to limitations with the web software, this information can only be provided from the 'thumbnail view' page, at the foot of which is a 'Links' section. Clicking a link will take the user to another part of the INTERACT website. For example, some links are to the INTERACT station description pages, others are to a 'Fact file' section, and some are to external websites, as illustrated below:



The screenshot shows a 'Links' section with a list of 10 items. Item 2, 'Zackenberglapland', is highlighted with a callout box labeled '2 - Zackenberg'. Item 7, 'Lapland bunting', is highlighted with a callout box labeled '7 - Lapland bunting'. The 'Zackenberglapland' thumbnail shows a landscape with mountains and a body of water. The 'Lapland bunting' thumbnail shows a bird on a nest. The 'Zackenberglapland' callout box also shows a 'Contact Details' section with the following information: Zackenberg Secretariat, Department of Bioscience, Fredericksborgvej 399, DK-4000 Roskilde, Denmark, Phone: +45 871 587 34, Email: zackenberglapland@dmu.dk, or Morten Rasch.

Fig. 6 Example gallery links. Clicking on 'Zackenberglapland' displays the page about the Zackenberg INTERACT station. Clicking on 'Lapland bunting' displays a Gallery Fact File entry (enlarged in Fig. 7). Link 6 would open an external website featuring a video (not shown).

Gallery Fact File

Here you can find more information about some of the images in our gallery.



[\[Click to enlarge\]](#)

Lapland bunting Also known as the Lapland longspur. It breeds across Arctic Europe and Asia, Canada and northern USA. It is a migratory bird, spending the winters in the Russian steppes, southern USA, Northern Scandinavia southern Sweden, Denmark and the UK. It breeds in wet areas with birch or willow, and also in mountains, and it overwinters on cultivated land or by the sea. Nests are built on the ground. Typically, 2-4 eggs are laid, so this nest of 7 chicks is a large brood.

Fig. 7 A typical Gallery Fact File entry

6.2. News and articles

News items and other articles have included:

- **What future for the Arctic?** This short article by INTERACT is on the Nature and Biodiversity News & Views website. It explains some of the environmental changes taking place in the Arctic and invites the user to express their views. The article can be found here: <http://newsandviews.ceh.ac.uk/topics/arctic>
- **What is Arctic research like?** The user is invited to find out by reading short articles from researchers who have visited the stations in the INTERACT network through our Transnational Access programme, as well as interviews with station managers, and more. These articles can be found here: <http://www.eu-interact.org/transnational-access/transnational-access-in-practice/>
- **Brown bear from an INTERACT site plays important role in climate change studies** This news item was about the study of bear genomes one of whom (a brown bear) was from near the INTERACT station of Bioforsk Svanhovd in Norway. Comparison with the genome sequences of polar bear and giant panda could help identify genes that are relevant for environmental adaptation to climate change. The news item is here: <http://www.eu-interact.org/topmenu/news/nyhet/article/brown-bear-from-an-interact-site-plays-important-role-in-climate-change-studies-11/>
- **Close to new minimum record of Arctic sea ice extent** A news item about the extent of Arctic sea ice. Although the science did not involve INTERACT members we felt it was appropriate to issue the news items because of the large amount of attention the subject was receiving in the media and on social networking sites.

Link: <http://www.eu-interact.org/topmenu/news/nyhet/article/close-to-new-minimum-record-of-arctic-sea-ice-extent-9/>

- **An INTERACT Trans-National Access award helps scientists to observe record ice losses from Greenland Glaciers** This news item related to an early INTERACT Trans-National Access (TNA) project. Wherever possible we aim to link the results of TNA-funded work to outreach to non-scientists. Link: <http://www.eu-interact.org/topmenu/news/nyhet/article/an-interact-trans-national-access-award-helps-scientists-to-observe-record-ice-losses-from-greenland/>

We have also written two articles for the UK's NERC Arctic Office newsletter. These were aimed at researchers. The first appeared in the May 2011 issue (http://www.arctic.ac.uk/directory/nerc_arctic_office_newsletter_may2011.pdf); at the time of writing, the second was not published.

