

AnaEE

Infrastructure for Analysis and Experimentation on Ecosystems

Grant Agreement Number: 312690
SEVENTH FRAMEWORK PROGRAMME
CAPACITIES
RESEARCH INFRASTRUCTURES
COMBINATION OF CP & CSA

DELIVERABLE D2.1

Deliverable title: AnaEE vision

Abstract:

The services AnaEE will deliver to its various users have been defined. We elaborate on the added value that the distributed infrastructure AnaEE would bring compared to the current spread of platforms; we suggest tools to deliver services efficiently and with the highest added value. The survey results (Annex II and III) helped the elaboration of the AnaEE Strategic Vision. Beside setting the societal context of AnaEE, the experimental approach to be followed, the services to be provided, and the complementarity with other infrastructures, a scheme of AnaEE has been defined. A data base of >1000 AnaEE potential stakeholder has been installed and their characteristics and expectations will be analyzed through questionnaires. A first analysis related to the scientific users (117 responses received as of October 2013) of AnaEE has been performed. A detailed analysis of these responses is provided. The adjustment other workpackages workplan was provided through the participation of all workpackages to the workshops and writings of WP2, and in particular at the Venice meeting in October 2013.

Due date of deliverable: Month 12

Actual submission date: Month 15

Start date of the project: November 1st, 2012

Duration: 42 months

Organisation name of lead contractor: Fondazione Edmund Mach

Contributors: Francesco della Porta (Analysis), Jacques Roy (Vision), Francesco Fracaro (Survey and Data Processing)

Revision N°: Vfinal

Dissemination level:

| | |
|--|-------------------------------------|
| PU Public (must be available on the website) | <input type="checkbox"/> |
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| RE Restricted to a group specified by the consortium (including the Commission Services) (precise to whom it should be addressed) | <input type="checkbox"/> |
| CO Confidential, only for members of the consortium (including the Commission Services) | <input type="checkbox"/> |

| Revision N° | Date | Changes between different versions | Distribution (who have reviewed) |
|-------------|------------|------------------------------------|----------------------------------|
| V1 | 2013/12/16 | | Francesco Fracaro |
| 2 | 2014/01/13 | | Francesco della Porta |
| | | | |

The authors would like to acknowledge and thank all the contributors to this Deliverable, in particular: Claus Beier, Jane Hawkins, Jean Clobert, Jean Francois Le Galliard. In addition, WP2, WP3, WP4, WP5 participants and all other members of the AnaEE Steering Committee.

STAKEHOLDERS SERVICE ANALYSIS

Services required by the first class of users (scientists) have been based on survey responses and are described in the next sub-sections.

Services offered to other classes of users (Education, Government, Business, and Society at large) are broadly described in the AnaEE VISION document, and will be confirmed through future, repeated surveys. The AnaEE VISION document classifies non-science users in two groups: **national stakeholders (Table T2), and European policy makers and industry (Table T3)**. Here is the broad list of services AnaEE envisions to provide to each:

| T2. National Stakeholders | |
|----------------------------------|--|
| | a. Higher international visibility of national / regional infrastructures, expertise, research programs, and data; |
| | b. Technical and organizational support to maximize the efficiency and effectiveness of data, models and scientifically solid syntheses of experimental ecosystem research for academic, education and commercial users; |
| | c. Definition and standardization of criteria for cost effective procurement of the advanced equipment needed for AnaEE platforms; |
| | d. Capacity building for assessing potential adaptation and mitigation strategies for climate change and loss of biodiversity in agro-ecosystems, forestry and freshwater ecosystems. |

| T3. European policy makers and industry | |
|--|---|
| | a. Efficient, <u>organized access to complementary competencies</u> within the scientific community analyzing the impact of global changes on ecosystems |
| | b. <u>Experimental verification</u> of hypotheses, technologies, and policies aiming at mitigating unwanted effects |
| | c. Reliable results expressed through <u>accepted standards</u> and comparable formats |
| | d. <u>Training</u> of highly qualified personnel at the regional experimental platforms |
| | e. Coherent guidelines and specific indicators to track, measure, and assess ecosystem services impacts and dependencies. <u>Support to decision processes in policy and business</u> |
| | f. Improved interface among science, policy makers and industry; <u>knowledge sharing of impact, dependency, and response</u> of economic activities on ecosystem services |
| | g. <u>Stimulation of innovation and growth</u> of companies involved in measuring and monitoring ecosystem services, at both regional and multinational level |

1.1. General Users Preferences towards services (Q. 13, 14, 15)

“For each of the following ecosystem types, please state how related it is to the activities/interests of your group/department:”

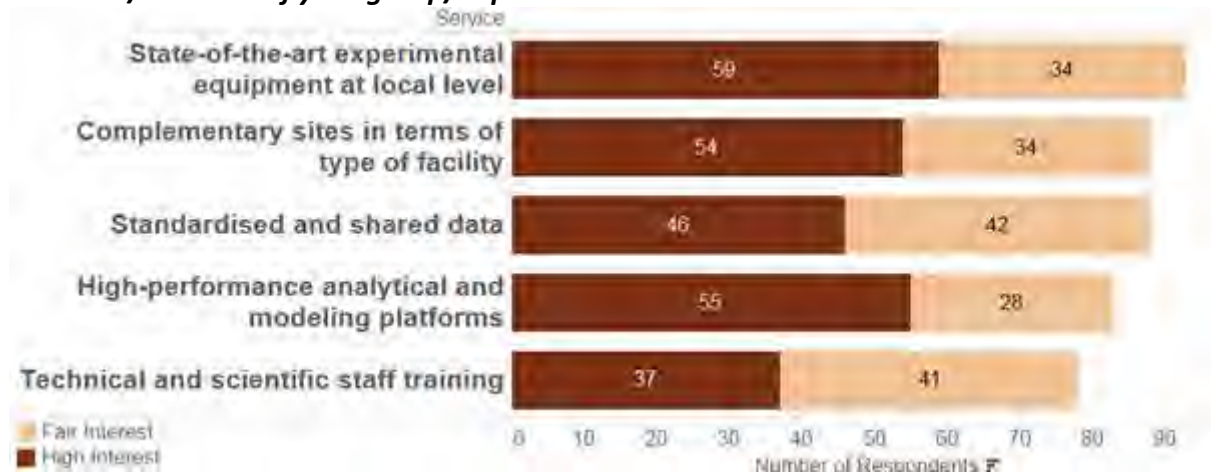


Figure 1

Second question asked (Question 14) – Introduced later, while survey was ongoing:

The above services are further itemized like in the table below. Please provide a rating for those services. Use a 1-8 scale with 8 indicating the highest value and 1 indicating the lowest value for the service. (If you need to understand these services in more detail, please find their description at the bottom of the page)

