

Evaluation of the Norwegian Knowledge Centre for Education

Executive Summary

The Knowledge Centre for Education (KSU) was established by the Norwegian Ministry of Education and Research in 2013. Since September 2019, it has been organised within the Faculty of Education and Arts at the University of Stavanger (UiS). Its mission is to compile and disseminate national and international research in the field of education, develop the genre of systematic reviews, and enhance expertise in compiling and summarising research findings to support decision-making.

Towards the end of the initial five-year period of KSU's operation at UiS, the Ministry commissioned an external evaluation of KSU to assess the centre's activities and its plans for further development.

The external panel consisted of five members: Janice Tripney, Associate Professor at University College London (Chair); Camilo von Greiff, former head of the Swedish Institute for Educational Research (Skolforskningsinstitutet); Cathrine Holst, Professor at University of Oslo (UiO); Hilde Inntjore, Vice Rector for Education at University of Agder (UiA); and Anne Magdalena Solbu Kleiven, Director at The Norwegian Directorate for Children, Youth and Family Affairs (Bufdir). The panel met and interviewed 17 professionals, including centre staff and stakeholders. Evaluation methods included document review and qualitative analysis of interviews.

The expert panel concludes that KSU has significantly improved the basis for decisions in Norwegian education policy and practice. KSU has set clear priorities and worked strategically to achieve its goals for the five-year period, even though some of the framework conditions have not been optimal. A good and inspiring working environment has been established, KSU employees make significant contributions to scholarship, and the director is a highly recognised and esteemed figure within this field.

The expert panel finds strong support for letting UiS continue to be the host institution for KSU. At the same time, there is a pressing need for improved support structures at both university and faculty level. It is our general impression that UiS has not completely understood its role as a host, the resources and role of KSU, or the centre's potential. It is recommended that the faculty, as well as the university, increase levels of administrative and technical support and do more to increase national visibility for the centre.

Although KSU has performed well based on its current mandate and its location, there is scope to further develop and improve the functions of the centre. The expert panel recommends that KSU:

- Clarify its ambitions and the kind of centre that it seeks to be in the context of the international landscape of knowledge brokerage agencies.
- Continue to use explicit rigorous methods of evidence synthesis, while giving greater emphasis in their future work to full systematic reviews with narrowly focused questions.
- Carry on using well-established international support structures and published standards, introducing a requirement that protocols for all reviews are registered or published prior to project commencement.

- Be more ‘evidence-informed’ in their approach to knowledge translation, to help identify more effective ways of making evidence easily available and accessible.
- Conduct a needs analysis to better understand the goals and needs of different stakeholders.
- Include estimates of the level of uncertainty and/or strength of (a body of) evidence.
- Monitor and assess the non-academic impacts that can be attributed to its research.
- Consider how to balance researcher autonomy with the attainment of the mandate.
- Accelerate growth by developing more ambitious hiring targets and building a more diverse team.
- Continue to explore the effective integration of AI technologies in evidence synthesis processes.

The expert panel also has some recommendations for the Ministry:

- First, we recommend that the activities of KSU should continue.
- Second, we recommend that the Ministry clarifies its goals and ambitions for KSU.
- Third, we recommend that KSU either receives the same funding as today, or that the funding increases.
- Fourth, we recommend that the Ministry adjust the mandate for KSU, ensuring that the mandate and funding are in harmony.
- Finally, it is recommended that the Ministry consider including a new task in KSU’s future mandate relating to the increasing importance of AI and the significant opportunities it offers for evidence syntheses.

These findings and suggestions are explained further in the body of the report. The panel thanks the Ministry of Education and Research for the invitation to participate in this evaluation. We acknowledge that there are many possible directions for the centre’s future development and hope that this report will contribute to the choice of path going forward.

1. Background

The Knowledge Centre for Education

The Knowledge Centre for Education (KSU) was established by the Norwegian Ministry of Education and Research (the Ministry) in 2013. Until 2019, it was a unit within the Research Council of Norway (NFR). Since September of that year, it has been organised within the Faculty of Education and Arts at the University of Stavanger. Thus, it is not a new centre, but it still had to find a new form of establishment and development. The mission of the centre is to compile and disseminate national and international research in the field of education, develop the genre of systematic reviews, and enhance expertise in compiling and summarising research findings to support decision-making.

When we refer to the KSU's mandate in this report, this alludes to the overall goals, expectations, and frameworks expressed by the Ministry in both the call for proposals and the allocation letter to the University of Stavanger. The centre has developed a strategy for 2020-2025 based on these expressions. It focuses on five main goals (see Appendix 1 for the complete strategy):

1. Strengthening the research base for practice, policy, and research
2. Enhancing quality in the entire education sector
3. Promoting research-based knowledge
4. Strengthening training in systematic knowledge reviews
5. Strategic organisation and a collaborative work environment

Focus of this evaluation

Towards the end of the initial five-year period of KSU's operation at the University of Stavanger, the Ministry commissioned an external evaluation of KSU. The purpose of the evaluation was to assess KSU's activities in the period September 2019 to May 2024 and its plans for further development. More specifically, four evaluation questions were specified by the Ministry. These questions form the outline of this report, with our elaboration and recommendations.

