**The summary of results of the GAP analysis**

The questions have been prepared on the basis of the documents „The European Charter for Researchers“and „The Code of Conduct for the Recruitment of Researchers“ (40 chapters of these documents, Annex 1). The list of questions is attached in Annex 2 with their numbers and number of chapters relevant to the EU Charter to which the question is related. The list of questions has been supplied with ten additional questions not related to the EU Charter directly (A1-A10), but these questions arise from demands of the Institute (IBP), and could be potentially important for HR Award (Annex 2, see other questions). The questionnaires were anonymous, but they contained information on the career stages (from laboratory staff up to department leaders and technical personnel – the list is attached in Annex 3 and related to EU categories R1-R4).

Answers to the questions were 1 - yes, 2- neutral opinion, 3 - I am not sure or not informed, 4 - the question does not relate to me.

The analysis consisted of the determination of the number of answers (n) and the number of positive answers „yes“ (a), see Table 1. The ratio a/n was determined for individual career stages as well as for the whole IBP (orange color in the Table). The questions are listed according to their average value for the whole institute. The questions with largely positive answers are shown in green color, the other in red color. We have compared individual career stages using column plots (Fig. 1) where you can see some examples. In some cases, clear dependence on the position could be established. For example, the questions „Should be the Institute Council meetings partially public“ or „Do you need more safety measures at IBP“have been approved more by lower career stages. In the case of question on the popularization, the differences among career stages are probably related more to statistical fluctuations, as well as in the case of plagiarism where the answers are negative, and this is obviously no problem for IBP.

The consistency of the answers has been checked using the plot a/n versus „question position“ in Table 1. For average IBP answers, we have a decreasing function (Fig. 2) as expected. The variations of different career stages are mostly of statistical origin (with some exceptions mentioned above) and, therefore, we concluded that the results of the questioner are primarily reliable and basically not dependent on the career position of the respondents. Answers for additional questions are shown in Table 2.

In both cases, gap analysis direct questions and additional questions, the most positive answers that need to be solved, are listed in Table 3 in order to use them in the preparation of the Action Plan (AP). The questions requiring some action are shown in green color, and they are elaborated in the AP.