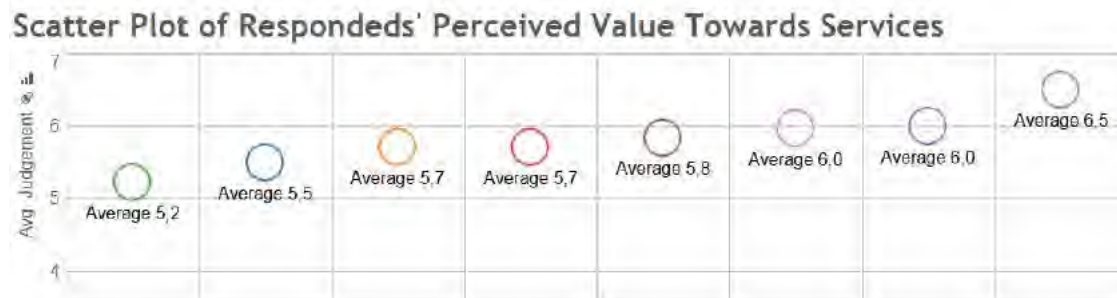
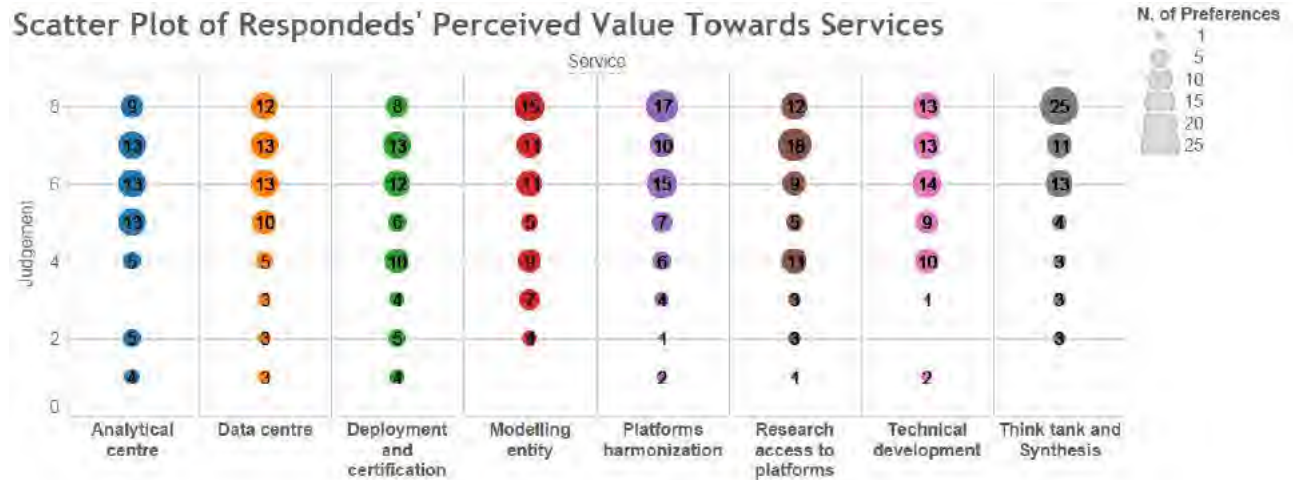


Figure 2

Third Question Asked: (Question 15) Introduced later, while survey was ongoing

For the same services briefly described in Question 12 above (or described in more detail at the end of this page), please indicate which is in your opinion the optimal allocation of an hypothetical annual budget of 2 Million Euros. Funds could come from either the EU or from other sources. (Please express the allocation in [K€] Thousands Euros)

38 Respondents:

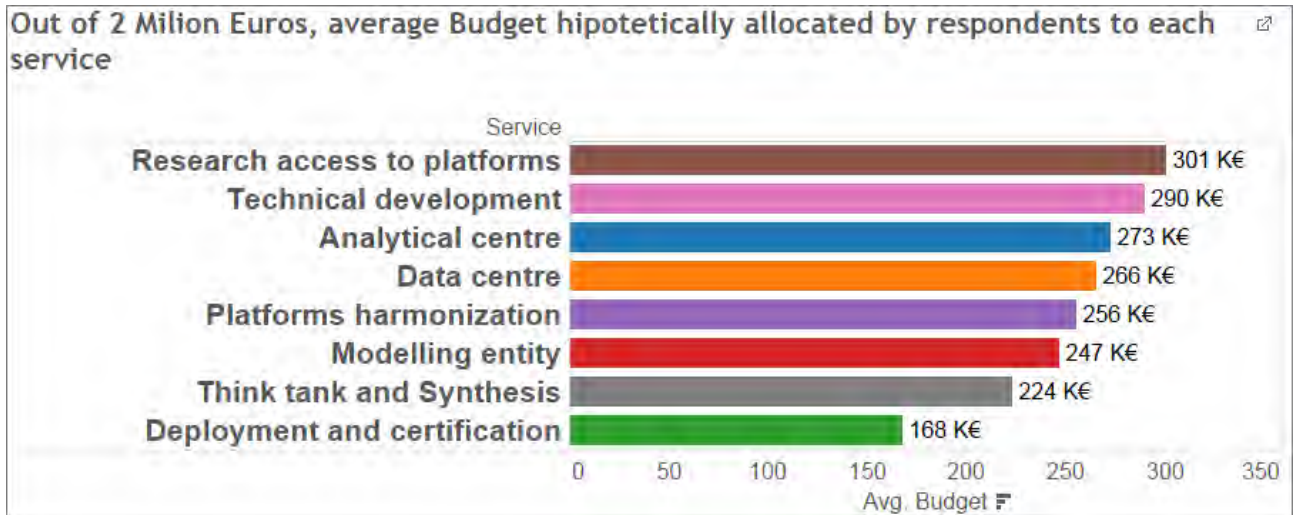


Figure 3

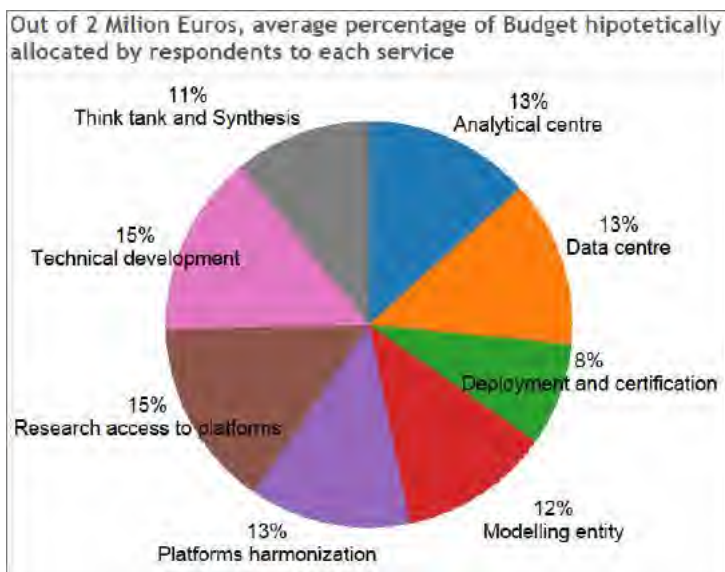


Figure 4

1.2. Services preference across Ecosystem Type (Q14 and Q11)

In this subsection the aim is to investigate whether there are specific services that are considered more important in some ecosystems.