Previous evaluations

In 2010, NFR received a mandate from the Ministry to establish a Knowledge Centre for Education (today's KSU). The background was the desire for more knowledge-driven policy development and a more research-based practice in the education system. KSU was formally opened in the spring of 2013. In the autumn of 2015, the Ministry announced an evaluation of the centre, and the Nordic Institute for Studies in Innovation, Research and Education (NIFU) was awarded the task. The evaluation was specifically asked to assess NFR's handling of the mandate to establish KSU, the council's hosting role for the centre, as well as to evaluate whether KSU's activities were in line with the guidelines originally provided by the Ministry. Additionally, the evaluation was asked to gather various user groups' experiences with the centre and to assess the Ministry's role in the ongoing development of the centre.

The evaluation showed that KSU had a relatively difficult establishment phase characterised by little stability in personnel. This challenging startup had unfortunate consequences for

KSU, especially regarding prioritising among the many different tasks and functions assigned to the centre in its mandate. Several weaknesses with NFR's hosting of the centre were highlighted:

1. NFR did not have access to the relevant research databases that KSU depended on to carry out its work.
2. The web-based solutions that NFR could offer the centre did not appear to be adaptable to KSU's dissemination needs.
3. NFR did not seem to have had a systematic follow-up on how KSU could be properly connected to (and what kind of relationship the centre should have with) the council's own education research programmes and other activities.
4. Placement within NFR appeared to create challenges for recruiting staff.

NIFU's conclusion was that KSU's activities were only partially in line with the Ministry's original guidelines. One interpretation offered was that the mandate emphasised a more technical dissemination function, while KSU over time had developed into an entity that engaged in its own knowledge development in the form of research syntheses/summaries and the advancement of methodology. NIFU also emphasised, however, that the Ministry's mandate was very extensive, and the resources allocated to KSU were of such a size that the many dimensions of the mandate could not realistically be fulfilled. The development of KSU's methodology and working methods was, however, in line with international developments, not least regarding the development of a greater diversity of methods whereby the findings of qualitative research could be synthesised. NIFU considered this to be an appropriate and relevant approach given the existing research in the field of education. Through its development of various concepts for research syntheses/summaries, KSU had shown that the centre took methodological steps that could give the centre a clearer profile in the long term. Looking at the content of the reports produced and the activities of KSU, a focus seemed to be on strengthening the knowledge base in teacher education, an aspect that was also emphasised in the original mandate.

However, NIFU found that experiences with and perceived usefulness of KSU among various user groups were mixed. In line with KSU's main activities, policy developers in the Ministry and the Directorate for Education and Training (Utdanningsdirektoratet | Udir), the agency under the Ministry responsible for kindergartens, primary schools and secondary schools, felt that the centre had, especially towards the end of the evaluation period, produced relevant and good reports that had been useful for them. Among users closer to the practice field, the perception was that KSU did not deliver much of relevance, and there was a sense that "user needs" were not met in the centre's activities. At the same time, although KSU was relatively well known among school owners, the same could not be said for school leaders, even though the centre had many products that specifically addressed schools. Overall, awareness, access and use of KSU's reports and products appeared to be rather limited, especially among school leaders.

The evaluation from 2016 has been informative for our evaluation in 2024. It shows why a university became host and gives background and context to the most recent mandate for KSU.

The expert panel

The Ministry appointed professionals from Norway and abroad with expertise in the centre's subject area and the field of teaching and education to conduct the evaluation (hereafter referred to as the expert panel).

The members of the expert panel were:

- Janice Tripney, Associate Professor, University College London, UK (Panel Chair)
- Camilo von Greiff, former head of Skolforskningsinstitutet, Sweden
- Cathrine Holst, Professor at University of Oslo (UiO), Norway
- Hilde Inntjore, Vice Rector for Education at University of Agder (UiA), Norway
- Anne Magdalena Solbu Kleiven, Director at The Norwegian Directorate for Children, Youth and Family Affairs (Bufdir), Norway

Contact information is provided in Appendix 2.

The evaluation process

As evaluation methods, the expert panel used document review and qualitative analysis of interviews with centre staff and stakeholders. The Ministry and KSU supplied background material and other documentation, including English versions of documents.

- The report from NIFU's evaluation of the centre in 2016 when it was based in the Research Council.
- The call for proposals from the Ministry.
- The application from UiS to become a new host institution in 2019.
- The guidelines and current strategy for the Knowledge Centre for Education at UiS.
- The centre's annual reports for 2020, 2021 and 2022.
- The centre's self-evaluation of the first funding period, conducted in 2023.
- The Ministry's Strategy for Educational Research (2020-24).
- Strategy for the University of Stavanger: Driving Force 2030 (2024-2030).

In addition, the expert panel gathered information useful to the evaluation through interviews with KSU management and team members, as well as other stakeholders in and around the centre. Interviews were held online or on site in Norway. A physical visit to KSU on 5th June 2024 gave the expert panel further insights about the institution and the working environment. For persons interviewed, see Appendix 3.

