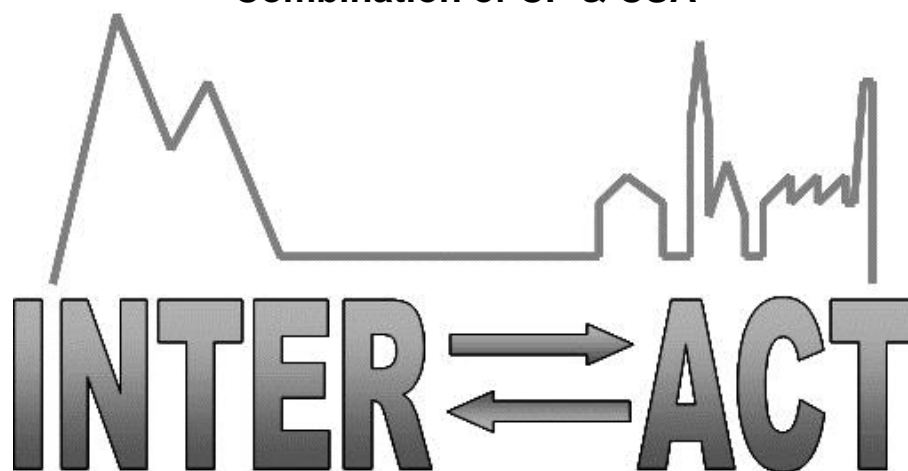


## Combination of CP & CSA



### D4.2 - Unit of Access delivery

Project No.262693– INTERACT

**FP7-INFRASTRUCTURES-2010-1**

Start date of project: 2011/01/01  
Due date of deliverable: 31/08/2014

Duration: 48 months  
Actual Submission date: 31/08/2014

Lead partner for deliverable: UOULU  
Author: Kirsi Latola, Hannele Savela

| 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

In INTERACT, supported by the EU FP7, Transnational Access (TA) was offered to 20 terrestrial research stations located in the northernmost parts of the Europe and the Russian Federation. Altogether 7366 person-days of access were used in 2011-2014 by 185 user groups (539 users) that were selected after scientific evaluation. This represents 74% of the total amount of days offered in GA. Altogether 303 eligible user groups applied TA. The overall success rate of applications was 64%. In addition, INTERACT has facilitated TA to Canada and the US with national funding from North America (but this is outside of the scope of the current deliverable).

The user groups were from 19 EU Member States or Associated States. The largest proportion of TA user groups (34) was from the UK, followed by Austria (8%) and Germany and The Netherlands and Sweden (7% each).

The user groups' scientific discipline was determined according to the classification in the Access Database. The largest discipline among the user groups was Ecosystems and Biodiversity (47% of the user groups), followed by Global Change & Climate Observation (27% of the user groups) and Other –Earth Sciences (13%). Other disciplines (Water Sciences/Hydrology, Other -Environment, Molecular and cellular biology) were represented by less than 10% of the user groups each. The category “Other” (2%) consisted of individual groups representing veterinary sciences, other life sciences, law, and engineering and technology.

The gender balance of the TA users was 66% male and 34% female. New users represented 74% of the users, whereas 27% were returning users. Altogether 44% of the users were young scientists (undergraduate, post-graduate, post-doc).

## 1. Transnational Access delivered

### 1.1. Statistics

Altogether 17 500 person-days of access were applied in the six TA calls arranged in 2011-2014 (Table 1). Altogether 303 eligible user groups applied TA. The overall success rate of applications was 64% for user groups. The proportion of granted user days was 44% of the days applied, whereas 96% of the granted days was used and consequently claimed.

Table 1. Summary of the six arranged TA calls in 2011-2014.

|                 | 1st  | 2nd  | 3rd  | 4th  | 5th* | 6th  | TOTAL in 2011-2014 |
|-----------------|------|------|------|------|------|------|--------------------|
| Groups applied  | 35   | 22   | 72   | 87   | 9    | 87   | 312                |
| Groups eligible | 32   | 21   | 71   | 85   | 9    | 85   | 303                |
| Days applied    | 2873 | 1470 | 4758 | 4324 | 251  | 3799 | 17 475             |
| Days Granted    | 1384 | 555  | 1671 | 1874 | 192  | 1963 | 7639               |
| Groups selected | 30   | 18   | 38   | 50   | 7    | 54** | 195***             |

\*The call limited to Boreal Stations, i.e. Oulanka, KEVO, KOLARI, Bioforsk, FINI, Mukhrino Field Station.