In order to do so it was necessary to do a cross analysis between Survey Question 14 (Users' preference toward Services) and Question 11 (Affinity of users' research activity towards ecosystem). For the first question 63 respondents expressed their judgment on each service value using a scale from 1 to 8, with 8 indicating the highest value. On the other hand Question 11, 101 respondents expressed the affinity of their research activity towards ecosystem using the four textual judgment "Highly Related", "Fairly Related", "Poorly Related" and "Not Related".

Since we are now cross analyzing the two questions, we want to obtain, for each ecosystem, a judgment on services that needs to consider only respondents whose activity is highly or at least fairly related to the same ecosystem. Therefore for each ecosystem all service judgments expressed by respondents whose activity is "not related" or "poorly related" to the ecosystem are excluded.

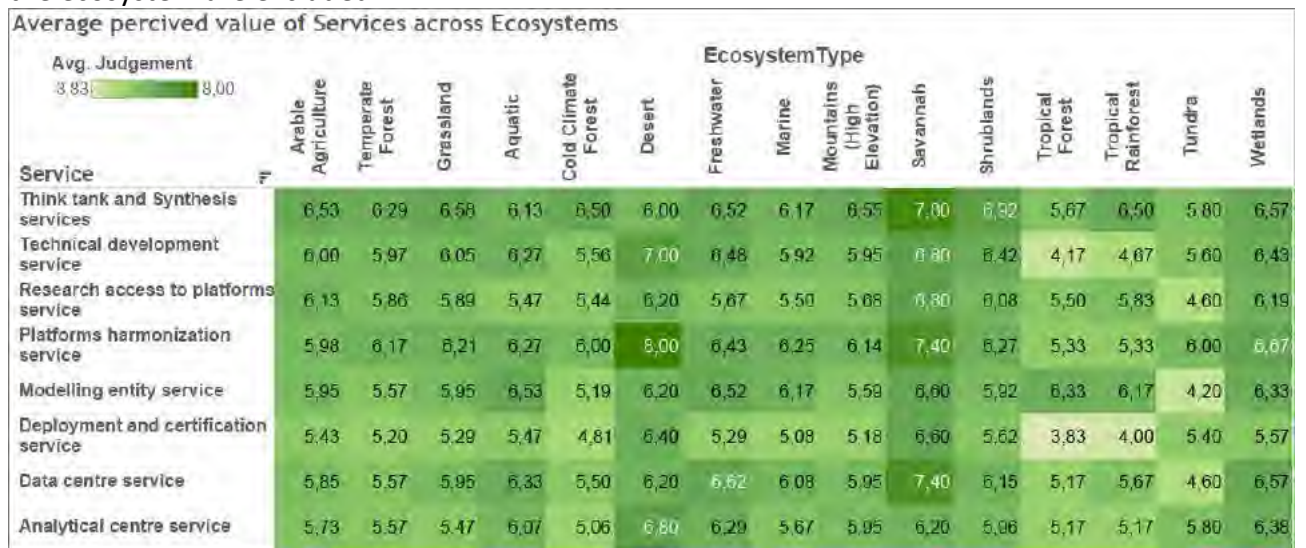


Figure 5

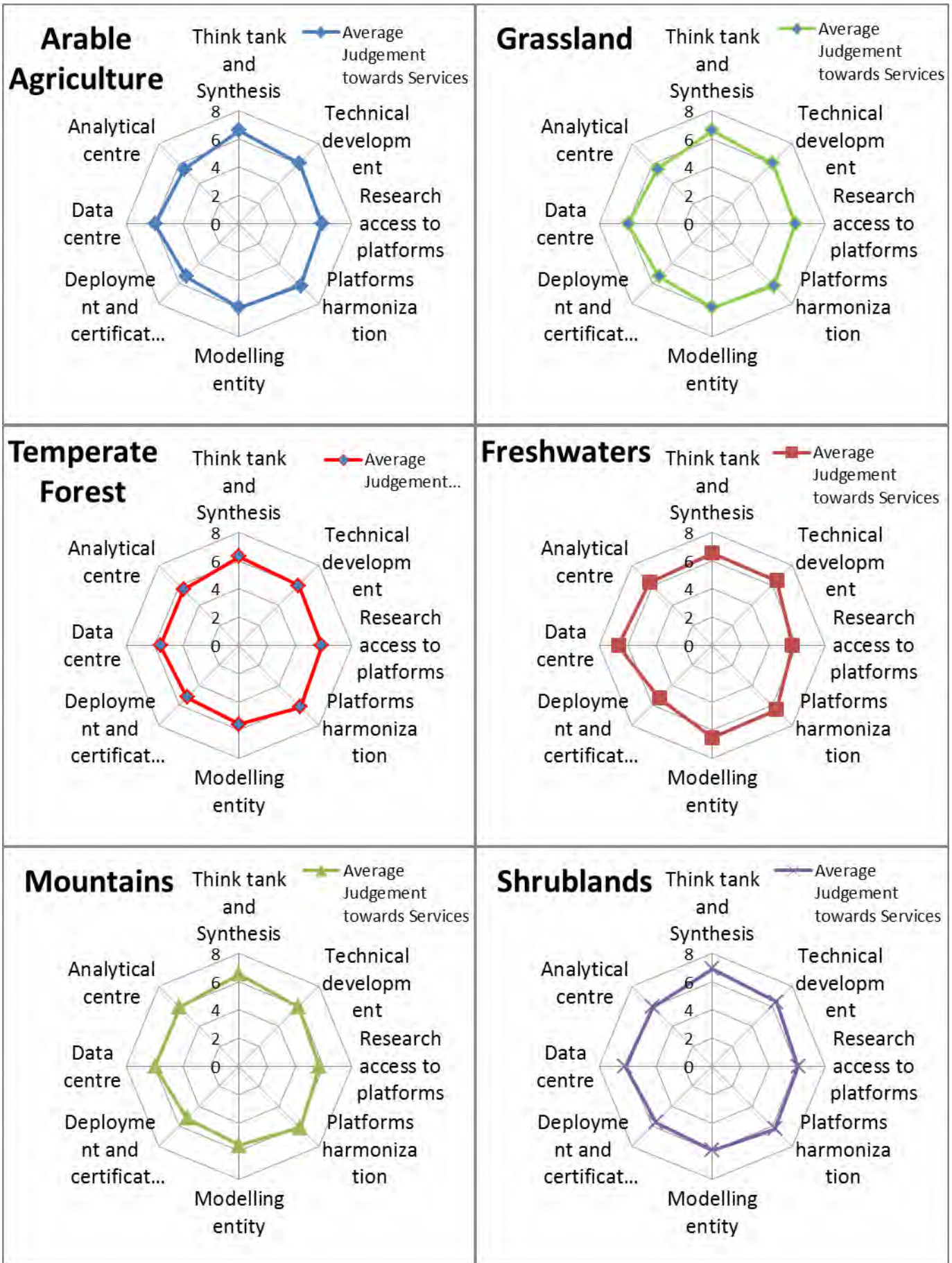


Figure 6

