



Feedback to applicants – Centres for Excellence in Education (SFU) 2016

Oslo, 15 July 2016

This document presents the expert panel's assessment of the 22 applications received for the 2016 call for Centres for Excellence in Education (SFU). It also shows which applicants the panel have chosen to continue to phase two of the assessment process.

Introduction

NOKUT issued the call for applications for new Centres for Excellence in Education on 17 February 2016, with 13 May 2016 as the deadline for submission. NOKUT received 22 applications from 12 institutions.

NOKUT appointed an expert panel to assess the applications:

- Professor and Chief Executive Stephanie Marshall, Higher Education Academy, United Kingdom (chair)
- Student Christine Alveberg, NSO, University of Agder, Norway
- Professor Peter Dieter, Gustav Carus Medical School, Dresden University of Technology, Germany
- Professor and Head of Development, Astrid Elbek, The Royal Academy of Music, Denmark
- Professor and Pro-Vice Chancellor Duncan Lawson, Newman University, United Kingdom
- Professor and Pro-Vice Chancellor Philippa Levy, University of Adelaide, Australia

The secretariat for the panel consists of Project Manager Helen Bråten, Adviser Ingvild Andersen Helseth and Higher Executive Officer Maren Myre Baksaa, NOKUT, with assistance from Senior Advisor Kristian Jørgensen, Division of Financial Services, University of Agder.

The expert panel assessed the bids according to the [criteria for awarding status as Centre for Excellence in Education](#).

Due to possible conflicts of interest, Christine Alveberg refrained from assessing the bid from University of Agder and Duncan Lawson from the ACT! bid from NTNU. Kristian Jørgensen refrained from looking at the University of Agder bid.

The bids were given grades on a scale from 1 to 6, where 1 is 'very poor' and 6 'excellent', and the bids that received grade 5 and 6 are considered as finalists. The expert panel will conduct site visits to all the finalists. The expert panel assessed the applications as follows:



Bid #	Institution	Centre	Grade	Finalist/ site visit
1	Hedmark University of Applied Sciences	CESE - Center for Excellence in Sustainability Education	3	No
2	Lillehammer University College	CEFIMA - Centre of Excellence in Film and Interactive Media	5	Yes
3	NMBU	CESEM - Centre of Excellence in Statistics Education and Metacognition	3	No
4	NMBU	CEALS - Centre for Excellence in Action Learning for Sustainable Development	4	No
5	NMBU	SITRAP - Centre for Integrated and Transdisciplinary Education in Planning	5	Yes
6	NTNU	ACT! - Active Learning for Core Technology Education	4	No
7	NTNU	Engage - Centre for Engaged Education through Entrepreneurship	5	Yes
8	NTNU	ExcITEd - Excellent IT Education	6	Yes
9	NTNU	SCOPE - Center for Excellence in Medical Education	6	Yes
10	NTNU	TRANSark - Transforming Higher Education	3	No
11	Oslo and Akershus University College of Applied Sciences	Centre for Interprofessional Interaction with Children and Youth	5	Yes
12	Stord/Haugesund University College	cePraxis - Centre for Excellence in Rehearsing Praxis in Teacher Education	2	No
13	University of Agder	PEM - Centre for Performance-Based Electronic Music	2	No
14	University of Bergen	CESTEC - Centre of Excellence in Science and Technology Teaching	2	No
15	University of Bergen	MADE - Making a Difference with Education: Centre for Excellent Education in Global Health	3	No
16	University of Bergen	iEarth - Centre for Integrated Earth System Education	6	Yes
17	University of Oslo	altC - Advanced Learning Technology Centre	2	No
18	University of Oslo	C3E - Centre for Excellence in Entrepreneurship Education	4	No



19	University of Oslo	CCSE - Center for Computing in Science Education	6	Yes
20	University of Stavanger	SimLearn - Centre for Simulation-based Learning for Professions	2	No
21	University of Tromsø	INTERPROF - Centre for Interprofessional Education in Health and Social Sciences	5	Yes
22	Volda University College	CADJ - Centre of Excellence in Applied Digital Journalism	4	No



Bid 1 – Hedmark University of Applied Sciences: CESE - Center for Excellence in Sustainability Education

Concept:

CESE's vision is to create a pyramid learning for sustainability, meaning learning communities focused on students experiencing a complete and integrated knowledge pyramid with education, research, innovation and communication. The centre aims to create candidates who will contribute to the 'Green Shift' and become entrepreneurs for sustainable development.

Strengths and weaknesses:

The application shows that the small campus is doing reasonably well, and it presents some evidence of excellence in existing provision, having a holistic approach to cultural change and educational community. There are strong input factors and there is clear evidence of a vibrant and active educational community that is ambitious and committed to further development. There seems to be a community with a strong distinctive ethos.

The application describes a solid, but standard approach to R&D-based education, where students are exposed to staff research and carry out research-based bachelors or masters theses. There is a focus on using active teaching and learning methods, and exposing and engaging students with potential employers and other stakeholders. It is also positive that strategies to encourage a culture of quality and engagement among students are emphasized.

The aim to develop a 'Pyramid Learning Community' based on research, innovation, education and communication is clearly set out at a general level. There is a good sense of identity and purpose in the centre, with a promising model. The stated intention to integrate all students into the learning community is a positive feature. However, there is insufficient evidence for integrating students and bringing about student engagement.