\*\*Two of these groups cancelled before the summer 2014 field season.

\*\*\*The difference compared to the number of user groups selected for access (195) and reported in access database (185) is due to the difference between application/selection and reporting schedules. I.e. some groups have been granted access in two or more calls, but if their access visits took place within the same reporting period of 18 months, the group only has one record in the access database for that reporting period.

All 20 stations offering TA received applications; however the application pressure varied between the stations and geographical area (Table 2 and 3). The largest application pressure was to the Greenlandic stations (4 stations, 35% of all days applied), whereas the North-Atlantic in Iceland, Scotland and The Faroes (3 stations, 6% of all applied days). Scandinavian and Finnish stations received 45% of all applied days, but because were altogether 8 stations within this geographical area, the application pressure was not so high per individual station.

Table 2. The percentage of applied person-days of access according to stations' geographical region.

| Geographical region     | % of stations offering TA | % of days offered | % days applied |
|-------------------------|---------------------------|-------------------|----------------|
| Greenland               | 20                        | 20                | 35             |
| Scandinavia and Finland | 40                        | 56                | 45             |
| Russia                  | 25                        | 15                | 14             |
| North-Atlantic          | 15                        | 9                 | 6              |

Table 3. Summary of Transnational Access offered, applied and used in 2011-2014, specified for the 20 stations offering TA.

|                                | Days offered in GA | Days applied 2011-2014 | Days used 2011-2014 | User groups |
|--------------------------------|--------------------|------------------------|---------------------|-------------|
| <b>Greenlandic stations</b>    |                    |                        |                     |             |
| Zackenbergl                    | 1047               | 3394                   | 1113                | 28          |
| Arctic Station                 | 262                | 1163                   | 205                 | 11          |
| Sermilik                       | 331                | 853                    | 385                 | 12          |
| GINR                           | 307                | 679                    | 297                 | 11          |
| <b>Scandinavian stations</b>   |                    |                        |                     |             |
| Oulanka                        | 641                | 212                    | 286                 | 10          |
| Tarfala                        | 419                | 1209                   | 504                 | 16          |
| Kevo                           | 505                | 841                    | 394                 | 27          |
| Kilpis                         | 439                | 1687                   | 501                 | 19          |
| Kolari                         | 117                | 131                    | 74                  | 5           |
| Finse                          | 417                | 418                    | 222                 | 12          |
| Bioforsk                       | 834                | 446                    | 362                 | 13          |
| Abisko                         | 2120               | 2908                   | 1363                | 37          |
| <b>Russian stations</b>        |                    |                        |                     |             |
| Mukhrino                       | 780                | 1022                   | 698                 | 17          |
| Khibiny                        | 172                | 473                    | 278                 | 6           |
| Chokurdakh                     | 55                 | 276                    | 91                  | 2           |
| Spasskaya Pad                  | 55                 | 356                    | 44                  | 3           |
| Samoylov                       | 1033               | 327                    | 110                 | 4           |
| <b>North-Atlantic Stations</b> |                    |                        |                     |             |
| FINI                           | 823                | 522                    | 286                 | 11          |
| Litla Skard                    | 41                 | 338                    | 69                  | 6           |
| Cairngorms                     | 35                 | 220                    | 45                  | 3           |
| <b>TOTAL</b>                   | <b>10433</b>       | <b>17475</b>           | <b>7366</b>         |             |

Altogether 7366 person-days of access were used in 2011-2014 by 185 user groups (539 users) selected after scientific evaluation (Table 4). This represents 74% of the total amount of days offered in GA. All 20 stations offering TA received user groups. A summary of TA offered and used at the stations is presented in Table x. One fifth (22%) of the user groups visited more than one station for a comparative study.