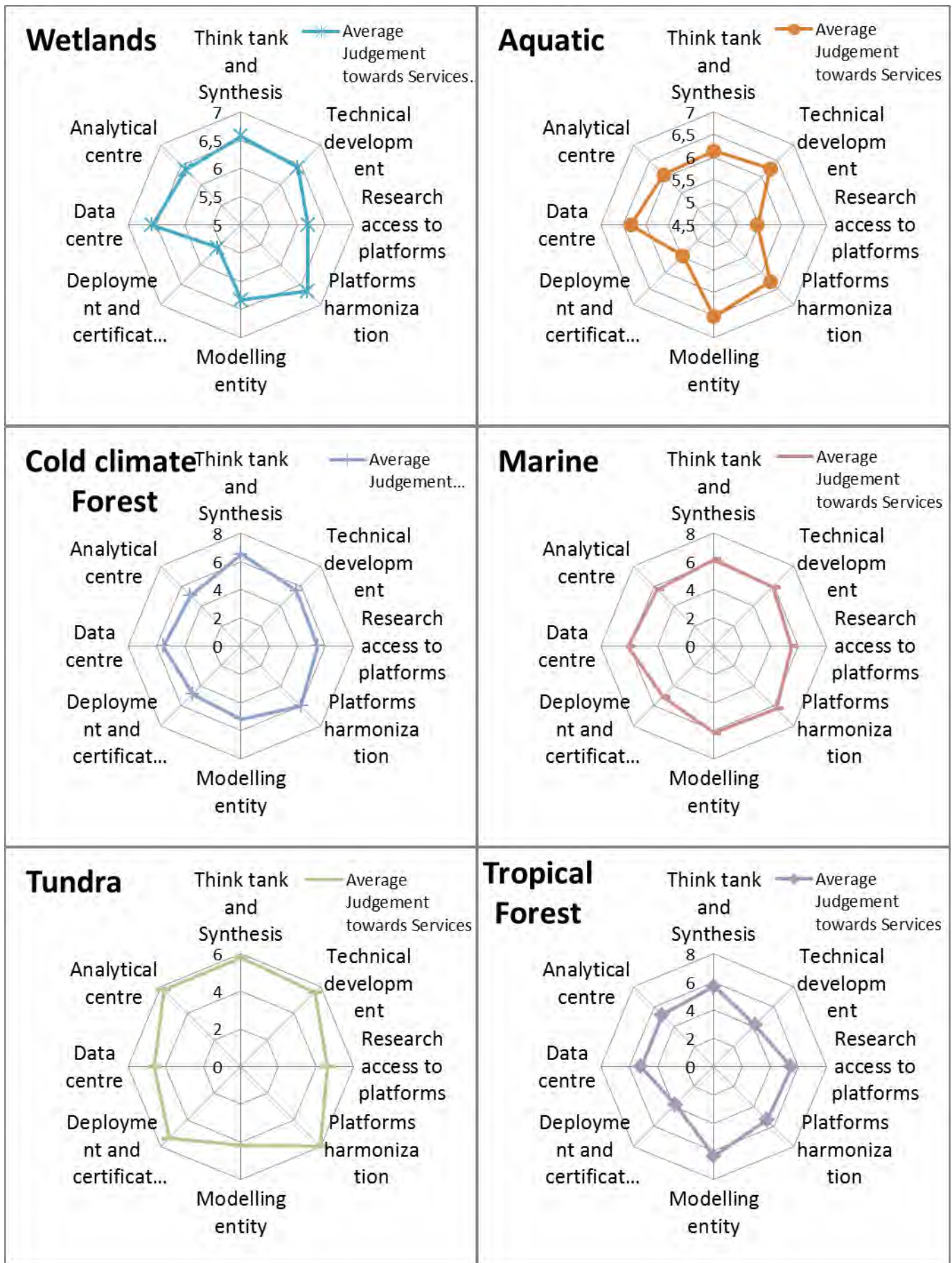


Figure 7

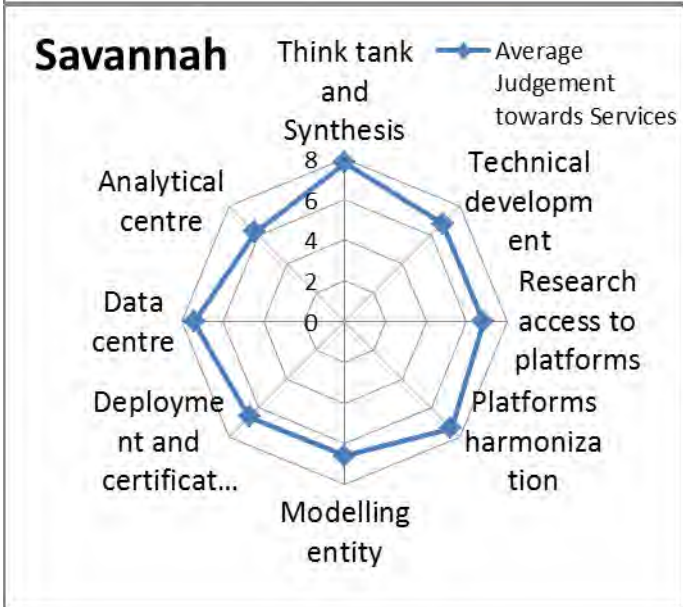
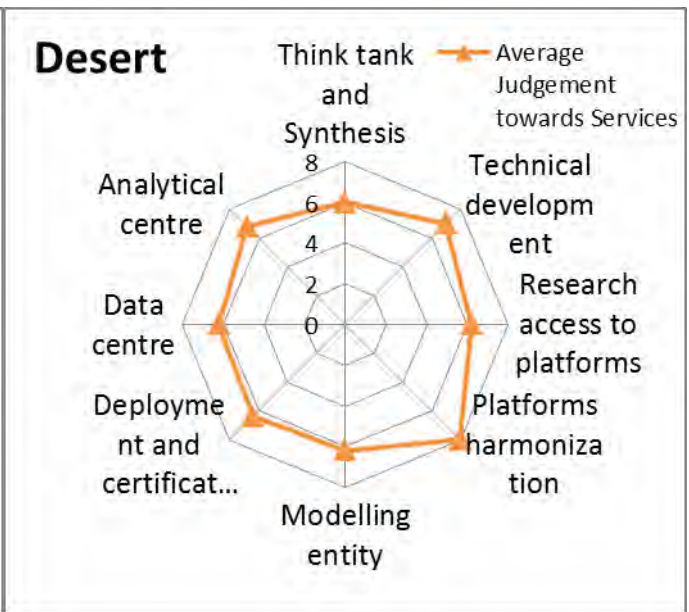
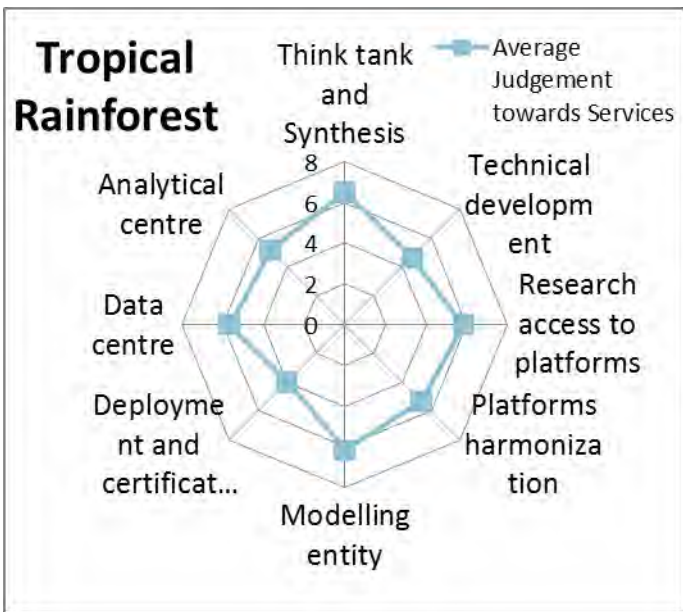


Figure 8

Ecosystems group 2: High Value for Analytical Centre

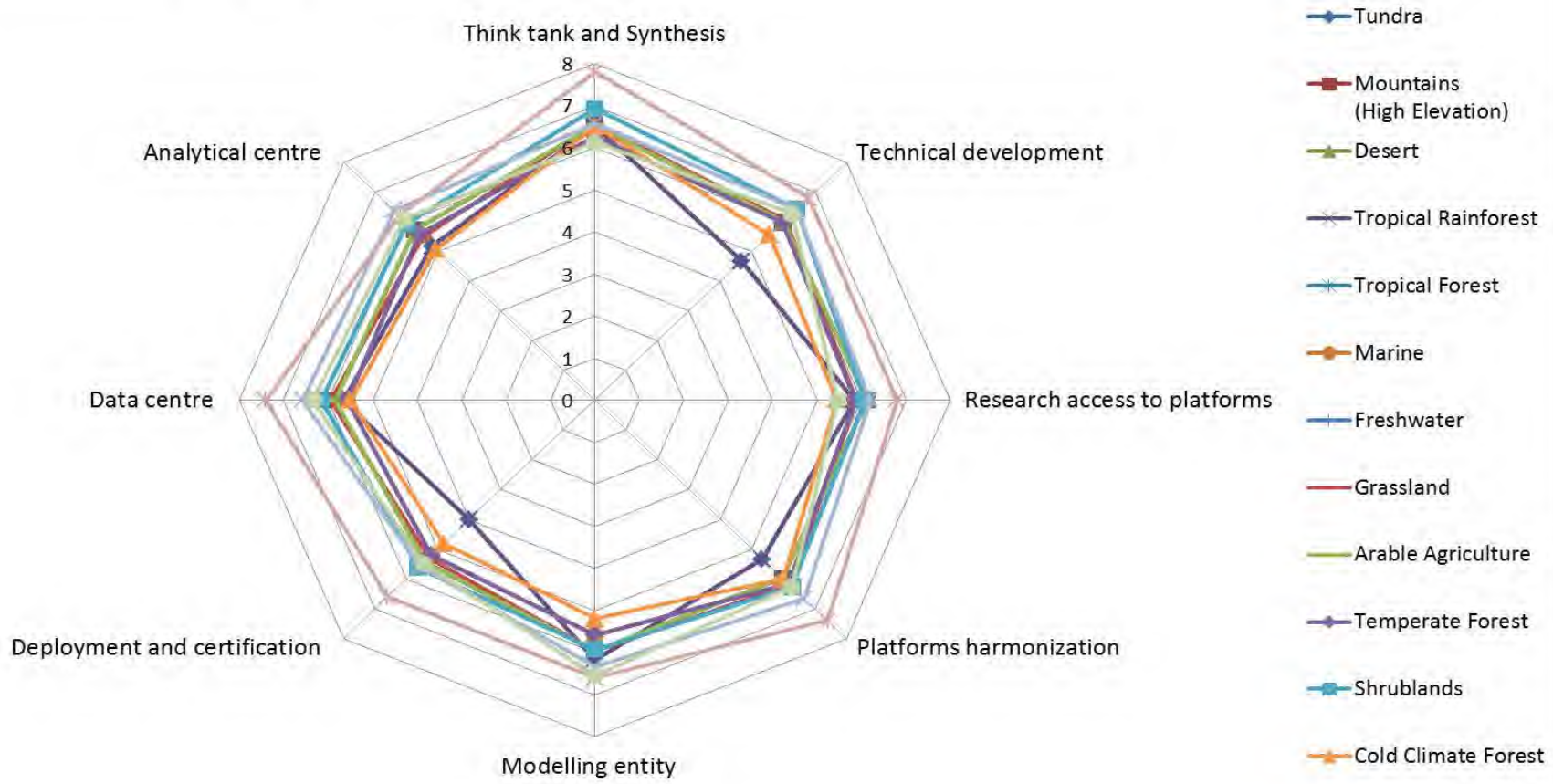


Figure 9



Figure 10

Think Tank Services and Platform Harmonization are almost always ranked in the top 3 services (a part from Savannah). Data Centre service is also ranked among the 4 most important services for most of the ecosystems.

