

SFU Interim Evaluation

Feedback on Draft Action Plans: bioCEED

Overview

The panel are pleased that bioCEED has adopted a positive stance to the SFU mid-term evaluation. The draft action plan shows that they have taken on-board a number of the panel's recommendations and have produced a coherent action plan for the second period of funding. The draft action plan shows that the majority of the efforts of the centre will shift from those outlined in the original bid to an alignment and optimisation of the different activities already undertaken and a 'mainstreaming' of these innovations. Succinctly put, bioCEED will *'change from being the driving force behind specific concrete innovations to a collaborative partner contributing support and research outcomes'*. The panel welcomes this change in focus, which reflects some of the recommendations made in the mid-term evaluation report

However, the panel feels that the action plan still could be developed further. In particular, the measures of success still largely focus on assessing activities and outputs rather than changes in practices and outcomes. This means there is currently very little assessment of the impact of the Centre. If the Centre is to be able to assess its contribution to changing educational practices then this need to be a central part of how it measures its success.

1. Vision

The vision for bioCEED in the second period of funding is clearly articulated. It is an extension of, but also distinct from, the vision stipulated in the original bid. This reflects the excellent work that the centre has already undertaken and also reflects the comments made in the mid-term evaluation report. The vision for educating tomorrow's biologists entails *'integrating the current knowledge, practical research and subject skills training, and the societal relevance of biology.'* This is both laudable and achievable. The focusing of the work of the centre on the integration of these areas should greatly benefit both the partner institutions and biology education in Norway more generally.

2. Centre objectives.

During funding phase 2, it is envisaged that bioCEED will focus on mainstreaming its activities and so will withdraw from many of its daily operations. However, the action plan does not outline specific actions from the centre that will ensure that this mainstreaming process can happen. Central to realisation of the Centre's vision will be rigorous review of the biology curriculum, and accompanying pedagogic approaches, combined with distributed leadership. Both the curriculum and leadership are considered in the objectives, but almost as discrete areas as opposed to core to the realisation of the vision. A number of the action points will only tangentially address the delivery of crucial outcome measures, and a number of the assessment criteria should be focused on assessing the mainstreaming process itself. Similarly, we were delighted to note is that *'care will be taken to involve students as partners at all levels and phases of the actions and projects'*. However, it was not entirely clear how this will be achieved. Again, specific action points and outcome measures should be directed to ensure that this happens.

a) Teacher culture and educational leadership

The panel fully supports the notion that the good work undertaken by bioCEED needs to extend beyond the host institutions. However, it was not clear how the action list on page 2 will achieve this. Holding a series of workshops, *etc.*, is still predominantly going to impact on the “coalition of the willing”. How will the work of the centre be disseminated more widely within Norway, and beyond, and outcomes as opposed to outputs be assessed?

b) Innovative teaching

There is much to applaud in this section both in terms of the statements made and the suggested actions. However, the action points seem to be limited to the sphere of biology. How will the work of the centre extend into other science disciplines (*e.g.*, chemistry, physics, mathematics)? What specific actions (and associated outcome measures) will be used to stimulate activity in this area?

c) Practical training

This section is strong. However, we would have liked to have seen specific action points and outcome measures focused on exploring the mechanisms by which the reach and quality of the internship programme could be increased to ensure that a greater number of students were exposed to cutting-edge research.

d) Outreach.

This final section is less developed in terms of an explanation as to how the centre will achieve its aims. At the moment the section only really focuses on developing communication platforms (websites) and publishing. The centre should give some more thought as to how its outreach goals may be achieved.

3. Organisation and management.

This section largely describes changes that have already taken place. Does this mean that no additional alterations are envisaged during phase 2? How will, for example, the measures of success be monitored and evaluated both individually, and, more importantly, as a coherent whole making a significant impact?

4. Centre relations

This final section hints at some wider partnerships (*e.g.*, with other SFUs). However, we would like to see a more detail as to how bioCEED will coordinate and attempt to integrate these disparate activities.

Summary

The bioCEED action plan is a good description of what is likely to happen during funding Phase 2 for the centre. However, it could still have more of a strategic focus and more fully address the issues identified during the interim review process. We have no doubt that bioCEED will be successful, but if it were able to embrace more of the recommendations made by the review panel then it could play a central role in transforming biology education, both within Norway and far beyond.