2. Evaluation of KSU activities

The evaluation panel assesses KSU's activities and plans for further development based on the four evaluation questions specified by the Ministry.

Q1. How has KSU responded to its national mandate as outlined in the guidelines and strategy for the centre?

The assessment is divided into five sub-headings aligning with the strategic goals for the period 2020–2025.

Strengthening the research base for practice, policy and research

Fourteen evidence reviews have been completed by KSU so far, and 11 are underway.¹ Some reviews have resulted in more than one publication: for example, a technical report written in Norwegian plus an English-language version published in a peer-reviewed journal; a protocol published prior to a final report; or a follow-up article analysing a subset of studies included in the main review.

KSU reviews are predominantly scoping reviews and systematic maps, with projects covering the entire educational sector from early childhood education and care (ECEC) through to teacher education and vocational learning. Scoping reviews are conducted with the purpose of offering a comprehensive overview of a topic requiring exploration, such as clarifying concepts or framing of research in a fast-evolving field, but do not usually synthesise study results (Campbell et al., 2023). Systematic maps (or mapping reviews) report on the extent and nature of existing research on a (often broadly specified) question of interest. Though sharing many similarities with the goals of a scoping review, they tend to have a higher level of data extraction and classification and will often present results in user-friendly formats using infographic tools (Miake-Lye et al., 2016).

Full systematic reviews differ in that they set out to identify and retrieve the available evidence addressing a specific, focused research question and to appraise and synthesise the results of this search to inform practice and policy decision-making processes (Gough et al., 2017). A systematic review is likely the most valid approach when the goal is to answer precise questions, such as about the feasibility or effectiveness of a certain intervention or practice. Four systematic reviews have been completed by KSU so far, with two in preparation. Topics include linguistic and social inclusion of minority-language children, teacher education, pedagogical practices, school bullying, and school-home cooperation.

Systematic reviews and other evidence synthesis projects are expected to provide the highest level of evidence for decision making. Still, since they are subject to a range of biases, such as when a systematic review does not identify all available data on a topic, it is important that end users can distinguish high quality reviews. In the following, the expert panel examines how KSU reviews are planned and conducted.

As a 'reviews facility', KSU adopts a flexible and responsive approach to delivering relevant evidence for decision-making, rather than demanding particular methods to collate, summarise and synthesise evidence. The reviews produced are of high scientific quality. Reviewers follow a structured process that requires rigorous and transparent methods to ensure that the results are trustworthy, reliable and offer potential value to various stakeholder groups. Several reports refer to use of guidelines from the Evidence for Policy and Practice Information and Coordinating Centre (EPPI Centre) in the UK which has developed and refined methods to support the conduct of systematic reviews and their use in decision-making over many years. Less prominent was KSU's use of broader support structures and formal procedures and standards (e.g., PRISMA reporting guidelines and methodological standards for the conduct of systematic reviews produced by organisations such as the Campbell Collaboration).

¹ This and other references to specific numbers of activities refer to the time period covered by the self-evaluation report.

In accordance with their organisational strategy, KSU's activities over the first years have prioritised evidence syntheses for kindergarten, basic education and teacher training. This is fully understandable, however the needs of user groups left out now need to be met. Working with the education sector to find out which parts, and which topics, should be focused on next is a priority. Furthermore, a significant proportion of the reviews currently being produced by KSU appear to be initiated by researchers rather than policymakers or other potential end-users.² KSU provides some details on who can propose review topics, including circumstances where new projects might be actively sought by KSU. For instance, the GrunnDig project was awarded to KSU following an open call. However, it is not obvious how the proposed topics are weighed against one another, and the final selection made. Nor is it clear whether the topics selected for review are the most relevant for key stakeholders. Overall, there is need for a clearer justification of decisions taken and scope for KSU to further clarify and develop the process of selection of review topics.³

Each KSU review is conducted by a team with a range of experiences. A collaborative approach to team composition, in terms of both domain expertise and methodology, is widely recognised as helping produce high-quality evidence syntheses more efficiently. The KSU team selection procedure or justification is rarely explained, and it is often not clear what contribution each author has made to a specific review. Several review teams include prominent researchers in the topic area concerned, including colleagues from other centres in the Faculty of Arts and Education (UiS), whilst other reviews have received considerable support from internationally renowned methodological experts. It may be appropriate to consider incorporating a wider range of stakeholders into review teams or establish advisory groups, or panels, representing them. KSU explained their establishment of advisory groups as a relatively new method for their projects. Stakeholder input needs to be carefully managed, but they might consider including not only practitioners or policy-oriented experts but also actors targeted by interventions, such as parents, to gain different perspectives and expertise. Greater engagement across academic and non-academic boundaries could be helpful in ensuring that KSU reviews address issues that are important to a broader set of stakeholders and that the results are presented in a way that stakeholders find meaningful and accessible.

