PHD FELLOWSHIP STRATEGIC BASIC RESEARCH EVALUATION/ score grid with scoring descriptors - PRESELECTION

PHD FELLOWSHIP: SCORING DESCRIPTORS CRITERION “CANDIDATE” (PRESELECTION)

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</thead>
<tbody>
<tr>
<td>Unacceptable</td>
<td>Weak</td>
<td>Fair/Reasonable</td>
<td>Good/Very good</td>
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1.a. Study results (academic education)

Depending on whether the master studies are already concluded, master or bachelor percentiles (referring to their university study group) are to be provided by the candidates. In addition, detailed course scores should be added. Bachelor percentiles in particular should, if possible, be complemented by intermediate master study results. Students from non-Flemish universities should provide either a percentile score (if available), or at least their rank within their study group (if available). Also, percentiles referring to small study groups should carefully be dealt with.

In the “Study results narrative” section in the application though, candidates may refer to other evidence of having distinguished themselves during their studies. One may refer to upward trends during course of education, particular situations that may have (positively/negatively) influenced the study trajectory; also to results of additional studies/diplomas, (bachelor or) master thesis score, specific classes successfully attended, or other specific assets.

No scoring possibility

The study results do not stand out (may be at the head of the pack within study group, but below average in the applicants population).

- (e.g.) <P70 for relevant master diploma, and no other evidence of “standing out”;

- master students: (e.g.) <P80 for bachelor, and lack of other evidence of distinguishing elements, such as partial master results.

Rather good study results, situated well above average and at the subtop in the study group, as evidenced by:

- (e.g.): ≥P70 for relevant master diploma;

- master students: e.g. bachelor ≥P80 (and e.g. confirmed by intermediate master study results);

- other evidence that would categorize the candidate as equivalent to this group, e.g. a reasonable upward trend in academic results or other specific assets, as substantiated in the application.

(Very) good academic education record situated in the (broad) top of the study group, as evidenced by:

- (e.g.) P85 for relevant master diploma, or even P90 (score 5);

- master students: (e.g.) bachelor ≥P90 (confirmed by intermediate master study results);

- other evidence that would categorize the candidate as equivalent to this group, e.g. a strong upward trend in academic results or other specific assets, as substantiated in the application.

Top student with an excellent c.q. outstanding academic education record, as evidenced by:

- (e.g.) P95, or even top 1% (score 7), for relevant master diploma;

- master students: (e.g.) P95 bachelor with proven top start of master studies,

- other evidence that would categorize the candidate as equivalent to this group, as substantiated in the application.
### 1.b. Motivation and substantiation of relevant competences of the candidate

Does the application ("motivation statement") reveal a proper motivation and research interests? Assess the candidate’s (present as well as developing) scientific background and competences (including e.g. experimental skills, presentation or writing skills, commitment/perseverance, …) in relation to the proposed project and to the requirements for a PhD researcher (strategically thinking and innovation oriented) in general.

Assess further evidence in terms of a range of (passed as well as planned) scientific activities, experiences and (where applicable) achievements that may be relevant for this application. These may relate to the academic education or extracurricular activities, (ongoing or finished) thesis (master or advanced master), or (PhD) research already started. Assess –passed or planned- activities and experiences such as (e.g.) dedicated training, internships, presentations, collaborations, international contacts, mobility. For PhD fellows strategic basic research (SB), intersectoral mobility (e.g. internships and/or research stays in an industrial R&D environment) and (development of) entrepreneurial and innovation skills are an asset as well. (Intermediate) scientific results, publications, software, data, prototypes and any other meaningful scientific output and achievements may also be taken into account, as well as scientific recognition (e.g. thesis awards).

The assessment should take into account what might be expected from a last year master student vs. from a candidate with some scientific seniority.

#### No scoring possibility

- Expertise and skills apparently are not in line with what should be expected from a PhD student strategic basic research. Some crucial competences are missing and likely not to be acquired.

#### One or more of the following items apply:

- The application reveals fair/reasonable motivation regarding development towards a researcher. Less convincing evidence of (past and planned) activities and experiences.

- Scientific background and competences to carry out PhD research may be less present, and how they will be acquired is less well substantiated.

#### ALL of the following items apply:

- The application reveals a proper/strong motivation and research interests. This is evidenced by relevant (past/planned) activities, and experiences (e.g. training, internships, presentations, collaborations, international contacts, mobility, …).

- Relevant scientific background and competences to carry out PhD research have been acquired or are being built up (including e.g. experimental skills, presentation or writing skills, commitment/perseverance, …). Some first achievements (of master thesis/started PhD research…) may be an asset, e.g. (intermediate) results, publications, software, data, prototypes or other output, scientific recognition as by e.g. thesis awards, ….

- Requirements as in “good/very good”,

- □ the candidate has substantiated to have actively acquired all proper competences to successfully conduct PhD research. Clear plan to further enhance these capacities, including intersectoral mobility and entrepreneurial/innovation skills. Reveals clear motivation and drive.
### PHD FELLOWSHIP: SCORING DESCRIPTORS CRITERION “PROJECT” (PRESELECTION + INTERVIEW)

<table>
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#### 2.a Scientific quality, relevance and challenge, originality

A PhD project is scientifically challenging and relies on a proper and focused research question. It should significantly contribute to the current international state-of-the-art. To what extent is the proposal original and will it generate knowledge that goes beyond the state-of-the-art (e.g., novel theories, concepts or approaches, new methods, ...)?