6.3. 'What's on' section

This aims to list events related to the Arctic environment, with a particular emphasis on events organised by INTERACT partners (who have been asked to provide information). At the time of writing there were not many entries but we expect this to grow. A typical entry is structured like this example:

Event	When	Where	More
PhD course - Snowtalks: course on multidisciplinary issues on snow and climate change	19-23 Mar 2012	Sweden: Abisko Scientific Research Station	www.uarctic.org/SingleArticle.aspx

6.4. INTERACT on social networking sites

We have launched INTERACT on Twitter and Facebook, providing us with additional digital communication channels. Although we have disseminated some information via these routes, and have built up a small following, it is expected that they will come more useful as the project progresses.



7. Next steps

Now that some initial web-based outreach content has been established our aim is to build upon this, for example by adding more images and related facts to the photo gallery, writing additional articles and building our following on social networking sites. In addition, a glossary of terms used in the INTERACT community will be completed: it has already been started, but the plan is to integrate the glossary with the photo gallery, so that they provide a more powerful online resource. Other products we would like to deliver are:

- Creating short videos and/or narrated slide shows explaining about key environmental issues in the Arctic and about research by INTERACT partners
- Links to web cams at INTERACT stations
- Educational resources such as work sheets and information for teachers
- Opportunities for people to share their own views (via the web) about specific Arctic environmental issues.

Other activities we are considering which would have a web component are:

- Connecting geographically-separated classrooms or groups of people so that they can have a discussion about the Arctic – probably mediated by an INTERACT scientist
- Promoting and supporting the idea of Earth cache routes near to selected INTERACT sites
- Engaging with indigenous people and others who live in the Arctic and enabling them to comment on INTERACT-related research, e.g. via online discussions or a survey.

However, we will consult more widely within INTERACT to ensure that further web-based outreach supports the wider needs of the project. We will also conduct further evaluation with web users, to help ensure what we are delivering meets user needs as far as possible.

Through the initial work undertaken we have established good links with many INTERACT station managers, many of whom are keen to engage in public outreach activities, and INTERACT's wider outreach programme will build on these contacts as far as possible.



Annex A – Early ideas for web-based outreach

The table below lists the web-based outreach components we considered possible and assesses each one in terms of time-scale, resources required and longevity. These ideas fed into the initial survey of potential users. The table was developed from a list of possible sections for the INTERACT website. Those sections which did not have a strong component of outreach to the wider public were not assessed (they are shown in grey).

Function	When to launch E=early M=mid L=later	Human resources to maintain L=low M=mid H=high	Initial cost (notes)	On-going cost (notes)	Expected longevity P=for a part of the project D=For the duration of the project B=Beyond project (with min. effort) B(*)=Beyond project (requires effort)	More detail
About						
Contacts (table with linking text)						
Field sites (with links to each site)	E	M Needs initial input from all sites	0	0	B	Interactive Map (Google Map plug-in?) with clickable locations of each site. Clicking a link -> site info page
Work Packages (text)						
Newsflash						
Participants (data base with links)						
Outreach	- See individually scored items in this table					-



Function	When to launch E=early M=mid L=later	Human resources to maintain L=low M=mid H=high	Initial cost (notes)	On-going cost (notes)	Expected longevity P=for a part of the project D=For the duration of the project B=Beyond project (with min. effort) B(*)=Beyond project (requires effort)	More detail
Activities (what's on where)	E	M May need moderating	0	0		List of upcoming (and past) events. Could allow registered users to create entries (which would only go live on the site once reviewed)
Live web cam from research station	L	M – H Cameras would need regular checking & some maintenance	Could be significant	Yes – moderate to high	D or B(*)	Min: Links to external web pages for any field site web cams maintained by SCANNET partners. Nice to have: web cam feeds embedded into INTERACT web page
Interactive Map	M	M May need moderating	Possible, but low	Possible, but low	D	A map tool where users can mark a place of interest in the Arctic, with text and, optionally, a photo. The places would then be visible to others. I suggest we use an existing third-party system. Panoramio looks good for photos. Google Earth is an option but may harder for people to use. Another possibility is Woomark (http://www.woomark.com/) which is a website and Android phone app.