Explicit and transparent a priori methods are emblematic of systematic reviews. The process starts with a pre-specified protocol detailing how the review will be carried out. Published protocols are a recent addition for KSU, with only one registered on the Open Science Framework (OSF) platform (<https://osf.io/4znzp/>). It was encouraging to see that the peer-reviewed, open access journal *Nordic Journal of Systematic Reviews in Education* (NJSRE), established by KSU in 2023, accepts protocols. Two have been published so far. One is authored by Norwegian researchers based outside KSU; the other describes the plans for a review led by a team from Italy and USA. Since they are a means of minimising bias in reviews, KSU should consider making it a requirement that protocols for all planned reviews are registered or published. Review commissioners and other stakeholders could be invited to comment on each protocol before it is approved and made publicly available. Protocol

² KSU academic staff have 30% personal academic time where they can pursue their own interests.

³ Existing models to consider include initiatives identified by the Cochrane Collaboration's Priority Setting Methods group (<https://methods.cochrane.org/prioritysetting/>).

registration in a registry such as the International Database of Education Systematic Reviews (IDESR) (<https://idesr.org/>) is one option.

The Ministry has clear expectations for KSU to strengthen the research foundation for both practice and research fields, as well as for policy level. All our informants expressed that KSU largely fulfils this part of its mandate. Arguably, however, KSU has been most successful in strengthening the evidence base that informs research, with their reviews informing decisions about future primary studies and evidence syntheses. Scoping reviews without synthesis of findings (a notable proportion of KSU reviews) are less able than full systematic reviews to directly inform policy and practice, although they can give policy makers a series of options. Policymakers frequently ask broad, complex questions and using a scoping review approach may be most appropriate. This is especially the case when sensitivity to the Norwegian context is a major consideration, since narrow review questions risk producing reviews with no eligible studies.

Knowledge translation is another important strand of KSU's work and includes creation of a short summary of each review, typically two-to-five pages, containing an outline of the background to the study, how it was carried out, main findings and potential implications of the research. This process implies that before being disseminated to key audiences, evidence must be transformed for its use in decision-making. Research evidence presented in complex and technical language is simplified into concise, readable and persuasive messages so that target audiences can understand it better, which is important when communicating findings to non-experts (i.e., those who are not familiar with review methodology).

KSU also summarises relevant systematic reviews published elsewhere. Considering the amount of time and resources it takes to produce systematic reviews, this activity recognises the importance of not adding to research waste by commissioning new reviews that may not be necessary. There are currently over 100 of these research summaries (forskningsnotater⁴) presented in a searchable database hosted on KSU's website.

The expert panel has some concerns about the form of the summaries, relating to how they deal with the relevance and quality of evidence contained within each systematic review. First, limited discussion is made about how the results could be understood in different Norwegian contexts. In the summary of the systematic review by Beatson et al. (2023), for example, it is simply noted that the authors themselves conclude that it is hard to say if the results they present about the transition from elementary school to secondary school are relevant for other countries since 16 of the 26 included articles are from USA. Second, although summaries include some details about the limitations of the systematic review, they do not appraise their methodological quality (e.g., using AMSTAR, AQASR or SURE) or include assessments of the strength or certainty of the evidence (e.g., using the GRADE approach). Readers who are unaware of potential risks of bias in interpreting results and drawing conclusions may place more confidence in the synthesised findings of a body of evidence than is warranted. To meet these challenges, there is a rich diversity of frameworks and tools that KSU might use to take account of context in systematic reviews and convey uncertainty about the evidence. Inspiration could perhaps be brought from the series of

⁴ Translates from Norwegian to English as "research notes".

research summaries produced by McMaster University in Canada⁵ or the Swedish Institute for Educational Research (Skolforskningsinstitutet) (<https://www.skolfi.se/>). The Cochrane Collaboration's evidence-informed checklist for people creating dissemination products may also be helpful.⁶ Making such improvements could increase the likelihood that different target populations have a better understanding of the information presented in research summaries produced by KSU and be able to factor it into their decision-making.

Enhancing quality in the entire education sector

As one of several actors generating and disseminating knowledge to the education sector in Norway, KSU collaborates with many others within this system to both strengthen the use of research and contribute to quality development in research (see our response to Q2 for more on this issue). KSU can point to many successful relationships, collaborations, and joint activities and publications. Some examples are given here. Internationally, KSU collaborates with OECD in connection with the project Strengthening the Impact of Education Research. KSU is part of an international community developing methodology for systematic reviews, together with research centres from the UK (EPPI Centre <https://eppi.ioe.ac.uk>), Belgium (Leerpunt <https://leerpunt.be>), Germany (DIPF <https://www.dipf.de/en>) and elsewhere. Together with Filiorum (Knowledge Centre for Kindergarten Research, UiS), KSU is responsible for updating the database Nordic Base of Early Childhood Education and Care (NB-ECEC). The work involves mapping and quality-assuring Scandinavian kindergarten research. The Norwegian Network for Systematic Knowledge Reviews (NORNESK <https://www.nornesk.no/forsiden>) is a cross-sectoral network that works to increase the demand, production, and use of systematic knowledge reviews in all academic fields and scientific disciplines. KSU is part of this network along with six other institutes, mainly from the health sector. Finally, the centre is often invited by external organisations to sit on research advisory panels for applications to NFR.