Table 4. Summary of the Transnational Access used during the reporting periods, and in total in 2011-2014 for the 20 stations that offered TA.

|             | PR1  | PR2  | PR3  | TOTAL<br>2011-2014 |
|-------------|------|------|------|--------------------|
| Days used   | 3680 | 1555 | 2131 | 7366               |
| User groups | 37   | 86   | 62   | 185                |
| Users       | 102  | 259  | 178  | 539                |

The distribution of the installation use (percentage of all person-days used) is presented in Fig 1. The largest proportion of person-days was used in Abisko (SWE; 19%), followed by Zackenberg (GRL; 15%). Other stations each had <10% proportion of all used days.

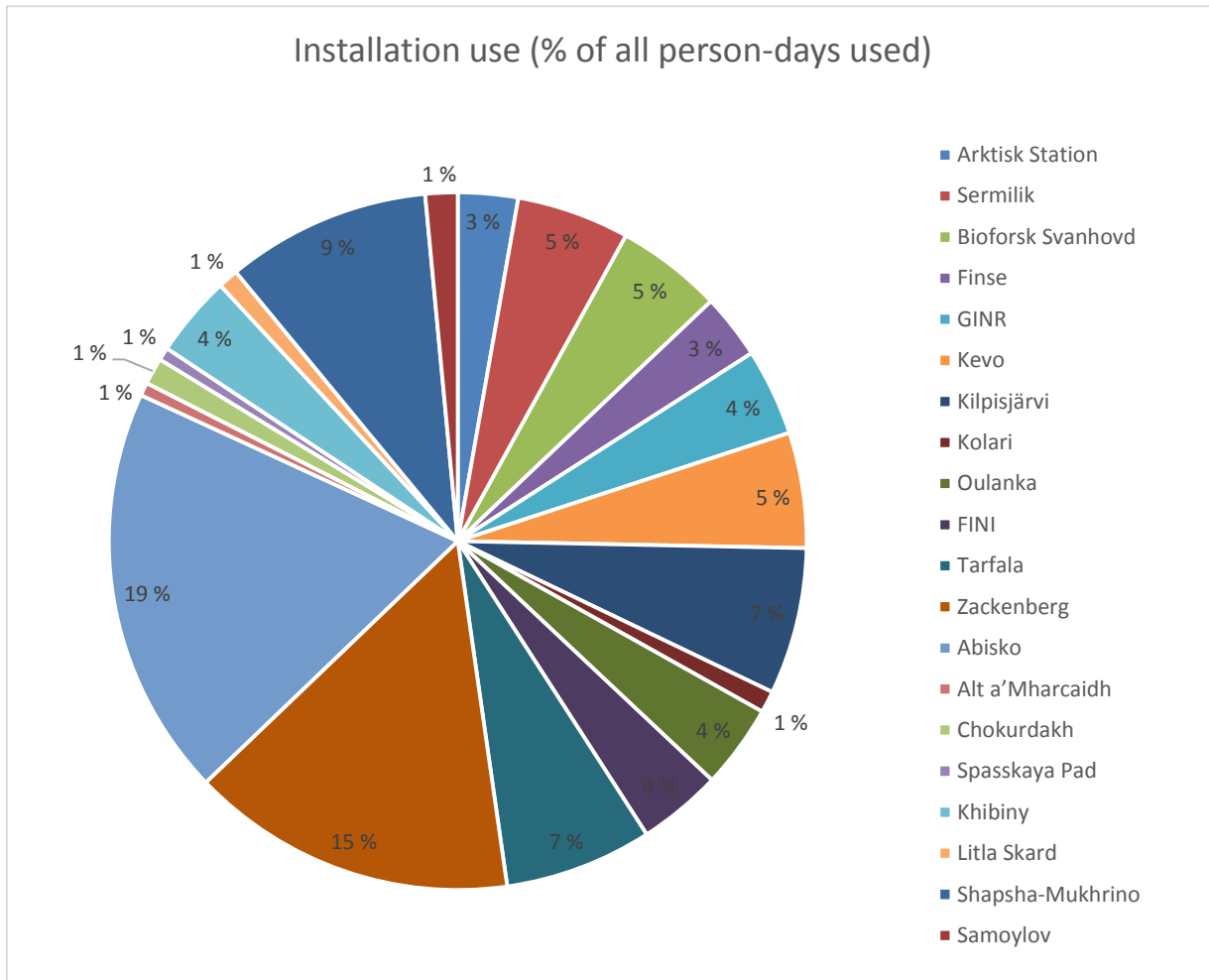


Figure 1. Distribution of the person-days used at the 20 stations offering TA in INTERACT.