**Table 1. GAP Analysis for different career stages**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Question no. | 40 | 41 | 35 | 25 | 5 | 43 | 20 | 36 | 21 | 8 | 23 | 44 | 42 | 19 | 10 | 39 | 22 | 37 |
| All Answers  | 122 | 106 | 84 | 39 | 69 | 25 | 82 | 104 | 78 | 71 | 61 | 30 | 99 | 62 | 68 | 107 | 60 | 97 |
| Answers Y | 120 | 98 | 76 | 35 | 61 | 22 | 72 | 91 | 68 | 60 | 51 | 25 | 82 | 51 | 55 | 86 | 46 | 70 |
| IBP Average | 0,98 | 0,92 | 0,9 | 0,9 | 0,88 | 0,88 | 0,88 | 0,88 | 0,87 | 0,85 | 0,84 | 0,83 | 0,83 | 0,82 | 0,81 | 0,8 | 0,77 | 0,72 |
| Category Lab | 1 | 1 | 1 |   | 1 | 1 | 1 | 1 | 1 | 1 |   |   | 1 | 1 | 1 | 1 |   |   |
| Category V1 | 1 | 1 | 1 | 1 | 1 | 0,5 | 1 | 0,75 | 0,75 | 0,5 | 0,67 |   | 0,8 | 0 | 0,75 | 0,67 | 1 | 0,67 |
| Category V2 | 0,91 | 0,92 | 0,94 | 0,91 | 0,89 | 0,95 | 0,94 | 0,8 | 0,89 | 0,73 | 0,93 | 1 | 0,82 | 0,88 | 0,67 | 0,71 | 0,81 | 0,56 |
| Category V3 | 1 | 0,81 | 0,9 | 0,88 | 0,82 | 0,5 | 1 | 0,92 | 1 | 0,85 | 0,79 | 1 | 0,67 | 0,94 | 0,85 | 0,75 | 0,81 | 0,53 |
| Category V4 | 1 | 1 | 1 | 1 | 1 |   | 0,88 | 0,67 | 1 | 0,8 | 0,86 | 0 | 0,7 | 1 | 0,89 | 0,8 | 1 | 0,67 |
| Category V5 | 1 | 1 | 0,87 | 0,75 | 1 |   | 0,78 | 0,95 | 0,83 | 0,75 | 0,8 | 1 | 1 | 0,92 | 0,6 | 0,95 | 0,9 | 0,89 |
| Category V6 | 1 | 1 | 0,92 | 1 | 0,78 |   | 0,67 | 1 | 0,63 | 0,92 | 0,83 | 0,67 | 1 | 0,67 | 0,67 | 0,94 | 0,56 | 1 |
| Category VO | 1 | 1 | 1 | 1 | 1 | 1 | 0,8 | 1 | 1 | 1 | 0,67 | 1 | 0,82 | 0,33 | 1 | 1 | 0,4 | 1 |
| Category THS | 1 | 0,5 | 0,33 | 1 | 0,85 |   | 0,77 | 0,33 | 0,75 | 1 | 1 |   | 0,5 | 0,33 | 1 | 0,57 | 1 | 0,5 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Question no. | 16 | 4 | 1 | 27 | 3 | 13 | 18 | 7 | 45 | 34 | 38 | 33 | 6 | 14 | 17 | 29 | 26 | 9 |
| All Answers  | 68 | 67 | 61 | 73 | 60 | 63 | 69 | 66 | 85 | 92 | 94 | 67 | 77 | 87 | 51 | 42 | 73 | 84 |
| Answers Y | 49 | 48 | 43 | 51 | 41 | 43 | 45 | 43 | 54 | 57 | 54 | 35 | 39 | 44 | 23 | 18 | 29 | 32 |
| IBP Average | 0,72 | 0,72 | 0,7 | 0,7 | 0,68 | 0,68 | 0,65 | 0,65 | 0,64 | 0,62 | 0,57 | 0,52 | 0,51 | 0,51 | 0,45 | 0,43 | 0,4 | 0,38 |
| Category Lab | 1 |   |   | 1 | 1 | 1 | 1 | 0 | 1 | 0,5 | 0 | 0 | 0,5 | 0,67 |   |   | 1 | 0 |
| Category V1 | 1 | 1 | 1 | 0,5 | 1 | 0 | 1 | 0 | 1 | 1 | 0,5 | 1 | 0,5 | 0,25 | 0,5 | 0,5 | 0,5 | 0,5 |
| Category V2 | 0,54 | 0,69 | 0,67 | 0,88 | 0,5 | 0,57 | 0,93 | 0,67 | 0,79 | 0,53 | 0,47 | 0,67 | 0,54 | 0,67 | 0,5 | 0,5 | 0,44 | 0,36 |
| Category V3 | 0,83 | 0,61 | 0,73 | 0,86 | 0,83 | 0,75 | 0,74 | 0,56 | 0,76 | 0,58 | 0,33 | 0,73 | 0,38 | 0,68 | 0,63 | 0,71 | 0,5 | 0,41 |
| Category V4 | 1 | 0,83 | 0,83 | 0,8 | 0,67 | 0,71 | 1 | 0,67 | 0,75 | 0,17 | 0,57 | 0,4 | 0,57 | 0,86 | 0,8 | 0,6 | 0,75 | 0,75 |
| Category V5 | 0,43 | 0,78 | 0,73 | 0,62 | 0,75 | 0,57 | 0,23 | 0,73 | 0,5 | 0,78 | 0,87 | 0,42 | 0,4 | 0,09 | 0,27 | 0,25 | 0,19 | 0,23 |
| Category V6 | 0,75 | 0,7 | 0,78 | 0,44 | 0,88 | 0,82 | 0,57 | 1 | 0,2 | 1 | 0,91 | 0,43 | 0,75 | 0,44 | 0,4 | 0,29 | 0,25 | 0,44 |
| Category VO | 1 | 1 | 1 | 1 | 0,5 | 0,8 | 0 | 1 | 0,4 | 1 | 0,67 | 0 | 0 | 0,33 | 1 | 0,2 | 0,25 | 0,5 |
| Category THS | 0,44 | 0,75 | 0,29 | 0,4 | 0,38 | 0,6 | 0,5 | 0 | 0,67 | 0,11 | 0,47 | 0,33 | 0,62 | 0,38 | 0,13 | 0,38 | 0,5 | 0,36 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Question no. | 11 | 2 | 32 | 31 | 30 | 46 | 15 | Av |
| All Answers  | 80 | 66 | 53 | 72 | 78 | 99 | 87 | 73,9 |
| Answers Y | 30 | 20 | 14 | 16 | 11 | 7 | 5 | 47 |
| IBP Average | 0,38 | 0,3 | 0,26 | 0,22 | 0,14 | 0,07 | 0,06 | 0,64 |
| Category Lab | 1 | 0 |   |   |   | 0 | 0 | 0,73 |
| Category V1 | 0,33 | 0,33 | 0 | 0,5 | 0 | 0 | 0 | 0,62 |
| Category V2 | 0,39 | 0,14 | 0,33 | 0,23 | 0,25 | 0,04 | 0,09 | 0,64 |
| Category V3 | 0,5 | 0,22 | 0,36 | 0,21 | 0 | 0,07 | 0,06 | 0,65 |
| Category V4 | 0,86 | 0,4 | 0,33 | 0,25 | 0,25 | 0,22 | 0 | 0,7 |
| Category V5 | 0,14 | 0,33 | 0,21 | 0,19 | 0,12 | 0,05 | 0,06 | 0,59 |
| Category V6 | 0,31 | 0,56 | 0 | 0,23 | 0,09 |   | 0 | 0,65 |
| Category VO | 0 | 0,75 | 0,33 | 0,25 | 0,17 | 0 | 0,25 | 0,66 |
| Category THS | 0,38 | 0,23 | 0,5 | 0 | 0,2 | 0,13 | 0,08 | 0,49 |