These are positive developments. It is evident that the host institution has good national and international status and networks that KSU taps into. At the same time, the impression formed by the expert panel is that being a national centre sometimes makes it easier to collaborate with other universities than within their own university. There is undoubtedly internal cooperation within UiS, but it is not clear from the documents and interviews conducted by the panel how formalised these relationships are. Udir also expressed concern that the centre, its website/resources, and its work could be better known within the directorate and the education sector - both kindergartens and schools. For instance, while the research department at Udir is well-acquainted with the centre and collaborates with it in various contexts, the department responsible for competence development and teacher training is said to be less familiar with the centre's resources and publications.

Networks and collaborations help make KSU known and increase quality by connecting various academic environments and expertise. KSU has a large network, organises activities (such as webinars) involving various stakeholders, and works purposefully to raise awareness of the centre. One of the main facilitators to KSU's efficient functioning to date

⁵<https://www.mcmasterforum.org/networks/covid-end/archive-for-covid-end-global/resources-to-support-the-public/plain-language-summaries>

⁶<https://training.cochrane.org/sites/training.cochrane.org/files/public/uploads/Checklist%20FINAL%20version%201.0%205.pdf>

has been close relationships. The expert panel's view is that there is still a need to strengthen this effort and perhaps explore broader and new target groups.

Promoting research-based knowledge

In taking steps to share the results of their reviews so that they have the greatest possible impact, KSU recognises the importance of both dissemination and translation strategies to make them accessible to decision-makers and stimulate their use.

Research conducted under KSU auspices is disseminated through various channels to increase the likelihood that the findings will be understood and used by the target audience. Digital dissemination via a website, webinars, podcasts and social media content are all notable measures and there are many others. For instance, the centre has produced interactive evidence gaps maps and collaborated with UHR-LU, a sub-organ of the national body, Universities Norway, which has a strong focus on research-based education, to produce a digital teacher education portal with over 80 resources (<https://www.uis.no/nb/velkommen-til-laererutdanningsportalen>). KSU staff have also promoted use of research, especially evidence syntheses, by hosting seminars, attending national and international conferences, and establishing a new academic journal to publish high-quality peer-reviewed content on systematic reviews. Many of these initiatives demonstrate KSU's awareness that active dissemination involving interaction and collaboration with relevant stakeholders in the sector are likely to be a more effective means of enhancing use of research than passive communication strategies (Langer et al., 2016).

The self-evaluation report expresses KSU's confidence about what has been achieved. As regard to dissemination towards policy and research, they rank their accomplishment as "very good", whereas as regards to practitioners they rank themselves as "moderate" (Table 10, p.39). KSU shows great insight into the need to increase the awareness of the centre among practitioners and their use of the centre's products. The report also discusses some options for action that seem relevant.

Stakeholders emphasised KSU's crucial role in both producing systematic reviews and research summaries and communicating these to various target groups. They highlighted several significant projects and publications that have been particularly important for national authorities and the sector:

- KSU's Collaboration with the Centre for Early Childhood Research at UiS, Filiorum, on Scandinavian Early Childhood Research over 16 Years: Trends, Gaps, and Opportunities. Researchers at the Knowledge Centre for Education and Filiorum have collaborated to publish a knowledge overview examining developments and trends in Scandinavian early childhood research from 2006 to 2021.
- SpedAims - Centre for Special Education Research and Inclusion. The leading academic environments in Norway, including those from KSU, initiated a collaboration in the spring of 2022 to improve the quality of research in special education and inclusive practices. This project has so far resulted in several systematic knowledge reviews on research in the Nordic countries regarding the inclusion of students with special needs.
- GrunnDig - Digitalisation in Primary Education: Knowledge, Trends, and Future Research Needs (KSU, Volda University College and University of Oslo). This collaborative project provided an overview of research and experience in digitalisation within primary education.

It aimed to contribute to more consistent terminology, prepare for a larger research project, and improve the dissemination of recent research.

The picture given to us in the stakeholder interviews very much confirms the picture given by KSU in the self-evaluation report. Dissemination has been most successful in relation to the policy and research communities, less so when it comes to practitioners. This is not because KSU has put less effort into practitioners but rather that this is a more challenging target group. However, the expert panel saw examples where strategic and targeted dissemination measures could make a difference. Through collaboration with Udir, for instance, KSU could reach the practice field more broadly through the directorate's channels and national networks. The already mentioned project, GrunnDig, is an example where research was disseminated and communicated in collaboration with practitioners through various activities and products, including a webinar hosted on the directorate's website (<https://www.udir.no/>).

Focusing on the national and practice level, it is natural to consider what Norway's largest union for the education sector, Union of Education Norway (Utdanningsforbundet) emphasised during the interviews.⁷ Utdanningsforbundet is largely satisfied with KSU, and they are developing their own notes and articles for teachers based on the centre's evidence syntheses. Many are included in the union's research portal for employees in the education section, which currently has over 3500 articles (<https://utdanningsforskning.no>). However, the union sees potential for increased awareness of KSU and its publications among teachers and school leaders. They also pointed out a need for more professional content and research summaries on parts of the sector that are often overlooked, especially vocational education and adult education. A further message was that practitioners can be somewhat confused by the different types of centres disseminating research, and various centres' websites can make it challenging to find the knowledge they seek.

