

EUROSPINE Taskforce Research

Grant Application Review – Scoring System

This scoring system was designed to encourage more reliable scoring of applications. Highly rating all applications greatly diminishes the ability of a reviewer or study section to communicate the scientific impact of an application. Therefore, reviewers who carefully consider the rating guidance provided in determining their scores improve not only the reliability of their scores, but also improve their ability to communicate the scientific impact of the applications reviewed.

Summary

- The EUROSPINE grant application scoring system uses a 9-point scale from National Institute of Health (US).
- A score of 1 indicates an exceptionally strong application with essentially no weaknesses. A score of 9 indicates an application with serious and substantive weaknesses with very few strengths; 5 is considered an average score.
- Ratings are in whole numbers only (no decimal ratings).
- The scale is used by the two assigned reviewers to provide a preliminary overall impact/priority score based on five individual criteria (Significance, Investigator(s), Innovation, Approach, Environment and budget). The other members of the review panel refer to the scale when discussing and allocating a final score.
- For the impact/priority score rating, strengths and weaknesses across all of the review criteria should be considered.
 - For each criterion rating, the strengths and weaknesses within that review criterion should be considered.
- Reviewers should consider not only the relative number of strengths and weaknesses noted, but also the importance of these strengths and weaknesses to the criteria or to the overall impact when determining a score.
 - For example, a major strength may outweigh many minor and correctable weaknesses.
- EUROSPINE expects that scores of 1 or 9 would be used less frequently than the other scores.

Preliminary Scores

- Before the review meeting, assigned reviewers will determine preliminary scores for each of the five scored review criteria and a preliminary score for the overall impact/priority
- The impact/priority score should reflect the reviewer's overall evaluation, which should be based on the evaluation of the 5 criteria.
- Reviewers should consider the full range of the rating scale and the scoring descriptors (see Scoring Guidance Table) in assigning preliminary and final scores
 - However, a reviewer should not assume that the applications assigned to him/her necessarily cover a broad range of scores, and should assign scores based solely on the strengths and weaknesses of each proposal
- An application does not need to be strong in all categories to be judged likely to have major impact
 - For example, a project that by its nature is not innovative may be essential to advance a field
- Final scoring will be done by the TFR members at the review meeting.

Overall Impact/Priority Score

- Discussed applications will receive numerical impact/priority scores from all eligible reviewers (e.g., without conflicts of interest)
- The impact/priority score for an application is based on each individual reviewer's assessment based on the five scored criteria plus any relevant additional criteria (e.g. regarding the protection and inclusion of human subjects; vertebrate animal care and welfare; biohazards, or criteria specific to the application)
- Reviewers should use the full range of the rating scale and spread their scores to better discriminate among applications
- Reviewers whose opinions of an application fall outside the range of those presented by the assigned reviewers and discussant(s) should ensure that their opinions are brought to the attention of the entire committee
- In addition, the Chairperson should ensure that all opinions are voiced before final scoring is conducted.

Reviewer Guidance and Chart

- The table gives a descriptive guide on how the strengths and weaknesses should be considered, and how they combine when assigning the overall rating score. It also defines the levels of weakness, and indicates an impact rating for the scores.
- The far right column provides a descriptive guide of how strengths and weaknesses are considered in assigning a rating
 - Minor weakness: easily addressable weakness, does not substantially lessen impact
 - Moderate weakness: lessens impact
 - Major weakness: Severely limits impact
- Impact (far left column) is the project's likelihood to have a sustained, powerful influence on the research field(s) involved:
 - High impact = 1 to 3
 - Moderate impact = 4 to 6
 - Low impact = 7 to 9
- Each review criterion should be assessed based on how important each review criterion is to the work being proposed
 - As a result, a reviewer may give only moderate rating to some of the review criteria but still give a high
 - Overall impact/priority score because the one review criterion critically important to the research is rated
 - highly; or a reviewer could give mostly high criterion ratings but rate the overall impact/priority score lower
 - because the one criterion critically important to the research being proposed is not highly rated.
- An application does not need to be strong in all categories to be judged likely to have major impact, e.g., a project that by its nature is not innovative may be essential to advance a field.

Scoring guidance table

Score	Descriptor	Additional Guidance on Strengths/Weaknesses
1	Exceptional	Exceptionally strong with essentially no weaknesses
2	Outstanding	Extremely strong with negligible weaknesses
3	Excellent	Very strong with only some minor weaknesses
4	Very Good	Strong but with numerous minor weaknesses
5	Good	Strong but with at least one moderate weakness
6	Satisfactory	Some strengths but also some moderate weaknesses
7	Fair	Some strengths but with at least one major weakness
8	Marginal	A few strengths and a few major weaknesses
9	Poor	Very few strengths and numerous major weaknesses
<p>Weakness guide <i>Minor weakness:</i> An easily addressable weakness that does not substantially lessen impact <i>Moderate weakness:</i> A weakness that lessens impact <i>Major weakness:</i> A weakness that severely limits impact</p> <p>Impact guide: Score 1 to 3 = <i>high</i> impact Score 4 to 6 = <i>moderate</i> impact Score 7 to 9 = <i>low</i> impact</p>		

These recommendations for reviewers are adapted from National Institute of Health (NIH USA 2010).