Function	When to launch E=early M=mid L=later	Human resources to maintain L=low M=mid H=high	Initial cost (notes)	On-going cost (notes)	Expected longevity P=for a part of the project D=For the duration of the project B=Beyond project (with min. effort) B(*)=Beyond project (requires effort)	More detail
Log-in						
Pictures	E-M	L – M If users can upload their own then may need moderating	Possible, but low	Possible, but low	D	A place for people to upload their photos of Arctic places. Could combine with the interactive map tool, e.g. using Panoramio, or use Flickr. Or, if the CMS has a built-in photo gallery option, we could use that.
Trans National Access						
Joint Research Activities						
Research groups						
Calls						
Application on line (evaluation possibilities, uploading of documents from applicant etc)						
Links	E	L – M Needs initial input plus occasional checking	0	0	B	These would be web links we add. We could (optionally) allow registered users to suggest links, which we could publish once reviewed.



Function	When to launch E=early M=mid L=later	Human resources to maintain L=low M=mid H=high	Initial cost (notes)	On-going cost (notes)	Expected longevity P=for a part of the project D=For the duration of the project B=Beyond project (with min. effort) B(*)=Beyond project (requires effort)	More detail
FAQ	-	Not sure if this is FAQs for project management purposes or FAQs about the arctic, for a wider audience			-	-
Newsroom (press release, podcast, video cast, logos, articles which could be commented upon, pictures, charts etc)	E	M	0	0	D	News items, press releases, articles, etc. we add ourselves. Videos could be put on YouTube and we link to them or embed them. Presume there is a similar 3 rd party solution for podcasts. For user comments/discussion, either use in-built commenting component of CMS, or integrate something like Disqus comments.
Blog	E-M	H Needs commitment from a small group of scientists/students	Zero or low	Zero or low	D	Selected members of INTERACT create blogs for a defined period. Probably best to use an existing blogging tool (though if we can integrate it into the INTERACT website, that would be nice!). Alternatively, we could use Twitter for v. short status updates, rather than longer blog articles
RSS	E	L	0	0	B	



Function	When to launch E=early M=mid L=later	Human resources to maintain L=low M=mid H=high	Initial cost (notes)	On-going cost (notes)	Expected longevity P=for a part of the project D=For the duration of the project B=Beyond project (with min. effort) B(*)=Beyond project (requires effort)	More detail
Items not listed specifically in specification (further components of outreach) ...						
Ideas for local action	M	L – M Needs initial preparation	Low if simple, higher if we add a special search interface	Low	B	These would, at least initially, be articles (mainly text) we add ourselves. We could, later, invite registered users to add their own. Could allow commenting on the articles.
Knowledge resource (text, maps, video, photos, etc.)	M	M	Significant costs if we create our own videos	Low	B	Text and image articles, with the primary purpose of being used in education. Also, links to other websites, links to videos (on You Tube), etc. Ideally we'd need a way to categorise (e.g. by theme, by classroom topic, age, etc.) and make the Knowledge Resource searchable.



Function	When to launch E=early M=mid L=later	Human resources to maintain L=low M=mid H=high	Initial cost (notes)	On-going cost (notes)	Expected longevity P=for a part of the project D=For the duration of the project B=Beyond project (with min. effort) B(*)=Beyond project (requires effort)	More detail
'Ask a scientist' facility	M-L	H Would need commitment by small group for defined periods	Low to moderate depending on technical solution	0	P	Where people can post a question which we send out to a team of scientists who have agreed to take part. We could use a discussion forum or we could run it via e-mail. Would be good if users could search for or browse the questions that had been asked.
Polls, quizzes, simple games	M – L	L	Games could be expensive to produce	0 to low	B	Very simple polls and quizzes, ideally integrated into INTERACT web pages (some CMS have such tools). For games, we would have to ask a game designer to create them, presumably as Flash objects.
External social media sites	M	M Initial effort to set up, but should be come self-sustaining by users	0	0	B	Links to Facebook, Twitter, Flickr, etc. We'd need to explore the advantages of tight integration with the INTERACT website.
Participatory monitoring scheme	- We have yet to specify the exact nature of this					-



Function	When to launch E=early M=mid L=later	Human resources to maintain L=low M=mid H=high	Initial cost (notes)	On-going cost (notes)	Expected longevity P=for a part of the project D=For the duration of the project B=Beyond project (with min. effort) B(*)=Beyond project (requires effort)	More detail
Classroom – to-classroom interaction via web	M-L	M Requires effort to set up, but for defined, short periods	Possible costs depending on technical solution	0	P	We'd have to use proprietary software for this, like Skype.
Commenting & online discussion forums	E-M	M INTERACT people may need to kick-start discussions. May need moderating	0 to low	0 to low	D or B(*) May need moderating	As mentioned above, either the CMS's own discussion system, if available, or integrate something like Disqus

Annex B – Initial survey of user needs

The online survey to capture user needs in terms of web-based outreach consisted of the following questions:

1. In what country do you currently live?

2. I am answering this survey as a ... (Please select one option and answer the rest of the survey from that perspective. You can complete the survey as many times as you wish, 'wearing different hats').