Going further, 4 ecosystem groups with similar preferences were also assembled, and reported in the chart of the next page. Namely:

- Ecosystem Group 1: High Value for Platform Harmonization
- Ecosystem Group 2: High Value for Data Centre
- Ecosystem Group 3: High Value for Modeling Entity
- Ecosystem Group 4: High Value for Analytical Platform.

Ecosystems group 1: High Value for Platform Harmonization

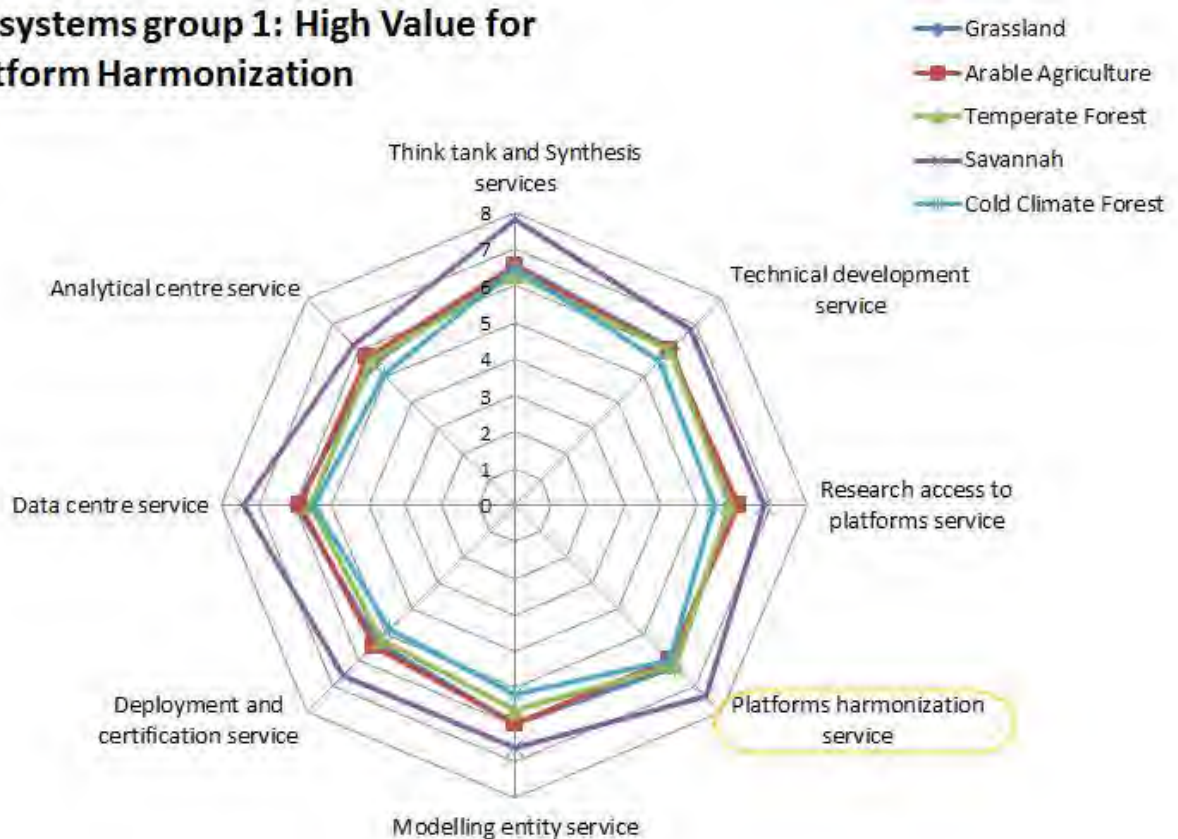


Figure 11