The user groups were from 19 EU Member States or Associated States (Fig 2 and 3). The largest proportion of TA user groups (34 %, defined according to the user group leader home institution country) were from the UK, followed by Austria (8% of all user groups), and Germany, The Netherlands and Sweden (7% each).

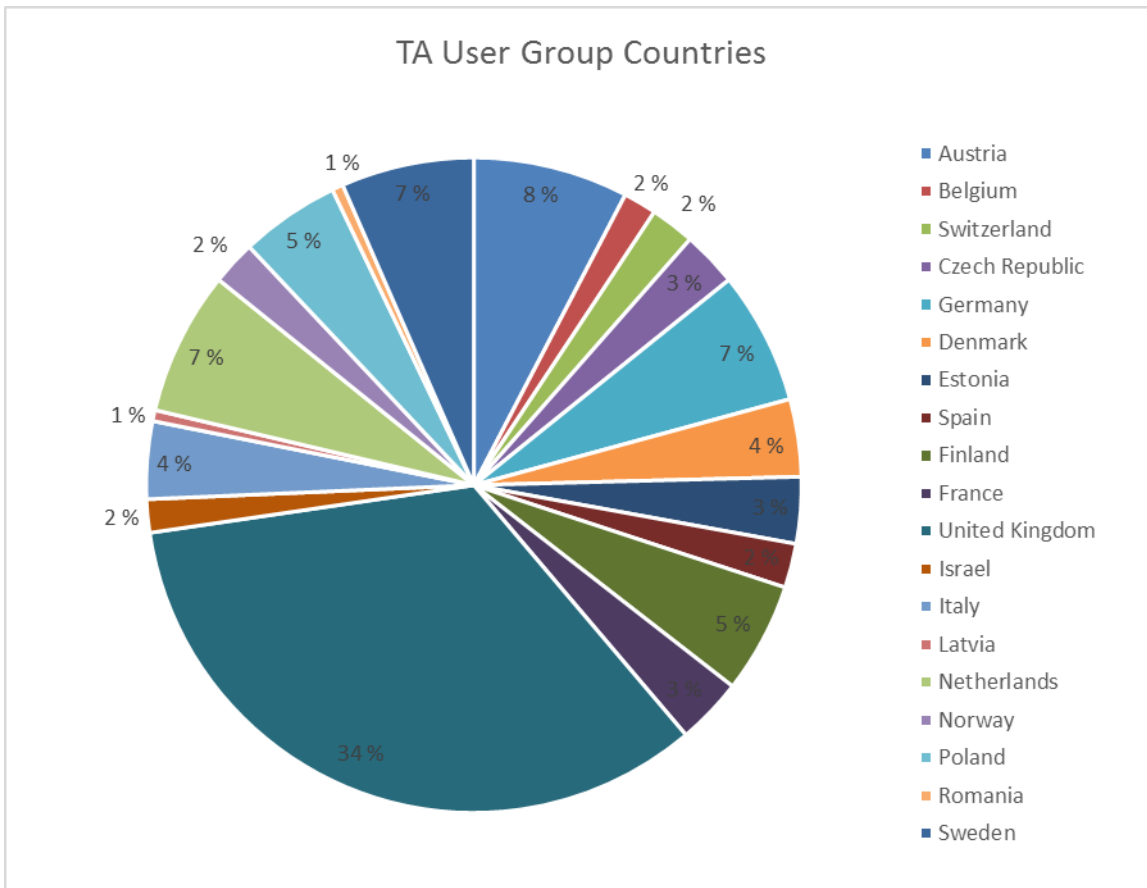


Figure 2. TA User Group countries according to the user group leaders’ home institution country.