With regard to the existing provision, the centre is promising based on the track record and input factors. The detailed conceptualisation of this model is however lacking. Documentation on process factors is underdeveloped and there is insufficient evidence of outcome factors. The issues regarding the centre's strategies and plans for development and innovation is underspecified. There is also a lack of clarity on planned actions. The application presents good ideas, and the model is promising, but the centre plan needs more detailed conceptualisation and elaboration of substance.

Points to consider:

- How will the governance and management arrangement be set up to deliver the end result?
- At the end of the project, what will the students be able to do? What are the outcomes?
- How can students be involved and engaged in developing the pedagogy and learning community?
- How is the proposed centre innovative and linked to international developments and research?

Grade: 3

Site visit: No



Bid 2 – Lillehammer University College: CEFIMA - Centre of Excellence in Film and Interactive Media

Concept:

The vision of CEFIMA is to innovate teaching and learning in filmmaking to fully incorporate digital technology and interactivity as a mean of artistic expression. Digital technology has long been adopted in all phases of film and television production, but artists are just now beginning to explore its full potential. The challenge is to prepare students to exploit the new technologies for telling meaningful stories that help us understand both intellectually and emotionally an increasingly complex world.

Strengths and weaknesses:

CEFIMA represents a specialist area, filmmaking, with potential to make international impact. The application documents clear evidence of excellence in the current provision. The plans are well aligned with institutional priorities. The film school at Lillehammer has a strong international reputation and the panel believes that the educational provision is of high international standard. The centre has strong professional expertise with good connections to industry and the wider community.

The pedagogical approach is clearly stated with the use of innovative learning and teaching methods, which focuses on active student learning, student engagement, co-creation and students' ownership of learning. The student transformation is a strength in the bid. The intake of students is highly selective and there are evidence that they achieve well, with good employability. Candidates are well regarded within the professions. The provision is highly relevant to the labour market in the discipline area.

The centre has potential to make a real impact given the standing of the school together with a strong dissemination plan. The implementation phase of the centre is less clear, particularly on how to involve students. More consideration should be given to evaluation and impact.

The bid provides some evidence on how R&D permeates education, particularly with artistic and experiential learning. More evidence on how R&D permeates student learning could be included. More analysis of learning outcomes would have been useful although student success is evidenced. The innovative aspects could have been developed in more detail.

Points to consider:

- How can collaboration with other institutions be strengthened?
- How will students contribute to the centre and shape the activities?
- How will the centre change the society?
- How will value for money be gauged and the centre sustainable post-funding?

Grade: 5

Site visit: Yes



Bid 3 – NMBU: CESEM - Centre of Excellence in Statistics Education and Metacognition

Concept:

CESEM aims to identify and implement adaptive teaching styles leading to improved learning outcomes in statistics and other STEM-subjects by identifying beneficial learning styles for different cognitive types. The centre will achieve this through 1) psychological cognitive screening of students 2) “live” neurological activity and attention screening 3) carefully designing statistical experiments and qualitative assessments exploring learning styles/technology 4) active implementation and dissemination for improved teaching quality and learning.

Strengths and weaknesses:

CESEM presents a well articulated proposal in a contested area. The improvement of learning outcomes in statistics and STEM subjects is a clear need within the higher education sector. There is evidence of expertise in research on the topic, but there is no evidence of existing excellence in education. The application does not explain existing provision in statistics learning well enough. A range of new approaches have been introduced, but it is unclear whether these new approaches have been evaluated. Student engagement is mundane and there is poor evidence of how students are active in innovation and developmental processes. The centre’s effect on student learning outcomes is not clear.

The translation of research into practice, how to get colleagues involved and plans for dissemination needs to be further developed. For instance the employment of a disseminator is interesting, however it is not clear what s/he will disseminate and to whom (target groups). The management structures need further development.

The proposal seems to emphasize research more than developing teaching and learning.

Points to consider:

- What are the implications for student learning?
- How will students contribute to the innovation and development processes?
- How might leading international practice in statistics education be used to inform the proposal?

Grade: 3

Site visit: No



Bid 4 – NMBU: CEALS - Centre for Excellence in Action Learning for Sustainable Development

Concept:

The vision of CEALS is to strengthen the capacity for educating candidates able to contribute to sustainable societies by using action learning. Three NMBU faculties within the areas of agroecology, teacher education, and landscape cooperate in this proposal. The core idea of CEALS is to establish a dialogue space where students and teachers meet stakeholders in a space of shared action, where all participants enhance co-learning while collaborating on handling complex and dynamic sustainability challenges.

Strengths and weaknesses:

The vision of CEALS, to have teachers and students work together with different stakeholders with real-life problems in transdisciplinary community, is commendable. The proposal includes good ideas and features for an important transdisciplinary approach.

Documentation of excellence in educational quality is provided, although more recent documentation of existing excellence could have been included. The provided input factors are solid. There are real strengths in agro-ecology with an international standing and international networks. Approaches to student feedback are systematic and frequent. It is positive that student engagement and ownership is relatively strong in the learning experience. Student achievement, retention and outcomes are good.

The need for a transdisciplinary approach to sustainability education is well explained and clear. It is laudable student and stakeholders have co-developed the plans. The links with teacher education and the transdisciplinary approach are promising. There is a strong focus in dissemination on participatory engagement and student involvement.