Options were:

- Resource manager
- Recreationalist
- Researcher
- Policymaker
- Educator
- School child
- Undergraduate
- Post graduate
- Science communicator
- Sportsperson
- Farmer
- Herder
- Indigenous person
- Interested member of the public
- Other (please specify)

3. Please consider the following suggested elements of the INTERACT website. Think about their importance to you (remembering the context you stated above). Then score each with one of these options: Essential to me; Very important to me; Quite interesting to me; Of no interest to me.

The elements were:

- Relevant news and opportunities
- 'What's on' section with event details (mainly events related to arctic environments)
- Ideas for local action (searchable by theme and location)

Knowledge resources including text, maps, video, photos, etc.

'Ask a scientist' facility (submit a question about arctic environments which an expert will try to answer)

Polls, quizzes, simple games aimed at various age groups

Blogs by researchers and students (revealing what it's like to be an arctic research scientist)

Links to social media sites (Facebook, etc.) perhaps encouraging virtual community building

Participatory monitoring schemes, i.e. citizen science (details yet to be specified)

Map tool where users can mark places of interest (with an optional photo)

Opportunities to put classrooms or groups of people in touch via video link to share knowledge and experiences

Opportunities for users to comment, express views and concerns, share local knowledge and suggest ideas, e.g. for research

4. Use this space to comment on any of the proposed ideas listed in question 3

5. Use this space to tell us about other ideas for content on the INTERACT website

6. Finally, if the INTERACT website had mostly features which you have rated as 'essential' or 'very important', how often do you think you would visit it?

Options were:

Every day

Every week

A few times a month

A few times a year

Never

I'm not sure

Comments given for Q4 ('Use this space to comment on any of the proposed ideas listed in question 3') were:

1 As a manager of a small research station in Australia, I am looking for information, ideas and contacts with other managers with aim of increasing my knowledge on best practices for managing research stations.

2 As a teacher of secondary science, any resources where pupils can actually see real research projects in action, with results that matter to them, in as interactive way as possible, is a great way of introducing them to the varying careers in science other than your standard doctor, vet, dentist and pharmacist.

3 You should definitely open a Facebook account and it's the best way to communicate with today's generation. You can share the links of available opportunities and news/conferences/interesting videos there and then people can read the detail on your website.

4 more information about what research is currently done, what has been done in the past 10 years maybe - or even what is possible in terms of lab facilities - at each station or field site (although this is available for some stations)

5 I might try to tell later.....

6 Judging by the range of suggestions outlined above, it seems like you have yet to define what overall audience you want your "outreach" site to reach out to. To achieve a useful and functional web site, I do believe that you should start by defining this, THEN send out a query to people within the relevant target group - and the scientists potentially providing material. As defined now, the options are simply too broad to arrive at a sensible format.

7 Just now there is very little of interest to me as a researcher.

8 In Belgium there is a project www.ikhebeenvraag.be that allows the general public to ask scientist questions about anything, maybe interesting to get in touch with hem.

9 it is important to me that work being done by others is not duplicated. attention is already sparse and should not be spread thinner by too many competing for eyes.

10 The San Francisco Exploratorium (Science Museum) Ice Stories webpage is one that I have contributed to and consider relatively successful and well-done, see: <http://icestories.exploratorium.edu/dispatches/> It may not be everything you want, but some components are useful in terms of approach.

11 Czech Republic starts to sponsor the construction of research station in Svalbard. All information which help to include our research and education activities in Arctic (bipolar) research are appreciated.

12 this would be fantastic.. such good ideas a bit like theRGS / BAS site but better. Good luck

13 Videos are very useful for students in the UK as they have no real perception of what the Arctic is like

14 Knowledge resources like data and maps would be great.

15 Highlighting research news is paramount

16 Many of the proposed ideas are great but are probably difficult to make available for locals in the variety of countries embarked by INTERACT. Many locals in Greenland (fishermen, hunters etc.) will have a hard time reading/understanding an English website. And for "ask a scientist", blogs, polls, quizzes etc. to function they will probably have to be translated in to quite a few languages...