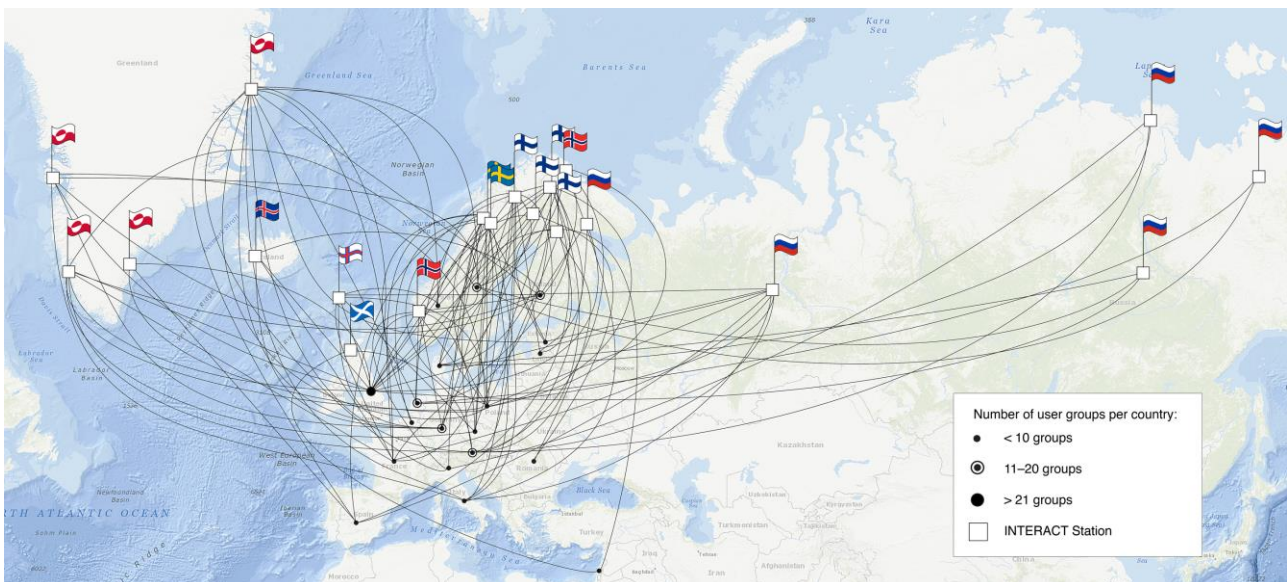


Figure 3. TA User Group countries (according to user group leader home institution country) and receiving stations.



The user groups' scientific discipline (Fig 4.) was determined according to the classification in the Access Database. The largest discipline among the user groups was Ecosystems and Biodiversity (47% of the user groups), followed by Global Change & Climate Observation (27% of the user groups) and Other –Earth Sciences (13%). Other disciplines (Water Sciences/Hydrology, Other - Environment, Molecular and cellular biology) were represented by less than 10% of the user groups each. The category “Other” (2%) consisted of individual groups representing veterinary sciences, other life sciences, law, and engineering and technology.