The centre has good ideas, but the vision and plans are not yet fully articulated resulting in a disappointing overall picture. More evidence of how the proposed approach has impacted student learning and improved practises is needed. Additional information on how this proposal takes action learning to the next level would have been welcomed. How the students are co-creators and the student role in determining the step change needed more explanation.

It is not entirely clear what the links currently are with teacher education. The balance between the disciplines is not convincing. It might have been possible to include a broader range of cross-disciplinary actors and more collaboration internally and externally. The plans and methodology for evaluation are insufficiently developed.

Points to consider:

- The currency of the evidence of documented quality
- Going from where to where? What are the most important milestones and why? Address key steps in an action plan including baseline
- How can internal, national and international partners be involved?

Grade: 4

Site visit: No



Bid 5 – NMBU: SITRAP - Centre for Integrated and Transdisciplinary Education in Planning

Concept:

The vision of the SITRAP is to educate a new generation of professionals to take a leading role in planning and implementation of the 'Green Shift'. The centre's main goal is to conceive, implement and develop transdisciplinary learning methods, which integrate academic thinking with professional methodologies and allow students and future professionals to break down sectorial barriers and act beyond disciplines. SITRAP will be a catalyst for developing and testing innovative learning and teaching methods through the cooperation of educators, researchers and external partners. The centre will build on the rich variety of existing study programs at NMBU and encourage the transdisciplinary sharing of content, methods and competences.

Strengths and weaknesses:

There is rigorous documentation of existing excellence in the educational provision. There seems to be recognition at national level for excellence in planning education. The proposal presents a consortium with strong partners that complement each other, including a good multidisciplinary mix of staff.

The application describes solid pedagogical approaches including active learning through studio based design tasks and problem based teaching. There is evidence of innovation in virtual reality. The NMBU's students feel included in the academic community and have more access to professors than in other universities in Norway, which is an excellent foundation for student engagement. The application strongly emphasize links between research and teaching and there are elements with students as co-creators. The expert panel praises the collaboration with the learning centre. More explicit documentation on how R&D permeates student learning could be included. Outcome factors are solid including good employment outcomes and relevance for students and employers.

The goals, plan of work and structure for the centre are clear overall. The governance structures are thought through. The development of transdisciplinary learning methods in planning with a view to implementing the 'Green Shift' responds to climate change in particular and the case for its importance is well articulated. The innovation seems to be the focus on the Green Shift and innovation in teaching and learning methods could have been made more explicit as could the engagement of the students in the centre.

Impact and dissemination have been considered, though evaluation of the impact of the project as a whole is less clear. Additionality and sustainability are addressed in a limited way.

Points to consider:

- How can internal, national and international partners be involved? Should international engagement start earlier?
- How to use developments in research to improve teaching and learning?
- How can students be engaged in developing the centre?
- What does the centre want to accomplish that will not happen without an SFU grant (additionality)?

Grade: 5

Site visit: Yes



Bid 6 – NTNU: ACT! - Active Learning for Core Technology Education

Concept:

The main aims for ACT! are to establish a smooth transition from upper secondary school to higher technology education; modernise core courses in foundation subjects (mathematics, physics and computer science) to obtain cross-disciplinary integration; design intelligent tools and methods for digitalisation in core courses, and develop learning environments and forms enhancing student participation.

Strengths and weaknesses:

ACT! is a well written bid giving evidence of quality of education. The bid takes a rigorous and systematic approach to development, and presents good input factors, including management and personal resources. There is a solid track record of IT education, although more detail addressing the points directly would have been useful.

The track record of educational research and development is impressive, as are the existing links with key stakeholder groups. There is quite a strong focus on student engagement. The undergraduate research program in maths is commendable. Student achievements and the relation to learning outcomes are documented in a good manner, but more specific details on teaching, learning and assessment methods would have been useful. The KTDiM project ('Quality, accessibility, differentiation in the foundation courses in mathematics') in particular shows very positive student outcomes.

The rationale for ACT! is well articulated and strong. There is a clear, well-structured plan with a positive level of student participation in development and innovation. The proposal will set up a physical and virtual support centre, which is good – as with similar initiatives of this genre.

Overall, the bid would have favoured from elaborating in more detail on many aspects. For instance, more detail on the innovative nature, i.e. what is the step change from other similar initiatives, of the proposed work should have been presented, including its impact on pedagogical approaches and student learning outcomes. The panel would have liked more detail on institutional development and value for money. The evaluation and dissemination plans appear solid, but are outlined only rather briefly.

Points to consider:

- How does this centre propose innovation in light of national and international developments?
- How does the development of tools and resources contribute to overall development of education and student learning?

Grade: 4

Site visit: No



Bid 7 – NTNU: ENgage - Centre for Engaged Education through Entrepreneurship

Concept:

ENgage will develop education for students from all disciplines and professions who will constantly challenge accepted truths and be innovative, in both public and private sectors. In a world that is constantly changing, citizens need to be able to identify challenges, have the will to act upon them, and be the driving force for change. ENgage will educate agents of change, with an entrepreneurial mind-set, regardless of context. The centre is a consortium of NTNU's School of Entrepreneurship, Nord University Business School, NTNU Experts in Team, TrollLABS and Spark NTNU.

Strengths and weaknesses:

This highly ambitious bid focuses on interdisciplinarity and learning through real-life issues, which is a strength. The input factors are strong overall, drawing on different groups bringing different strengths, strong networks and a strong management group. The main staff are all active researchers and has substantial publishing records on entrepreneurship. There are some creative methods well attuned to the development of entrepreneurial mind-sets. The students are active and the use of student mentors is extensive. There is a clear recognition for quality outcomes and impact.