Ecosystems group 2: High Value for Data Centre

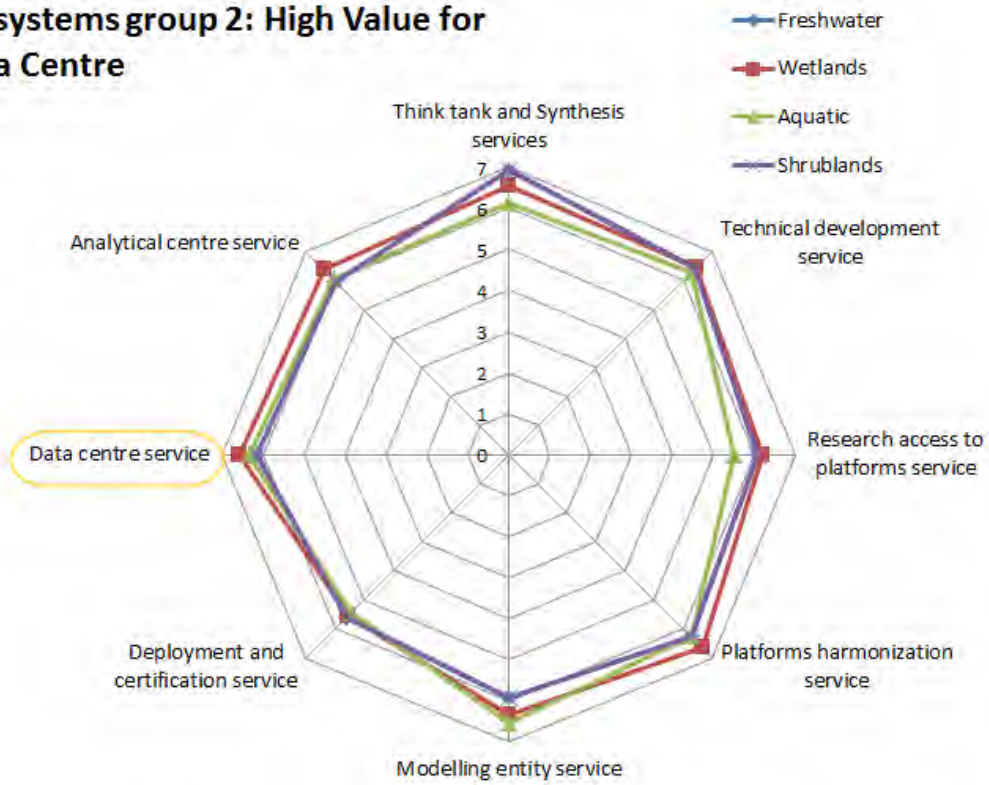


Figure 12

Ecosystems group 2: High Value for Modelling Entity

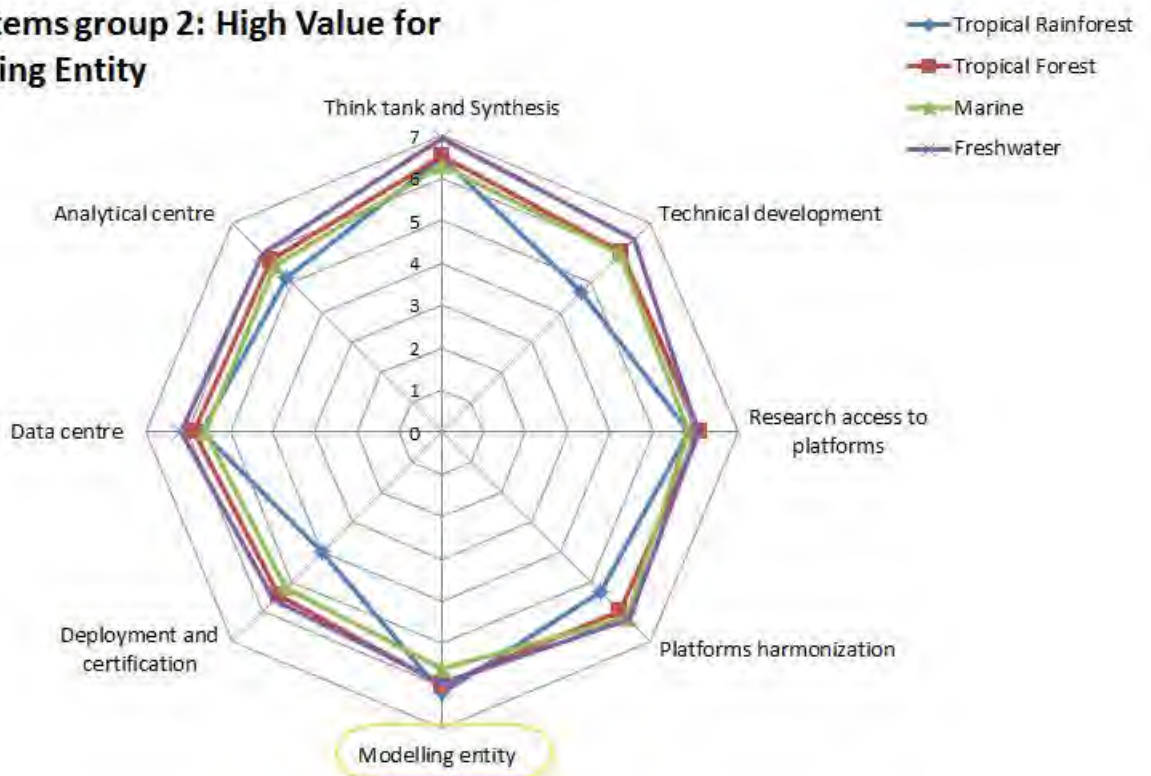


Figure 13

Ecosystems group 3: High Value for Modelling Entity

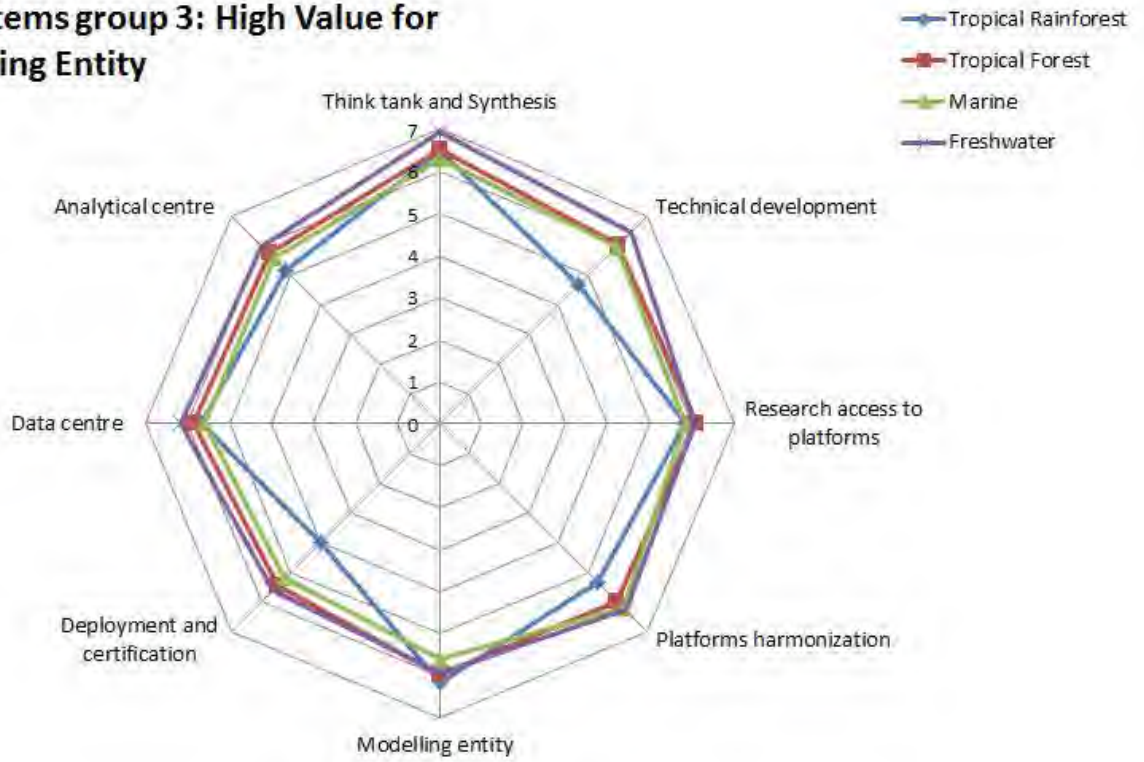


Figure 14

1.3. Services preference across Research Group Budgets (Q15 and Q22)

The following Chart shows the Average budget allocated to Each Service, out of a total budget of 2 Million Euros:

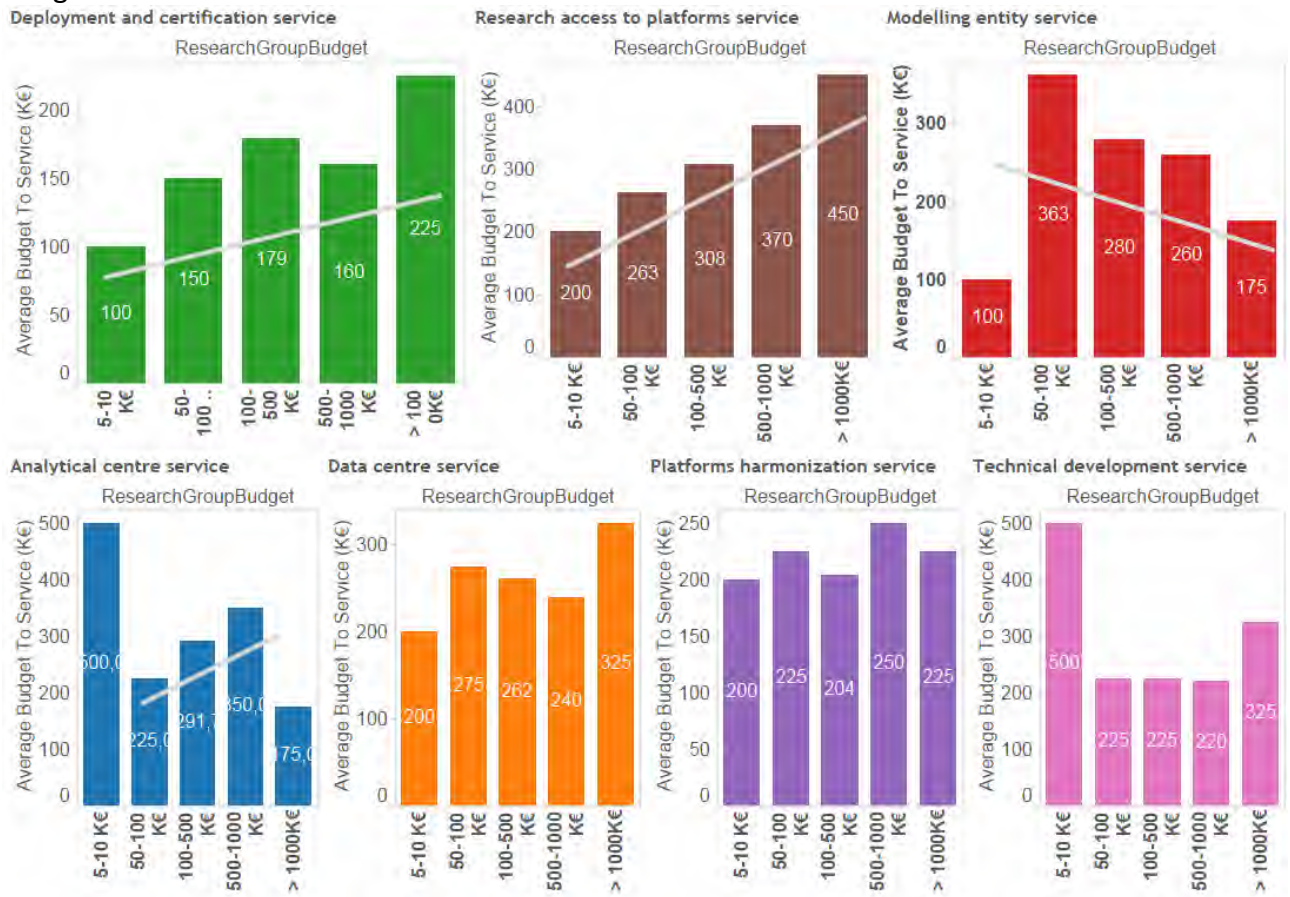


Figure 15

1.4. Services preference depending on RI ownership (Q14 and Q17)

Differential budget allocation in K€, depending on whether research groups manage or don't manage a RI

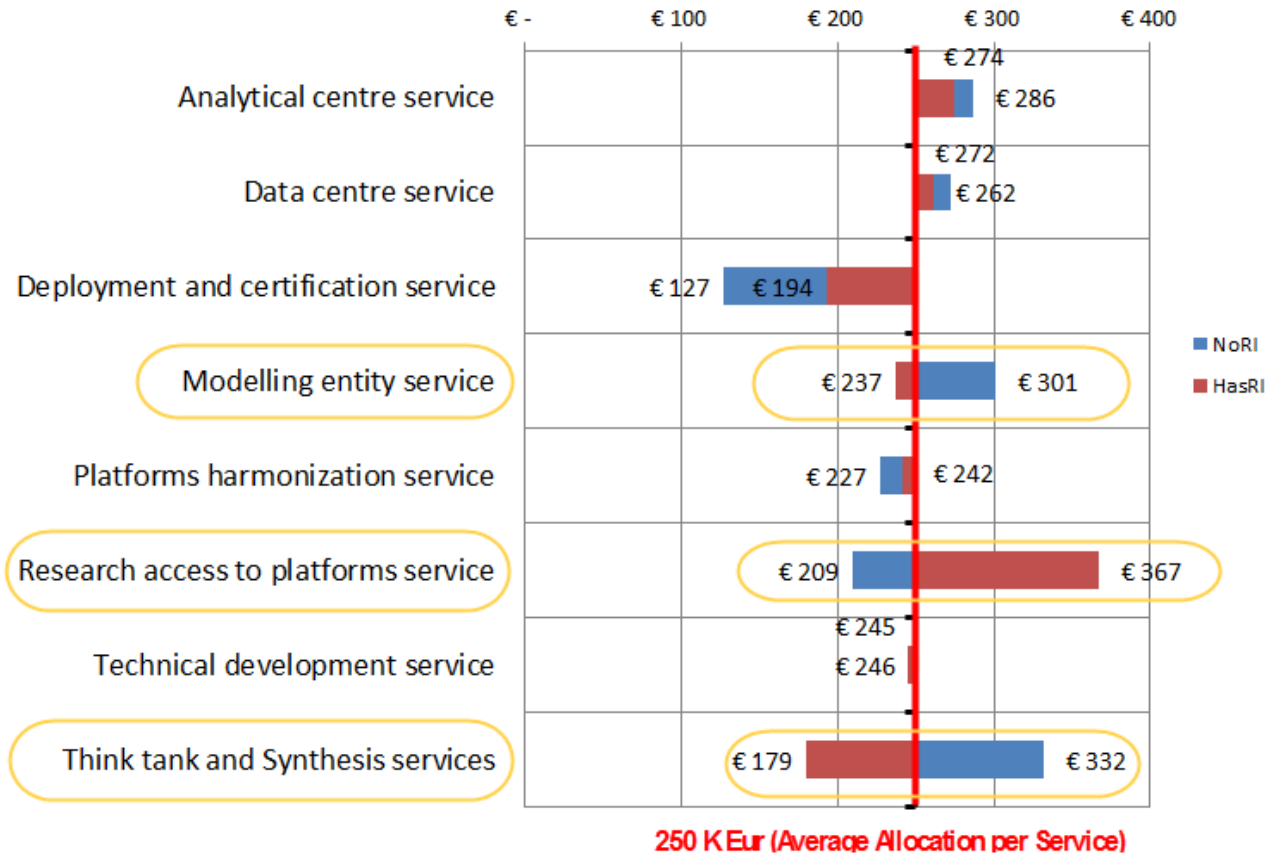


Figure 16

Insights:

- Think Tank service always important
- Modeling and data centre are more important for users that don't own or manage a Research Platform
- Research Access and Platform harmonization are important for groups already managing a platform