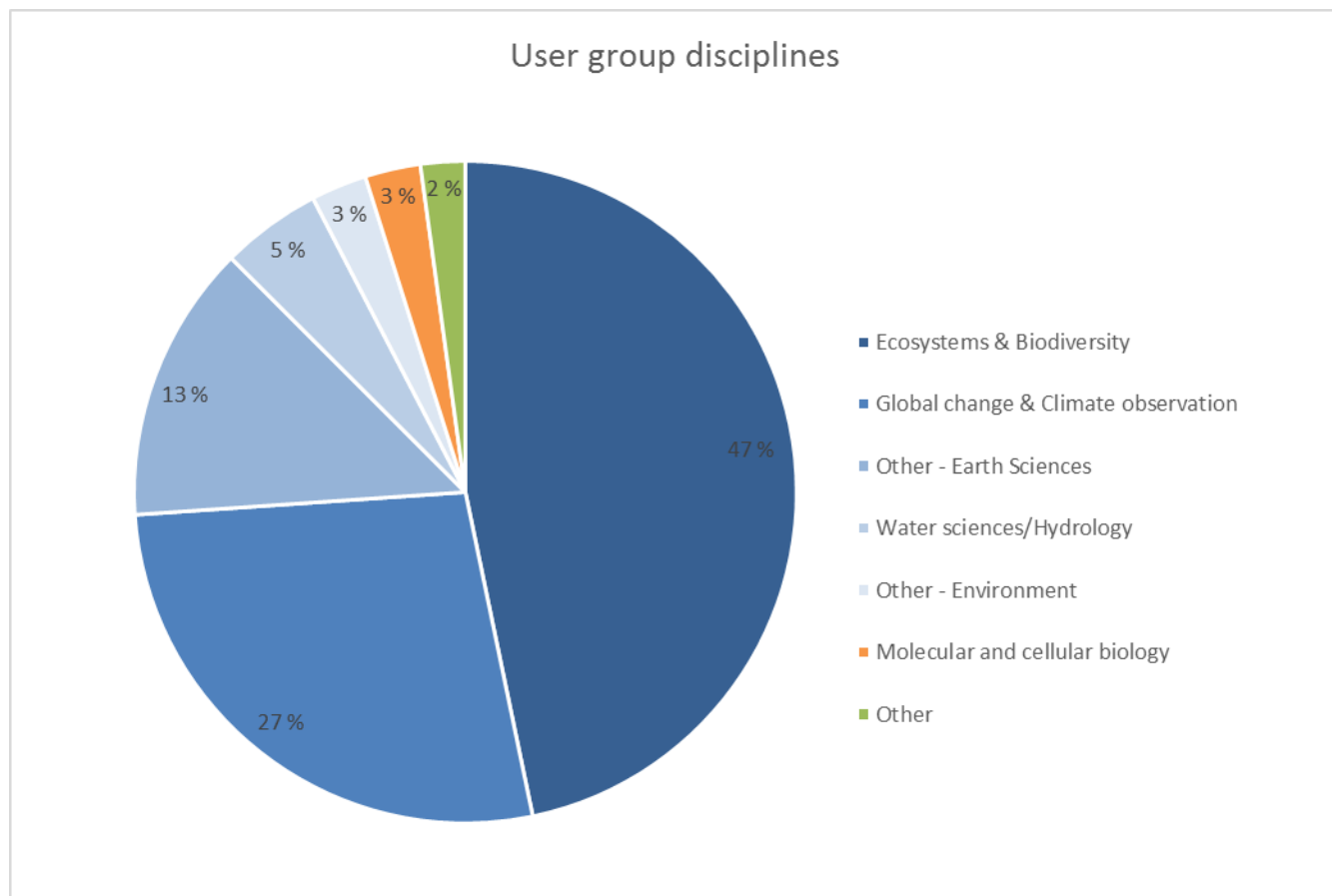


Figure 4. TA User group disciplines according to the classification in the EU Access Database.

There were altogether 539 TA Users in 2011-2014. The users were from 25 countries (Fig 5). The largest share of users was from UK (30%), while all other countries represented less than 10% share of all users.