Interviews with employees and the director at the centre provided several in-depth reflections on dissemination, visibility and impact. The geographical location in Stavanger is widely viewed as beneficial for the centre. UiS has a good Initial Teacher Education programme, hosts relevant conferences, and fosters a robust network. Employees emphasised how the centre's strategy prioritises making research impactful and useful. While researchers may find certain topics important, broader impact is often achieved when projects align with the interests of the Ministry and Udir. There appears to be a difference in the impact of projects initiated internally compared to those commissioned by national authorities. It came as no surprise that the publications of KSU widely perceived as having the greatest influence on national policy, such as digitisation and special education, are among the prioritised themes in the Ministry's current strategy for education research.

Udir also provided insights into how KSU fulfilled their mandate and reaches the practice field nationally. In an interview with representatives from the directorate, they highlighted that Udir's website is widely used and known among municipalities, county authorities, leaders, and teachers in both kindergartens and schools. It was felt that resources made available through the directorate significantly impact practice in kindergartens and schools. There is a great need for knowledge-based development in the practice field, and systematic reviews on various relevant areas are in demand and regarded as essential.

⁷ Represents professionals with teacher and academic qualifications within the entire Norwegian educational system.

Our overall assessment is that KSU has made great efforts to communicate and disseminate different evidence syntheses to the entire education sector. This is a substantial achievement for such a small research centre. For policymakers and researchers, based on the evidence available to the expert panel, our view is that the work has been largely successful. The most influential projects highlighted by different stakeholders largely align with those mentioned by the centre itself in presentations held for the panel. There are notable examples of government agencies having detailed knowledge of the centre and making use (in some form or another) of its products. Similarly, awareness of KSU in the research community appears to be considerable, with the centre recognised as being well established and highly respected.

The expert panel is more concerned about education practitioners as a target group. Impacting decision-making in education practice (alongside that of policy) is one of the main goals of KSU reviews. However, KSU's knowledge about practitioner's awareness of the centre and their use of its products appears to be largely based on anecdotal information and web traffic statistics. In the self-evaluation report, there are statements about use of KSU research that are assumptions rather than rigorous impact assessments. Impact is about much more than disseminating research, which means impressive numbers of visitors to a website is only part of the story. Tracing the contribution that research makes beyond the academy is hard to achieve, but more efforts from KSU would almost certainly be worthwhile.

Strengthening training in systematic knowledge reviews

KSU has successfully established doctoral level degree courses that form part of national research training for the whole educational research sector, although the number of participants until now have been quite low. Participants have included PhD candidates from all over the country, along with academic staff and researchers from other institutions. KSU has even conducted courses internationally, in Portugal and England. Feedback from participants is good. Other institutions across Norway run similar training, including the Norwegian University of Science and Technology and Western Norway University of Applied Sciences, though these tend to focus on medicine as a subject area. Thus, an important gap in the market is being filled by KSU. Whilst several KSU researchers are involved in delivery of this training (which accords with the general principle in Norway that all academic staff both teach and do research), a substantial amount of the work developing these courses, particularly those on meta-analysis and qualitative evidence syntheses, appears to have been completed by the staff appointed to professor II positions. As KSU continues with methodological diversification, the expert panel suggests this recruitment strategy could be continued.

Another accomplishment is the *Nordic Journal of Systematic Reviews in Education* (NJSRE), an open access, international research journal established and operated by KSU. The journal uses double anonymous peer review, with peer reviewers encouraged to use guidelines such as the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) checklist intended to ensure authors follow minimum best practice and meet the widely accepted standards for systematic reviews. Published by Cappelen Damm Akademisk, a leading commercial publisher of scholarly journals, the journal is likely to be attractive to authors because they retain unrestricted copyrights and publishing rights, and the journal accepts manuscripts in the Scandinavian languages and in English. There are no

article processing charges (APCs) to publish with the journal and end-users do not pay fees to access articles. NJSRE started accepting manuscripts in March 2023, so the number of articles published so far is encouraging. Having received an ISSN in early 2024, it will soon be listed in trusted bibliographic databases and citation indexes, thereby improving the reputation and discoverability of the journal. Usage statistics for published articles are reassuring, although social media activity promoting the journal is less than ideal: the most recent post from the journal's X (formally known as Twitter) account is November 2023.

The expert panel asks KSU to reconsider the scope of the journal. It notes that the journal accepts various forms of high-quality evidence syntheses (e.g., meta-analyses, systematic scoping reviews, evidence gap maps), as well as protocols for systematic reviews related to a broad range of research relevant for education and educational policy. An important omission, in our view, is methodological studies (i.e., methods research related to the preparation and dissemination of reviews): for example, primary studies exploring sources of bias in systematic reviews, methodological options for reviews of theory, development of tools to facilitate semi-automation in reviews, and assessing the impact of research.