17 If the use of this web site is widely adopted in all countries, it would be a great opportunity to action to international citizen science reserach. I'm thinking a coordinated project on migratory species (so you could get an arctic same day snap shot of species presence - like the RSPB garden bird project). From an earth science point of view similar possible citizen science engagement would be enhanced by sharing experinece and ideas.... we are behind the species workers on this.

18 Information should be "compartmentalised" to allow easy identification of material relevant to an individual user while preventing/reducing information overload

19 The what's on section - I don't know what topics would be covered. What happens at at station or? The ideas for local action - such as what? New raindeer grazing areas? How to act when snow is melting? When it comes to opportunities to comment I don't think it is important to comment research or articles at all. But information from indigenous people is very relevant

20 Import that the website functions as a dialogue forum for station managers allowing them to exchange information on whatever questions/problems they mey have. Website also should provide contact info/links to Interact tasks leaders, so station managers can pose relevant questions to relevant task leaders.

21 I do not know why nothing is "essential to me"...?

22 I find the topics that establish contact with local communities, schools etc. important. I like the very direct contact, like chatrooms, facebook etc.

23 It's especially good that both classrooms and groups of people are mentioned in the same opportunities section. I think learning for students is more effective when they can link with non-students and adults can be more focussed when they see student involvement and can help or link with students.

24 news are crucial and has to be listed first

Comments given for Q5 ('Use this space to tell us about other ideas for content on the INTERACT website') were:

1 An overview section that breaks down the areas of research that are going on (what questions are trying to be answered), where they are happening (maps to link areas where

the same research is ongoing), a brief section on what research is actually being done in that area (equipment, measurements, etc.), and any results gained so far.

2 You should encourage school teachers to follow your website/Facebook for recent developments in the Arctic science as any changes in the poles will be very useful information for whole of the earth.

3 weather, snow pack, current and historic.

4 make the language clearer, simpler and more entertaining. If this is anything to go by, it's written by scientist, for scientist. Most people who go to these environments (eg Cairngorm) are NOT scientists

5 people involved, etc.

6 blogs of people doing work at various stations

7 What is the common activities in INTERACT what is the frontier new science and the common possibilities of the science activities in the INTERACT. ? How is INTERACT making the platform of development of the common breakthrough of science in the north?

8 I propose that you aim the site at *school children*, to be used as a teaching resource. Such a decision will help delimit the range of information to be included.

9 The INTERACT website should be a portal to gain access to all monitoring data at all stations, such as related to climate, vegetation, permafrost, river discharge and whatever is available

10 I am particularly interested in seeing traditional ecological knowledge of native peoples presented, including in their own language, and in encouraging transmission of this knowledge from elders to younger people in their own area, and thence also worldwide.

11 We would appreciate if our research station and our research group will be accepted in international Arctic (bipolar) research activities.

12 Opening up such an area in an educational way is critical so keep going with the great ideas!

13 poss link to various exam options

14 Perhaps some key graphics showing climate change trends, loss of species etc - a range of easy to digest environmental and ecological changes.

15 Maps of actual arctic change over time.

16 The types of research conducted at INTERACT sites, the protocols used and the results.

17 publications associated with each reserach station

18 standard information sources such as ACIA, SWIPA, IPCC POLar Chapter and films such as SWIPA, ACIA. Also, there needs to be a link to the IPÅY Outreach/education process.

19 SMF meeting minutes Station catalogue database and report Best practises for station management report Monitoring and research database and report Equipment marketplace

20 content which is useful for teaching at school or university

21 A page with an ongoing picture competition - winners to be selected once every three month. Links between the research sites and relevant museums or zoological gardens.

22 How about a "class project" wall, where once a quarter a classroom somewhere can post their Arctic project. Then run simple competitions for classes to be awarded a quarter.

23 will be nice to add the list of ongoing projects within the INTERACT WP4

The results of question 6 (If the INTERACT website had mostly features which you have rated as 'essential' or 'very important', how often do you think you would visit it?) were:

Every day	1.5%	(1)
Every week	22.7%	(15)
A few times a month	45.5%	(30)
A few times a year	19.7%	(13)
Never	0.0%	(0)
I'm not sure	10.6%	(7)