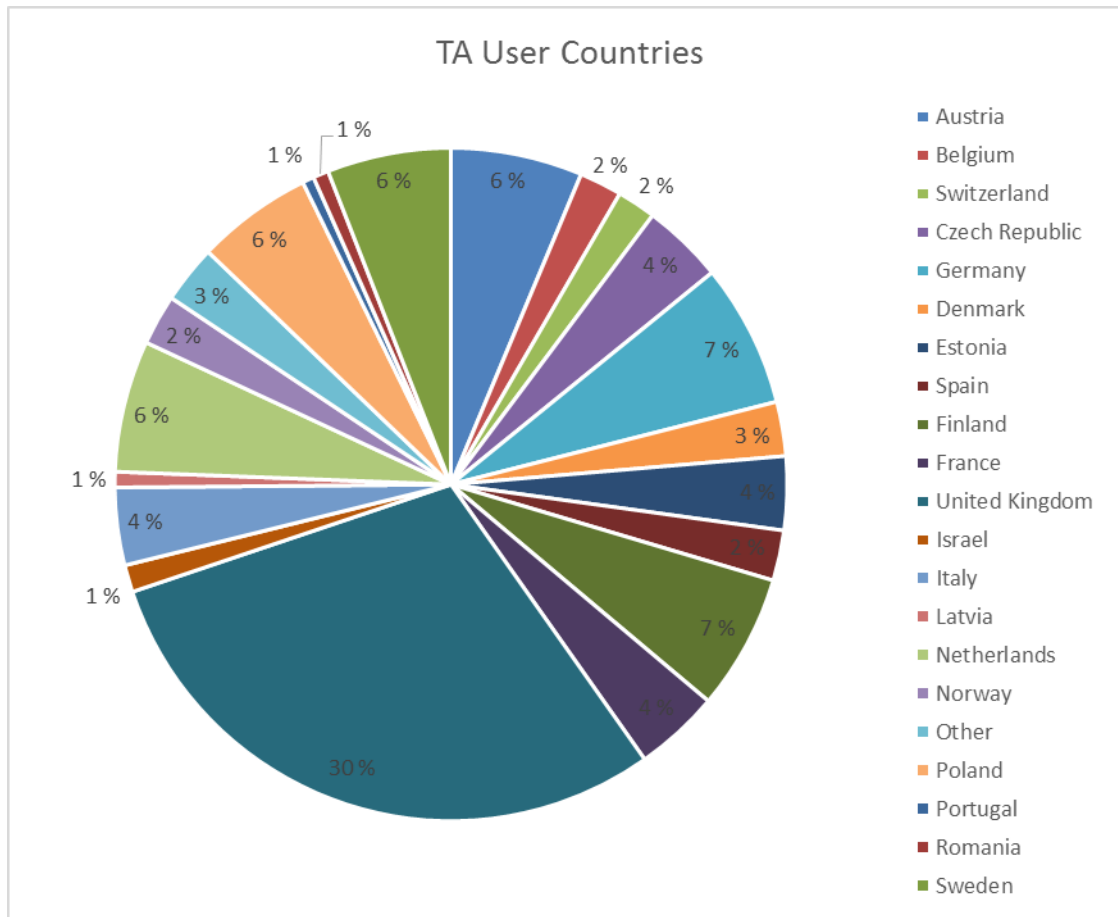


Figure 5. TA Users’ country of origin and their proportion of all TA users.

The gender balance was 66% male and 34% female. New users represented 74% of the users, whereas 27% were returning users that had visited the particular station before with either INTERACT TA or some other source of funding. Altogether 44% of the users were young scientists (undergraduate, post-graduate, post-doc).

### 1.2. Deviation from the planned access, and the access pool

The number of TA days used in INTERACT in 2011-14 was 1555 (PR1) + 3680 (PR2) + 2131 = 7366 user days, which is less than the total of 9955 user-days planned to be delivered in the Grant Agreement.

There are some critical factors affecting the actual number of granted and used user days. There has been a clear demand and pressure for applying for access to the expensive to reach high Arctic

stations whereas the more accessible sub-Arctic and boreal forest stations have not been able to attract as many applicants as anticipated. Also, some stations overestimated their capacity due to the lack of prior experience. However, the units of access used is in fact very high particularly as the research stations offering access are situated in remote and harsh environment. Further the following report describes the unprecedented success of INTERACT TA scheme.

Although some stations had overestimated their capacity, there were stations that had clearly underestimated their demand for access. Thus, *an access pool system* was developed for redistributing the unused days to those stations that were in demand for more user-days. Since the estimated unit cost per station varied from 38.52 EUR (FINI) to 676.67 EUR (GINR) the number of redistributed user-days depended on the unit cost of the station donating their excess days to the pool and on the unit cost of the station receiving them. For example, adding one user-day to GINR would require 18 user-days from FINI.

The number of total user-days to be delivered was 10433 in the grant agreement. Due to the Samoylov research station's (partner 23) unexpected closing due to renovation (decision on that was made by Putin during his visit to station in 2011) and limitations set for the non-Russian visitors made it impossible for the station to offer all granted days, and thus 553 days (equals to 82696 EUR) were re-allocated from Samoylov to three stations: Zackenberg, Kevo and Kilpisjärvi (25 days each = 75 days) and to TA management ( 30 250 EUR to partner 3 for TA Board coordination and meetings) and contingency funding (20 000 euros to partner 3 for unexpected TA user related costs, i.e. emergency situations).

| Partner/ cost category                                    | Existing TA budget (SUPP EC request) | New TA budget ( SUPP EC request) | Change   | % Change to partner's total budget |
|---|--------------------------------------|----------------------------------|----------|------------------------------------|
| AWI   | 159 443                              | 76 747                           | -48 %    | -66 %                              |
| Kilpis  | 138 964                              | 146 792                          | +5.6 %   | +5 %                               |
| Kevo  | 156 976                              | 164 928                          | +4.9 %   | +4.2 %                             |
| Zackenberg  | 524 704                              | 537 322                          | +2.4%    | +1 %                               |
| UOulu   | 423 417                              | 477 185 **                       | +12 %    | +10 %                              |
| New budget for co-ordination of TA (cost of meetings etc) | 0                                    | 30,250 Euros                     | -        | -                                  |
| New contingency fund                                      | 0                                    | 20,000 Euros                     | -        | -                                  |
| <b>Overall TA</b>   | <b>3 240 933</b>                     | <b>3 658 767</b>                 | + 11,5 % | -                                  |
| <b>TA relative to the Total INTERACT Budget</b>           | 44,6%                                | 43,9%                            | -0.7%    | -                                  |

for the whole period

\*\* includes now the budget for TA co-ordination and contingency funds as other direct costs