The proposal is based on a major set of initiatives coming together. There is a well-structured plan with several work strands. There are multiple partners in this impressive consortium. International partners are also involved.

The centre focuses on an important area for society. The development of change agents with entrepreneurial mind-set, with a focus on action learning, student to student learning across all disciplines and 'train the trainer' efforts are very worthwhile chiming with national and international priorities. Students are envisaged as having a key role in many aspects of the centre. Whilst the action-based learning approach clearly makes students active, the student engagement with in the centre could have been more clearly articulated. The claims about innovation in teaching are not fully substantiated.

Dissemination is well thought through, and build on a range of existing mechanisms, and there are interesting ideas around using students as agents of dissemination. However, a more developed plan for dissemination would have been useful especially in relation to achievement of pedagogical change. Impact evaluation is addressed and is promising. There is a clear statement about additionality.

A key issue is co-ordination. There is a case made for coherence and synergy. A risk seems, however, to be diversity and fragmentation. It will be a challenge to manage various partners.

Points to consider:

- How can the international dimension be further explored?
- How will the centre come together as a coherent whole and impact the sector?
- How will students be involved in developing the centre?

Grade: 5

Site visit: Yes



Bid 8 – NTNU: EXcITEd - Excellent IT Education

Concept:

EXcITEd aims to enhance tertiary IT education in Norway based on a consortium between NTNU and Nord University. Approaches include increased focus on project-based education, earlier involvement of students in research and development activities, and greater focus on self and peer-assessment and reflection both among students and teachers. EXcITEd wants to try out and partly develop various IT tools for learning, since IT teachers and students have special competence for making advanced contributions in this area.

Strengths and weaknesses:

The group behind the EXcITEd bid has an excellent track record when it comes to pioneering educational innovation, award-winning educational delivery and stakeholder partnership. The panel would like to highlight that the documentation of quality in existing provision is good, especially when it comes to student outcomes.

EXcITEd's bid shows a clear vision. The bid is forward thinking, relating to issues that will be increasingly important in the future. There is great potential for transferability across subject fields and institutions, and the panel believes that there is a need for the developments that EXcITEd is proposing.

The commitment to improving outcomes relating to women in IT is laudable, as is the commitment to working with students as partners. It is very positive that students have been involved in the planning for the centre. Additionally, the clear focus on dissemination for action in this bid is commendable. There appears to be solid managerial competence within the proposed centre team and it is clear that there is strong senior management support.

The bid focuses on outcomes of the centre, but there is a need for clearer indications of the steps needed to deliver the proposed outcomes. The bid would have benefitted from increased coherence.

Points to consider:

- What are the key steps to be taken to achieve the centre goals?
- What is the baseline that the centre will use in order to measure its success?
- How will evaluation take place?
- What does the centre want to accomplish that will not happen without an SFU grant (additionality)?

Grade: 6

Site visit: Yes



Bid 9 – NTNU: SCOPE - Center for Excellence in Medical Education

Concept:

The vision of SCOPE is to foster lifelong learning for improved public health and patient care. SCOPE wants to facilitate student involvement and learning in how to ensure that clinical practice is continuously updated, based on new knowledge. SCOPE will focus especially on skills in receiving and giving supervision and assessment methods mirroring real life situations. The result sought is practitioners that are even better at regenerating their skills, who are highly motivated and able to update their knowledge to cope with widely varying work situations.

Strengths and weaknesses:

The bid from SCOPE builds on solid documentation of quality in existing provision. This includes clear indication of managerial support and capability, and a systematic pedagogical model based on a mature approach to problem-based learning. There are very good student outcomes.

The challenge of how to deliver high performing interdisciplinary teams is a key concern internationally. Student co-creation and engagement is therefore a commendable feature in this bid. Student-led clinics and including students in research groups are examples of clever ways to get students involved. Both are means by which students are developing 'real life' professional skills. There are close links proposed with the educational development unit, which is an asset.

The overall educational vision is powerful and exciting. The bid includes clear thinking around evaluation and impact with the preferred theoretical model identified.

It would have been useful to give a clearer sense of the specific changes that students will experience, for instance how pedagogy will change to achieve the desired outcomes. In general, the steps to be taken could have been specified to a greater extent.

Points to consider:

- What are the key steps to be taken to achieve the centre goals?
- How will students initiate change?
- How can greater emphasis be placed on the students' own research?
- What training and subsequent feedback will be offered to students on their team facilitation skills to ensure they continue to develop their professional skills?

Grade: 6

Site visit: Yes



Bid 10 – NTNU: TRANSark - Transforming Higher Education

Concept:

TRANSark is the shared vision of a transdisciplinary group of educational provision at NTNU, with the ambition of contributing to the emerging paradigm shift in higher education. TRANSark aims to be in the vanguard of developing and testing next-generation, 'high impact' pedagogies, initially for architecture, product design and medicine. The centre wants to move professional education from discipline-specific teaching to advanced generic learning methods, whilst simultaneously transferring cutting-edge disciplinary knowledge and values to general pedagogy.

Strengths and weaknesses:

TRANSark already exists as a centre and is an emerging force for pedagogical innovation with high student involvement and achievement. R&D-based education is a strong feature of this bid and already present in the current educational provision. However, documentation of quality in the existing provision is unclear.