One area where the goals set out in the strategy document have not yet been fully met is the development of master's courses, although the self-evaluation report refers to this matter and outlines plans for the future, including a stronger focus on online courses. KSU's achievements in terms of web-based guidance on systematic reviews are also relatively limited, extending mainly to podcasts introducing knowledge overviews and meta-analysis. With some of the stakeholders interviewed by the panel clearly confused about the selection process determining which studies would be included in each systematic review (the high proportion of studies from the USA viewed as especially controversial), it is important that KSU produce additional guidance to avoid misunderstandings. KSU further indicate in their self-evaluation report that they have worked with staff (presumably information scientists) in the university library but there looks to be untapped potential to develop this partnership.

While the expert panel acknowledges KSU's important contribution to raising awareness and capacity building in systematic reviews on education topics, both in Norway and internationally, we raise concerns about how much time and resources can be devoted to this, considering the centre's main goals are to synthesise and disseminate/mediate research for the entire educational sector. If the level of KSU's resources remain the same, we believe the Ministry need to clarify for KSU how they should weight the work relating to this part of the mandate in relation to other activities.

Strategic organisation and a collaborative work environment

KSU have taken a strategic approach to building the centre, with very clear thoughts on recruitment, research culture and working environment. Both the director and employees remarked upon this in the interviews. The leadership's hiring strategy was to stagger the appointment of new staff and slowly grow the number of employees during first five-year period. As of 31 December 2023, KSU have six permanent academic staff: two professors and six associate professors. They also have three research fellows (PhD candidate or postdoctoral researcher) in fixed-term research positions, all of whom joined in 2023.

Achieving the strategic goals depends on KSU recruiting skilled employees. Whilst the panel's assessment is that KSU's approach has been successful in as much as the centre functions well and has produced valuable work, some decisions might be challenged.

KSU have undoubtedly attracted high-quality academic staff with specialised knowledge and understanding of education as a field of study. However, while most had authored or co-authored at least one review prior to joining KSU, none had specialised in the methods for systematic reviews. The exception to this is the appointment of experienced methodologists to two part-time adjunct professor II posts (20%), both recruited from abroad. Also notable is that most staff are employed in senior academic positions (*førsteamanuensis*). To a degree, the composition of staff appears out of keeping with UiS's application to become the host institution for KSU which proposed that the recruitment base would draw heavily on (a) newly qualified PhD candidates who would consider work on knowledge reviews to be an important part of the postdoctoral period, and (b) KSU's training efforts through MA and PhD courses. We note that other parts of the Faculty of Arts and Education have a significantly higher proportion of assistant professors and postdoctoral research fellows. The composition of the broader support team in the research ecosystem at KSU is also of interest. KSU has appointed research communication advisors as part of their professional services staff to develop web resources for user groups and assist in wider research dissemination. Given the centre's knowledge-brokering remit and the emphasis on this in both UiS's application to host KSU and the self-evaluation report, it seems significant that no employee is listed as a knowledge exchange specialist, this role having emerged as a distinct profession across higher education in recent years.⁸ Finally, there is the important question of whether or not leadership of the centre relies too heavily on the actions of one key person. It might have been wise to utilise more distributed leadership opportunities to deal with succession planning, including the appointment of a deputy.

Though small, KSU has a very ambitious and enthusiastic staff who clearly feel ownership and pride in the centre's work. Interviews revealed the extent to which they value the centre's leadership, cooperative working environment, and opportunities for professional development. KSU has developed organisationally to keep pace with the centre's growth. Although it currently has adequate space (provided by the host organisation) to accommodate all staff, it looks to have reached capacity. The centre's growth was mentioned during interviews with employees, with subtle suggestions about a growing distance between the academic community and administrators which had not been there in the early years. Although this change was largely accepted, respondents felt KSU should create a clearer career development plan for all members of staff (academic and otherwise). Predictably, academic staff are aware that authorship is important for career progression. There did not appear to be any ill-feeling among staff or disputes as such, but the challenge of working on projects that do not lead to academic publications was mentioned. Concerns were also raised over authorship practices, with some confusion over entitlements to recognition and credit for their contributions to published work.

Q2. What role does KSU play nationally and internationally in the knowledge ecology and in the use of systematic reviews?

The Ministry's most recent Strategy for Educational Research highlights KSU as a key player in the knowledge ecology and in the use of systematic reviews. A primary ambition is strengthening the centre to support the further development of its role as a knowledge

⁸ Called knowledge brokers, intermediaries or mobilisers, among other names, these specialists operate at the intersection of academic and administrative worlds, working to create connections between researchers and different audiences.

broker. Moreover, the Programme for Research and Innovation in the Educational Sector (FINNUT, 2014-2023) mentions KSU as one of several key actors in the educational research and development sector and highlights the centre's major role in facilitating knowledge sharing and dialogue about research.

During the evaluation period, KSU seems to have consolidated and advanced its position in the international community of knowledge brokerage agencies which aim to support evidence-informed policy and practice.⁹ In recent years, the number of these centres in the field of education has increased on the international scene (Wollscheid & Opheim, 2016). KSU remains the only centre with this exclusive focus in Norway and is internationally highly active. It cooperates closely with similar initiatives in other countries, organises international events such as workshops and webinars, and participates actively in relevant academic seminars and conferences, at home and abroad. KSU has organised several PhD courses with international recruitment and established a new peer-reviewed international journal focusing on systematic reviews. KSU employees make significant contributions to scholarship, and the director is a highly recognised and esteemed figure within this field.

