EuroCC@Turkey HPC LANDSCAPE SURVEY RESULTS

The main goal of the studies of the National Competence Centre established in our country under the coordination of TUBİTAK ULAKBİM with the support of EuroCC is to reveal existing competencies, to identify needs, to provide training and consultancy, and to initiate a university-industry partnership.

In this context, the “National Competence Centre Land Scape Survey” was prepared to resolve the competencies and requirements in HPC in our country and the survey was made available to university and private sector participants through various announcement channels.

624 people participated in our survey. While the vast majority of participants are from the private sectors, the second vast majority consists of researchers from universities with different titles. Since there are only 7 participants from public institutions, it is very difficult to make a general assessment when considered as a sample group. Therefore, rigid evaluations about this group are avoided and generally, no comment has been made. All the questions in this questionnaire have been examined under certain headings in the sections and the results are discussed with graphics.

The evaluations made in the sections are summarized below.

- In the country, HPC services are provided mainly by three different providers which are university, public and private sector. However, TRUBA is the biggest infrastructure provided by the public, both in terms of size and the opportunities it provides for academic studies.
- The provided HPC services are used by three groups. The usage rates in universities are quite high when compared to other groups. It has been observed that this situation is slightly different in the private sector. Workstations or high-competence computers are perceived as HPC services. The majority of this group stated that they do not have any information about what HPC service is. As a result, we can say that while the number of university researchers who are familiar with HPC terms, in general, is quite high, there is almost no awareness among the private sector group.
- Researchers from universities stated that they mostly use HPC in the fields of simulation, data analysis, optimization, big data and artificial intelligence, data mining and neural networks. The distribution of the working areas of the private sector overlaps with the study areas of the university. This parallelism shows that if strong communication is established between the university and the private sector, the private sector can transfer technology in these areas more easily.
- Universities have stated that they meet the HPC needs for their studies in the above-mentioned research areas, mainly by the local resources TRUBA and UHEM. In addition to this, there are also participants from this group who make calculations in HPC clusters that are established in their institutions. On the other hand, the private sector used mostly work stations that are available in their institutions. On the other hand, the private sector uses mostly workstations that are available in their institutions. There are also private sector users who have HPC cluster systems in their institutions. This shows that the private sector has invested in the use of HPC technology and will benefit even more from HPC in the future.
- We observed that among both university and private sector participants, the reasons for not using YBH services were common. Generally, the participants stated that they

do not benefit from this technology because they do not have HPC-qualified personnel and they cannot access the necessary documents and experts for HPC technology. With this project, it can be planned to solve these problems by establishing efficient communication tools between experts and users in line with the complaints of the participants.

- As discussed in the requirements section, we see that there is a lot of researcher/employee potential in our country who want to benefit from these services. We saw that we received a high percentage of positive answers to our questions about training requests from among the groups. We think that the awareness levels within the groups can be comparable thanks to the training to be held. Besides, we have determined with this survey that the private sector is not aware of what can be done with HPC technology. It is thought that the meetings to be held together with the expert pool formed by researchers from universities will be able to transfer this HPC service to their jobs more comfortably.