The relationship between architecture on one side and product design and medicine on the other is not balanced, neither in the documentation of quality nor in the centre plan. It is not clear how committed the product design and medicine groups are to this centre or how the centre draws on the different strengths of these communities. This is a major drawback in TRANSark's bid.

The principle of moving from 'best practice' to 'next practice' is highly commendable, and the conceptual framework is promising. However, it needs to be developed with a greater coherence and depth. Furthermore, external professional groups are poorly represented in the centre plan.

Points to consider:

- How can the architecture, product design and medicine groups build on their existing excellence and develop this further, using their complementarity as a strength?
- What are the key steps to be taken to achieve the centre goals?
- What does the centre want to accomplish that will not happen without an SFU grant (additionality)?

Grade: 3

Site visit: No



Bid 11 – Oslo and Akershus University College of Applied Sciences: Centre for Interprofessional Interaction with Children and Youth

Concept:

The objective of the centre is to enhance collaboration between educational provision addressing children and youth's well-being, health and education, in order to improve services offered to children and youth. In Norway, interprofessional collaboration is usually confined to health and social services, however a broad array of professional efforts are crucial to the everyday lives of children and youth – hence the need for widening the educational scope. A key feature of the proposed centre is the co-design and co-production of learning resources by students, staff and practitioners.

Strengths and weaknesses:

The bid from Oslo and Akershus University College of Applied Sciences draws on good results on a range of indicators for existing quality. The centre builds on a strong network of stakeholders and the practitioners' input is strong. Student engagement is well established and active. The existing provision use engaging learning methods, as attested to by students in their feedback and evaluations.

The proposed centre seeks to take on an innovative project with great societal need in combining a great number of educational provision relating to children and youth's well-being, health and education. Involvement of students in co-construction of cases for case-based learning is laudable. The governance and management structures for the centre seem sound.

Links between research and teaching and learning are less clear. As the centre draws on a range of educational provision, the competence of the centre itself is not entirely clear. The role of students and international partners in the plan for dissemination is a positive feature, but care should be taken to involve other national partners actively in the centre. Sustainability could have been addressed to a larger extent.

Points to consider:

- How does research inform teaching?
- How does the centre develop innovative R&D-based education?
- How can national partners be involved in the centre?
- What will be evaluated? How and by whom?

Grade: 5

Site visit: Yes



Bid 12 – Stord/Haugesund University College: cePraxis - Centre for Excellence in Rehearsing Praxis in Teacher Education

Concept:

cePraxis aims to encourage the enhancement of praxis in the lived conditions of practice for the individual teacher, and the formation and development of social, cultural and material conditions that make educational praxis possible within teacher education. The vision is therefore to develop and study the Rehearsal Space both as a physical space and a metaphor for professional development with clear visions of good education, and coherent teacher education programmes where opportunities to rehearse praxis will be the core activity.

Strengths and weaknesses:

cePraxis makes a good case for enhancement of teacher education in a small (but about to be merged) institution with solid theoretical underpinning. However, the initiative comes across as small-scale and rather inwardly focused, and the bid does more towards articulating a theoretical case than a practical project plan.

The part on documentation of quality is unclear and lacks actual documentation on some points. It somewhat confuses input indicators for quality in existing provision with indicators for the centre. As input factors for quality in existing provision, two key initiatives are presented, but the coherence between them in the focus on praxis is not clear and the examples seem rather small scale.

The concept is interesting, but the bid does not make clear how innovative the concept of the Rehearsal Space is in relation to national and international practice in teacher education. This makes the possible national and international impact rather unclear.

Information is lacking or unclear regarding several aspects of the criteria for awarding SFU status.

Points to consider:

- How are students involved in the development of the provision and the centre respectively?
- How does the Rehearsal Space fit with national and international developments in higher education?
- What are the key steps to be taken in order to achieve the centre goals?

Grade: 2

Site visit: No



Bid 13 – University of Agder: PEM - Centre for Performance-Based Electronic Music

Concept:

PEM aspires to sustain, refine, and disseminate its experience in teaching electronic music and to make students become innovators in the coming musical world where distinctions between creation and performance disappear. This includes expanding insights from teaching electronic music into the education of performers of traditional instruments who participate in a world of musical electronics. It also entails developing educational methods that prepare future musicians for creative collaboration with artists from the world of electronic visual media.

Strengths and weaknesses:

PEM wants to initiate step change and the centre's vision is interesting. The management structure seems thought through and senior management involvement is evident. For instance, electronic music is identified as one of the University's 'signature studies'. The students are highly engaged in their studies and some innovative methods are used.

The limited interaction with others in the educational field internationally is a weakness in the documentation of quality in existing provision. It leaves an impression of the bid as quite inwardly focused.

Good ideas of artistic development are visible throughout the bid, but this somewhat detracts attention from actual teaching excellence and development. Furthermore, the bid is weak when it comes to including other strong, international electronic music communities as collaborative partners and advisory capacities.

Particularly in such a specialised field, international comparison should be an important feature of a bid for status as Centre for Excellence in Education. The role of students as active in the development of the centre, not just as active learners, needs more careful consideration.

Plans for evaluation and dissemination, as well as the action plan, are quite vague. Key steps to realise the vision need to be articulated more clearly as well as how the centre will monitor that it is achieving its goals.

Points to consider:

- How does the proposal fit with national and international developments in higher education?
- How are students involved in the development of the provision and centre plan respectively?
- What are the key steps to be taken in order to achieve the centre goals and how will progress be monitored?