### Specific information about the following partners:

- Partner 3, UOULU, Oulanka
- Partner 7, SCS, FINI
- Partner 16, Bioforsk, Bioforsk
- Partner 23, AWI, Samoylov
- Partner 29, POLAR, ANS

***Partner 3 Oulanka:***

Number of person-days offered at Oulanka was 641 days in the GA (equals 139 340,58 EUR) for the whole project period. Oulanka research station locates in Boreal forest in North-Easter Finland and even if there was a targeted TA call for Boreal research stations (including Oulanka) arranged in 2013, they still were not able to attract so many users as anticipated. Therefore, the station decided to contribute excess days to the access pool (TA user days and T&S redistribution system for INTERACT) equal to 65 000 EUR.

The number of used TA days was 286.

The change in offered TA days was: from 641 to 286.

***Partner 7 FINI:***

Number of person-days offered at FINI was 823 in the GA (equals to 31 701,96 EUR) for the whole project period. Since this is the first time that FINI was involved in the TA scheme, the estimation of the number of days to be offered was not an easy task and clearly resulted into overestimation of the access offered. One limiting factor at FINI was also the capacity to host the visitors. Therefore, the site decided to contribute excess days to the access pool equal to 40 056 EUR.

The number of used TA days was 286.

The change in offered TA days was: from 823 to 286.

***Partner 16 BIOFORSK:***

Number of person-days offered at Bioforsk was 834 in the GA (equals to 175 248,42 EUR) for the whole project period. Since this is the first time for Bioforsk to be involved in the TA scheme, the estimation of the number of days to be offered was not an easy task and clearly resulted into overestimation of the access offered. Secondly, Bioforsk is also a boreal forest site which was included to the targeted TA call for boreal forests, but still they were not able to attract as many users as they anticipated. Therefore, the station decided to contribute the excess days to the access pool equal to 104181,40 EUR.

The number of used TA days was 362.

The change in offered TA days is: from 834 to 362.

***Partner 23 SAMOYLOV:***

Number of person-days offered at Samoylov was 1033 in the GA (equals to 154 474,82 EUR) for the whole project period. The situation with Samoylov was already explained previously – the station renovation and the new Russian regulation for limiting the non-Russian researchers access to the station made it really difficult to get even few user groups to the station, and therefore the number of days offered was reduced by 553 days to 480 days. In the end, 110 person-days were used 110 at Samoylov in 2013 and 2014. Since AWI had underestimated their T&S costs, the funds left over from user-days were used to cover the visitor's T&S costs.

The number of used TA days was 110.

The change in offered TA days is: from 1033 to 110.

### **Partner 29 ANS**

Number of person-days offered at ANS was 2120 in the GA (equals to 284 080 EUR) for the whole project period. However, the stations capacity to host the users as being very popular station has limited the number of access visitors. Therefore, the station manager decided to contribute the excess days to the access pool equal to 105 676 EUR.

The number of used TA days was 1363.

The change in offered TA days is: from 2120 to 1363.

### **The days redistributed in 2013 and 2014 via the access pool system has been used by partners (redistributed amount of money):**

- partner 2 NERI (55173 EUR)
- partner 9 SU (42383 EUR)
- partner 11 UH (49258 EUR)
- partner 13 UC (22597 EUR)
- partner 15 UO (17263 EUR)
- partner 18 NERC (1390 EUR)
- partner 19 AUI (11803 EUR)
- partner 20 YSU (13797 EUR)
- partner 21 IBPC (25482 EUR)
- partner 22 MSU (14962 EUR)

Total : 254108 EUR

Note: these numbers don't include the redistribution of SAM days that was conducted already in 2011.