**2.a.1 Scientific quality, relevance and challenge, originality:**

- The project is **out of scope**: it does not comply with the scope of the panel it was submitted to. *(preselection only)*.
- Project lacks an intellectual (PhD-worthy) challenge: an in-depth research question is missing.

#### 2.b Quality of the research methodology and feasibility of the project

To what extent is the proposed research methodology appropriate to achieve the goals laid down in the research project? To what extent is the outlined scientific approach feasible, bearing in mind a personal grant with a duration of four years? Finally the fit in the research team may be of importance (guidance and access to expertise).

**2.b.1 Quality of the research methodology and feasibility of the project:**

- Quality of research approach and planning is below par;
- Research activities are too limited for a four-year grant period;
- Project not feasible because of too many planned activities.
- Methodology and planning are flawed. Intrinsic feasibility is low, or the objectives are formulated too vaguely to evaluate feasibility.
- Project does not fit to an individual PhD project.
- Ties with/dependence of other researchers, groups or external partners may jeopardize feasibility.
- Research methodology reasonably well elaborated, but less well substantiated. Given some adjustments and risk control, project implementation appears to be feasible.
- Adequate, substantiated research methodology to achieve targeted results, logical set-up and realistic planning: feasible within the four-year time frame.
- Good fit of project in research group activities, giving candidate access to necessary expertise.
- Requirements as in “very good”, AND thorough identification of the research risks, with alternative research strategies and “fall back” research options.
**PHD FELLOWSHIP STRATEGIC BASIC RESEARCH EVALUATION/ score grid with scoring descriptors - PRESELECTION**

**PHD FELLOWSHIP SB: SCORING DESCRIPTORS CRITERION “APPLICATION POTENTIAL” (PRESELECTION + INTERVIEW)**

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| **Strategic basic research** in the context of a PhD grant stands for challenging and innovative research (at PhD level), which, if successful, may in the longer term lead to innovative applications with economic added value (for specific companies, for a collective of companies, or a sector, or in line with the Flanders 2025 transition areas (socioeconomic benefits)). Societal impact should always be linked to a (in)direct (macro)economic benefit. E.g. cost reductions in health care, higher education level, environmental impact… should be positioned in an economic context.

### 3.a Strategic importance of the research approach for the anticipated applications (= relevance)

**Does the research – if successful – contribute to the (on the long term) realization of the anticipated applications? Is the research approach the proper one to this purpose?**

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<th>All of the following items apply:</th>
<th>Requirements as in “very good”, and</th>
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<td>□ Strategic dimension is lacking, no orientation towards an economic finality;</td>
<td>□ Strategic dimension is present, but project is not well adapted to the anticipated utilization.</td>
<td>□ The strategic focus on economically relevant innovations is substantiated in rather broad terms. Research approach is reasonably or partially geared to the anticipated applications.</td>
<td>□ Best possible approach to achieve the intended applications. The latter are clearly the driving force behind the implementation approach.</td>
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<td>□ apparent mismatch between application potential and project content.</td>
<td>□ Strategic dimension based on an assumption for which there is as yet little concrete evidence.</td>
<td>□ The strategic focus on economically relevant innovations is clear, and well substantiated in the proposal. Suitable project approach to allow the anticipated utilization.</td>
<td>AND □ Project fits well in broader strategic basic research goals of the research group.</td>
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### 3.b Strategic importance of the potential applications for possible users (= impact)

**Assuming the research approach is effectively geared towards applications: is there a significant impact for industry and economy, for possible (end-)users? Is the impact of the intended applications described in the project application credible and achievable?**

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<th>One or more of the following items apply:</th>
<th>□ The anticipated application is not relevant for possible users nor is the proposed impact realistic;</th>
<th>□ The anticipated applications are economically relevant, they have a potential impact on possible users. The proposal exhibits certain flaws or gaps in the identification and/or elaboration of the (potentially present) applications.</th>
<th>Requirements as in “very good”, and</th>
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<td>□ The project is too strongly embedded in the strategic R&amp;D horizon of a single company (cfr. Baekeland programme at Flanders Innovation &amp; Entrepreneurship - VLAIO).</td>
<td>□ Application potential may be real but of less economic relevance and limited impact for the identified possible users.</td>
<td>□ If successful, the project is very likely to effectively contribute to economically relevant innovations within the identified companies and/or sectors, or even new economic activities. These are clearly defined and interpreted.</td>
<td>□ If successful, project could play a key role to disruptive innovations, implying substantial economic added value. Moreover, this goal is realistic.</td>
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<td>□ (Frank De Winne SB only) out of scope: no strategic importance for users in the space economy value chain.</td>
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<td>AND (score 7):</td>
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<td>□ A successful project may lead to a substantial economic added value for Flanders</td>
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