Grade: 2

Site visit: No



Bid 14 – University of Bergen: CESTEC - Centre of Excellence in Science and Technology Teaching

Concept:

CESTEC will develop new tools, best-practice examples and relevant resources to reshape course content, student activities and study-program structure. Through focus on targeted collaborations between students, university staff and enterprises in both private and public sector, the centre will develop a new educational framework so that, when implemented, students and staff alike will contribute to critical thinking and development of critical ideas.

Strengths and weaknesses:

This centre has the potential to make a real difference in terms of the skills students need for their future employment. The input factors presented in the bid are solid. Students are engaged through feedback and work as teaching assistants and mentors. However, the panel would like to see more emphasis on student engagement in participation, development and innovation.

There is substantial scientific research but it is not clear how this influence the educational provision. Working on real problems from industry is a good thing. There is however little sense of where the best practice and innovation lies in teaching, learning and assessment.

The input from the stakeholders into the centre seems limited, although the bid names many such partners. Centre management and governance structure is poorly developed.

The diagrams are clear and helpful. The plans presented come across as more generic curriculum and pedagogical development activities than genuinely innovative plans. There is also inadequate information given about the student outcome, evaluation and impact.

Furthermore, it is complicated to find a description of how the criteria for awarding SFU status will be met, as these are not explicitly addressed.

Points to consider:

- How can students be more engaged and involved in the centre? Could students be placed in the middle of figure 1 as a reconceptualization of the model and student engagement in the centre as a whole?
- How is the bid innovative given current national and international developments?
- How can evaluation goals and methodology be described in more detail?
- Is there a more creative way to involve others in the centre (dissemination for action)?

Grade: 2

Site visit: No



Bid 15 – University of Bergen: MADE - Making a Difference with Education: Centre for Excellent Education in Global Health

Concept:

MADE's vision is to provide excellent and innovative education in global health, thereby improving health for the world's poorer populations. The centre wants to include topics reflecting current global challenges in global health education, increase student involvement, educate educators in new pedagogical skills and increase the use of technology-based innovative teaching methods. The centre is a consortium between University of Bergen and University of Copenhagen.

Strengths and weaknesses:

MADE builds on a very positive track record and a long history of global health education. The managerial commitment is clearly strong and MADE draws on collaboration with a wide range of international partners. The intercultural setting and links to the UN's development goals are commendable features.

There is evidence of good practice, for instance in problem-based learning, some innovation and high relevance. Student feedback is sought and satisfaction appears high. However, the link with R&D is less clear.

Engaging students in real life challenges in an area of great global societal need is positive, but the means by which this application propose to do this is cumbersome. The pedagogical approaches are not developed enough and the innovative aspects can be questioned. For instance, MOOCs have been used for several years already. The focus on active learning is welcome, but not innovative in itself.

The plans for evaluation and dissemination can be developed further, and a narrowing of the scope and focus of the bid could be considered.

Information is lacking or unclear regarding several aspects of the criteria for awarding SFU status.

Points to consider:

- What are the realistic steps towards realizing the high ambitions?
- How does the centre develop innovative R&D-based education?
- How is the bid innovative given current national and international developments?

Grade: 3

Site visit: No



Bid 16 – University of Bergen: iEarth - Centre for Integrated Earth System Education

Concept:

iEarth is a national consortium of University of Bergen, University of Oslo, University of Tromsø and the University Centre in Svalbard which aims to transform earth science education in Norway. The centre will connect excellence in research to excellence in student-active learning by creating a national competence centre, developing a generic approach to cross-disciplinary earth science education within critical fields of societal relevance. iEarth aims at establishing a coherent system of evaluation to foster teaching excellence and identify best practices to disseminate worldwide.

Strengths and weaknesses:

There is plenty of evidence of excellence in research, teaching and student satisfaction at the core of the consortium, as well as a good record of accomplishment in multiple good practice initiatives in teaching and student support. The inclusion of students in authentic research, and freedom for them to initiate and pursue their own projects, gives a positive sense of co-creation. There is a strong R&D base, which is proposed to become stronger, innovative approaches to learning and teaching and a good level of student engagement.

The area is of high priority in Norway and globally, and the panel considers this a much wanted innovation, well aligned to societal needs, which could provide a model for other inter-disciplinary work as well. The bid presents a strong consortium with four partners – University of Bergen, University of Oslo, University of Tromsø and University Centre of Svalbard. However, there seems to be an unbalance between the University of Bergen and the other partners.

There is a well thought out management structure balancing the need for clear leadership and involvement of partners. The panel also reads a clear motivation and strong focus on curriculum and pedagogical transformation for inter-disciplinary learning. The plans are well conceptualised, with good collaborations, both within Norway and globally.

Dissemination for action is planned for from the outset, as iEarth is a consortium of four major players in the field. This is a major strength. The panel considers that iEarth could capitalise on this even further. Additionality is treated implicitly and student achievement could have been addressed to a greater extent.

Points to consider:

- What is the unique contribution of the institutions other than the University of Bergen?
- How can the dissemination plan become more detailed, in relation to the different key milestones?
- The centre has a global approach. Could this be made clearer?