**Table 2. Additional questions**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Question no. | A8 | A2 | A9 | A3 | A5 | A7 | A10 | A4 | A1 | A6 | Av |
| All Answers  | 89 | 61 | 83 | 71 | 53 | 114 | 26 | 75 | 54 | 83 | 16,5 |
| Answers Y | 59 | 38 | 49 | 37 | 27 | 58 | 11 | 27 | 14 | 14 | 7,77 |
| IBP Average | 0,66 | 0,62 | 0,59 | 0,52 | 0,51 | 0,51 | 0,42 | 0,36 | 0,26 | 0,17 | 0,46 |
| Category Lab | 1 |   |   | 0,5 | 0 | 0,25 | 1 | 0 |   |   | 0,46 |
| Category V1 | 1 | 0 | 1 | 0,25 | 0,5 | 0,8 | 0 | 0,33 | 0,33 | 0 | 0,42 |
| Category V2 | 1 | 0,73 | 0,94 | 0,56 | 0,91 | 0,88 | 0 | 0,38 | 0,07 | 0,18 | 0,57 |
| Category V3 | 0,7 | 0,4 | 0,67 | 0,64 | 0,08 | 0 | 0,67 | 0,67 |   | 0,88 | 0,52 |
| Category V4 | 0,6 | 1 | 0,6 | 0,6 | 1 | 0,67 | 0 | 0 | 0,43 | 0 | 0,49 |
| Category V5 | 0,67 | 0,5 | 0,5 | 0,5 | 0,5 | 0,23 | 0,17 | 0,17 | 0,29 | 0 | 0,35 |
| Category V6 | 0,5 | 0,67 | 0,45 | 0,8 | 0,67 | 0,38 | 0 | 0,43 | 0,55 | 0 | 0,44 |
| Category VO | 0,33 | 0,8 | 0,4 | 0,4 | 0,33 | 0,5 | 0 | 0 | 0,33 | 0 | 0,31 |
| Category THS | 0,33 | 0,67 | 0,27 | 0,38 | 0,29 | 0,71 | 0 | 0,17 | 0 | 0,22 | 0,3 |

**Fig. 1. Comparison of answers for different career stages**

**Fig. 2. The dependence of the a/n value on the position of the question is in Table 1. The IBP average is compared with V2, V4 and V5 career stages.**

**Table 3. Positively answered questions**

|  |  |  |
| --- | --- | --- |
| 40 | Knowledge of the safety rules | 0,98 |
| 41 | Popularization of the results | 0,92 |
| 35 | Freedom of the research at IBP | 0,90 |
| 25 | Integration of foreign scientists at IBP | 0,90 |
| 5 | Improvement of collaboration between departments | 0,88 |
| 43 | Relations between PhD student and his supervisor | 0,88 |
| 20 | Involvement of IBP in ecological activities | 0,88 |
| 36 | Knowledge of ethical principles | 0,88 |
| 21 | Improvement of collaboration with application sphere | 0,87 |
| 8 | The need of better infrastructure | 0,85 |
| 23 | Increase of the number of foreign scientists lectures | 0,84 |
| 44 | Further education of researchers | 0,83 |
| 42 | Popularization of the results | 0,83 |
| 19 | Increase of the mobility of scientists | 0,82 |
| 10 | The need of loyalty  | 0,81 |
| 39 | Evaluation of the research | 0,80 |
| 22 | Competition in magister degree  | 0,77 |
| 37 | Knowledge of financial mechanisms | 0,72 |
| 16 | Kindergarten | 0,72 |
| 4 | Higher publicity of the results | 0,72 |
| 1 | The need to be involved in the decision on career growth | 0,70 |
| 27 | Translation of documents | 0,70 |
| 3 | Higher salaries  | 0,68 |
| 13 | The need of project department | 0,68 |
| 18 | The need of management courses | 0,65 |
| 7 | Better equipment for science | 0,65 |
| 45 | The course on statistics | 0,64 |
| 34 | Knowledge of the strategic goals of the Academy | 0,62 |
| 38 | Knowledge of the IP rules | 0,57 |
| 33 | Better PR activities of the IBP | 0,52 |
| 6 | An improvement of PI feedback  |   |   |   |   |   | 0,51 |
| 14 | Language courses |   |   |   |   |   | 0,51 |