Grade: 6

Site visit: Yes



Bid 17 – University of Oslo: altC - Advanced Learning Technology Centre

Concept:

In the context of lifelong learning, Computer Assisted Instruction (CAI) is an invaluable tool, which today mostly has a “one-size-fits-all” design. altC will turn CAIs in health sciences into personalised and intelligent tutoring systems that measure learning needs, methods and progress. This will provide efficient learning through adaptive testing and personalised feedback, teach learners to become self-regulated and provide knowledge tailored to the learner’s individual needs.

Strengths and weaknesses:

The bid comes from a medical school with leading, world-class research groups, and strong commitment to research-based education. Hence, the input factors are very solid. There is a very strong team combining health education and a generic education expertise. Benchmarking data and collaborative activity in a European context is commendable. However, the panel misses a clearer sense of the pedagogical practice, student engagement and student achievement. This is a major drawback.

The organisation of the centre is reasonable, and the structure of the plans is at a high level. Student involvement is good when it comes to the development of resources. The dissemination plan seems solid, although somewhat underdeveloped.

The plans for the centre remain rather general and unclear. There are some interesting ideas, but more details on implementation is necessary. Furthermore, the way that the proposed centre is building on previous achievement in the chosen area and takes these areas to the next level, should have been addressed.

The proposal seems more about developing a specific tool or a product than a Centre for Excellence in Education. The rationale for developing a ‘generic ICT framework’ which is possibly applicable globally, is not clear. More information about the evidence-base for doing so would shed light on issues such as contextualisation and contingency. How this product is closing the gap of current tools and approaches should have been outlined, as well as how this tool will impact learning, practice and institutional development.

The focus on collaboration seems limited to the centre’s second five years period. The panel is unsure of this sequential approach. In addition, the evaluation and impact measures should have focused more on student learning outcomes. Overall, the plan lacks a clear statement of purpose and coherence.

Points to consider:

- What is the rationale behind developing a generic and possibly globally applicable ICT framework?
- How are students involved in shaping the centre plan (including in the development of the pedagogical approach)?
- What pedagogical interventions might be proposed, at different stages of this project, to assist the driving up of student achievement?
- What are the student learning outcomes?

Grade: 2

Site visit: No



Bid 18 – University of Oslo: C3E - Centre for Excellence in Entrepreneurship Education

Concept:

The C3E is a consortium between University of Oslo and The Norwegian University of Life Sciences. The aim for C3E is to direct practice-based entrepreneurial educational competence to the life science/ICT systems in the Oslo-region, by establishing pedagogy and learning environments that in the best possible way prepare and integrate students with existing and growing initiatives in the ecosystem. This will raise awareness and develop entrepreneurial competence in accordance with European and Norwegian Qualification Framework.

Strengths and weaknesses:

The proposal present solid input factors. The centre has a significant track record of educational achievements and expertise in the area. The universities' commitment to innovation and entrepreneurship is made clear, and there is very good engagement with external stakeholders. Process factors are solid and the relevance of the provision is made clear. The fact that the centre has already worked in this field internationally is commendable. More data on student outcomes would have been helpful and the balance between the institutions is not clear.

There is little emphasis on the centre plan in the proposal, for instance how the centre is innovative in an international context. The panel would have liked to see more details on the envisaged pedagogical change and changes to the learning environment, benchmarked against international best practice, in order for the centre to reach its goals. The emphasis on supporting the students' progression is positive. There is good engagement of PhD students. More information on the engagement of bachelor and master students could have been included. As the proposal stands, it is difficult to understand the role and interconnectivity of students at the different levels of study.

The dissemination plan could have been further developed. Measures of impact were included, however a greater depth in looking at impact could be developed with more emphasis on outcomes.

Points to consider:

- How will the centre achieve its goals?
- How will bachelor and master students be involved in shaping the project, including the pedagogical approach, in order to achieve key milestones?
- What are the outcomes and novelties of the centre?
- What are the unique contribution of the partners outside of the University of Oslo?

Grade: 4

Site visit: No



Bid 19 – University of Oslo: CCSE - Center for Computing in Science Education

Concept:

The centre will, in partnership with students, integrate computing throughout the whole curriculum, develop professional educational material to ease adoption at other institutions, establish a research activity to provide a research basis for the approach, and adapt and extend methods and practices to other institutions and disciplines; nationally and internationally. This will transform education, build a culture for teaching and learning, immerse students in complex problems and prepare them for a lifelong career.

Strengths and weaknesses:

The proposal is well written and well argued. The centre builds clearly on existing excellence and the quality of the documentation is a testimony to the managerial competence. Input factors are very strong. R&D is central to the curriculum and the bid shows a very good emphasis on this. The proposed curriculum will bring students into closer contact with research. There is a strong record in student satisfaction and good teaching innovation with extensive (and praised) student engagement. The outcome factors are excellent and the relevance of the provision is clear.

CCSE proposes major curriculum reform in physics, and the need for this reform is persuasively made. There pedagogical rationale is also well explained. Innovation is well scoped and focused, and the emphasis on student engagement is evident. The dissemination has been carefully designed to go beyond 'push' methods, with another institution designated as a transition pilot partner. Interaction with schools is positive.

The plans for evaluation are clear, but could been more detailed.

Points to consider:

- How will the project be rolled out in other departments and fields, as there seems to be a strong focus on physics in the bid?
- How is work package 4 aligned with the proposed evaluation?

Grade: 6

Site visit: Yes



Bid 20 – University of Stavanger: SimLearn - Centre for Simulation-based Learning for Professions

Concept:

The centre wants to educate professionals that are better prepared for practice and lifelong learning through transforming higher education by implementing simulation-based learning. This will contribute to faculty development and new research-based knowledge about how to use simulation-based learning to improve student learning in higher education.

Strengths and weaknesses:

Input factors supporting simulation-based learning is solid. Networks with other organisations, including international partners, is an asset and the relevance of the provision is well articulated.

The bid lacks elaboration on student engagement, ownership and learning outcomes, and the description of current practice is too general. Furthermore, the R&D dimension of the project is not made clear, nor are the specifics of the teaching and learning assessment methods. The point of SBL is to produce graduates who are better prepared to function as professionals, but the case is not convincingly made that they achieve this. SBL is used in varying degrees in the professions included in the proposal.

The rationale behind the centre is clearly expressed and it is put in the context of international development. However, overall, the project is inadequately defined. How the different professions will be brought together into a single coherent centre is not satisfactorily addressed. SBL could be innovative, but how this is to take place is very vague. Furthermore, impact and evaluation are only mentioned implicitly through innovation research, rather than as a systematic evaluation of the centre and its achievements. The three levels of dissemination are quoted, but what is written as to how they might achieve the higher levels of dissemination is unclear. Students do not seem to have an active role in the centre.

Information is lacking or unclear regarding several aspects of the criteria for awarding SFU status.

Points to consider:

- How does research inform teaching?
- How does the centre develop innovative R&D-based education?
- How are students involved in the development of the provision and the centre respectively?
- How can the goals of awareness, understanding and action be achieved?

Grade: 2

Site visit: No



Bid 21 – University of Tromsø: INTERPROF - Centre for Interprofessional Education in Health and Social Sciences

Concept:

INTERPROF wants to redesign clinical education in health and social care by exploring novel models of interprofessional learning activities for students. The centre will extend interprofessional learning for 13 health and social science programmes to authentic student-led encounters with clients. A digital platform will be developed to explore possibilities for virtual interprofessional collaboration.

Strengths and weaknesses:

There is clear evidence of a long period of commitment to educational innovation, and important enhancement initiatives have been started since INTERPROF almost gained SFU status in 2013. The input factors that are presented in the bid are strong, and the group behind the bid seems to take teaching seriously. Good pedagogical skills are demonstrated. There is also good evidence of student participation activity and a very strong partnership with municipalities and hospitals. Furthermore, a good record of graduates finding jobs locally in the Northern region can be found. However, the process factors are less evidenced, and the evidence provided for outcome factors is general and broad-based. R&D is not a major element in the proposal and it is not clear how R&D permeates student learning.

The ambitions, vision and rationale behind the project are clear and well articulated. The panel agrees that interdisciplinary professional teams are very important to better equip students for the workplace, and improving healthcare has great societal value. The governance and managerial arrangements are solid and the ideas relating to student-led teamwork are creative. There is a good engagement of students as co-creators.

More detail of the implementation of the chosen model for evaluation could have been presented. Furthermore, the involvement of colleagues from other institutions who are exploring interprofessional education could be more prominent in the dissemination plan. The innovative aspect of the project in relation to interprofessional education globally is not entirely clear.

Points to consider:

- What are the factors that make INTERPROF's approach to interprofessional learning innovative in an international context?
- How does research inform teaching?
- How does the centre develop innovative R&D-based education?
- What does the centre want to accomplish that will not happen without an SFU grant (additionality)?

Grade: 5

Site visit: Yes



Bid 22 – Volda University College: CADJ - Centre of Excellence in Applied Digital Journalism

Concept:

The main goal of CADJ is to engage students in creative practice as well as critical reflection upon the role of digital journalism in democracy. To meet this goal, CADJ will focus on providing a learning environment where students, media partners and technology developers collaborate around new forms of digital journalism. CADJ wants to support students in addressing the need of an increasingly international and entrepreneurial focus in a journalism career and enhance student-reflectivity on the impact of technological innovation in the role of journalism in democratic societies across the globe.

Strengths and weaknesses:

The proposed centre has a solid foundation in existing quality and there is evidence of managerial commitment to proactive development in the digital journalism arena. Existing external stakeholder and partner relationships are strong, and there is documentation of student satisfaction, learning outcomes and involvement. Institutional support seems strong.

CADJ's centre plan outlines key developments in terms of journalism curriculum when it comes to digital development and entrepreneurial journalism. However, it would seem that the trend of digital journalism has been in motion for some time already and that practicums are a common feature of many journalism programmes. Benchmarking internationally would have assisted in consideration of the level of innovation of this proposal. This makes the panel question the innovative feature of this bid in a global context.

The panel felt that in order to keep the curriculum up-to-date, much of what was proposed needed to happen regardless of SFU status. On-going curriculum renewal is a constant to ensure graduates' success in subsequent relevant employment. Consequently, the additionality of being an SFU was difficult to determine.

The plan is not strong on international orientation nor with regard to how R&D permeate student learning. Furthermore, it is not clear how the centre plan will be realised and the plans for dissemination to other institutions are staid, though students being actively involved in dissemination is a positive feature. Although an evaluation group is planned, the panel was not convinced that the membership of this group had been well thought through.

Points to consider:

- What does the centre want to accomplish that will not happen without an SFU grant (additionality)?
- What are the key steps to achieve the centre goals?
- How does research inform teaching?
- How does the centre develop innovative R&D-based education?
- How might dissemination for action to other institutions in Norway take place?

Grade: 4

Site visit: No