Internationally, and even among the Nordic countries, there is considerable variation in the profile of knowledge centres (also called clearinghouses, what works centres and knowledge intermediaries) regarding affiliations, audiences, functions, and methodologies (Gough et al., 2022). Only some conduct systematic reviews. While some centres, like KSU, are part of a university, others are private companies, embedded in a ministry, or units operating at arm's length from government. Over time, there has been a general shift in the focus of these organisations, away from policy and towards the needs of practice (Burns & Schuller, 2022).

The national role and goals of KSU was much more prominent in the application, strategy and self-assessment reports than the international position and ambitions of the centre. Furthermore, KSU in the context of the international knowledge ecology was seldom raised during interviews with stakeholders. This emphasis on the position of KSU in the national landscape of knowledge and expertise is also in line with the mandate from the Ministry. Generally, knowledge production in the field of education, education policy and educational practice is relatively extensive in Norway. It includes university research, both basic and applied; institute research primarily with a policy- and/or practice-oriented profile; considerable in-house knowledge production within relevant governmental ministries and directorates; reports from advisory committees, such as official Norwegian reports (see Steiner-Khamsi et al., 2019); and consultancy. KSU has a distinctive profile and is well recognised in the national academic community of educational policy and research as the only unit with a special responsibility for developing and delivering systematic reviews. However, many other actors in Norway, such as NIFU, also produce reviews in this area (<https://www.nifu.no/en/bibliometri/>), and the division of labour between KSU and these other centres and research environments could be clearer. Importantly, KSU has participated actively and in a central role in national networks (e.g., NORNESK) that work on developing the quality and standards of systematic reviews.

There is generally close communication between KSU, the Ministry and Udir regarding priorities, thereby strengthening KSU's capacity to help shape the national agenda and

⁹ The Ministry calls KSU a knowledge brokerage agency (Mouthaan et al., 2023) so we use this term here.

policies of the government and public bodies. KSU's policy relevance, as well as the high trust that individual decision-makers have in KSU, its leadership and staff, are clear strengths. It is, however, still important to maintain KSU's authority and scope to initiate reviews on an independent basis, in response to insights from international research, other stakeholders who are affected by or responsible for research and policy, or similar centers in other countries.

Academic quality and credentials are stressed both in the strategy and self-assessment of KSU. We see this also in the recruitment and composition of staff. Furthermore, KSU takes an active role in the academic community and aims to deliver reviews and participate in more general academic inquiry, debate and reflection. This is important, but there may be a need for clearer (academic and non-academic) priorities and strategies, considering KSU's responsibilities to take a leading role in supporting and facilitating the use of research and have high policy relevance.

KSU emphasises knowledge communication and dissemination to policymakers and practitioners and aims at being *the* national agency which aims to support evidence-informed policy and practice at all levels of the education system in Norway. As indicated, there are several important examples of how KSU has influenced national policy and policy agendas, and communication activities are extensive and tailored towards various audiences.

Still, it is unclear if KSU plays the national role envisaged. Our interviews revealed that professional organisations and practitioners are not always aware of the centre's existence, role and products. In terms of dissemination structures, the Norwegian educational sector currently gives off a rather chaotic impression, with several centers, organisations, units and actors taking on overlapping roles in communication and dissemination of knowledge.

Stakeholders and experts generally consider the Stavanger region and the UiS a central cluster for knowledge production in the field of education in Norway, including several research centres and a well-established Initial Teacher Education programme. This no doubt constitutes a vigorous environment for the development of educational research, policy and practice. KSU has an important position within this vital regional/local knowledge ecology, with important ongoing links and cooperation with relevant actors from the Stavanger area, inside as well as outside the university context. Importantly, review teams include researchers from other centres within the Faculty of Arts and Education, and KSU collaborates closely with the UiS research centre Filiorum on kindergarten and early childhood research, among others. A newly hired PhD candidate works on a project cooperating with a nearby municipality and exemplifies how KSU links up with local policy and practice initiatives.

Q3. What will be the main areas of development for KSU? What does it take to realise these?

Although KSU has done solid work based on its mandate and its location, there is room for development in the future. Some of our observations and advice for how to move forward align closely with what KSU themselves express in their self-evaluation report and some are new. We emphasise that continued funding, at today's level or increased, is a fundamental prerequisite for development. Based on the assessment presented above, the expert panel proposes some overall recommendations for KSU.

It is not completely clear how KSU positions itself and what kind of centre it seeks to be in the context of the international landscape of knowledge brokerage agencies. The self-assessment report briefly mentions that KSU pursues a “Nordic model” approach but does not explore further. The label has been used, by Howard White (2019) and others, to describe government-funded research units in Denmark, Sweden and Norway which are staffed by research teams whose main job is to produce reviews to inform national decision-making. Direct interaction with government agencies to agree priority topics and discuss emerging findings is central. Though this model might accurately describe KSU when it was a unit within the Research Council, the situation changed upon the centre’s move to the University of Stavanger. First, KSU is now based in a university which means that academic staff have major incentives (and institutional pressures) to publish scholarly articles to enhance their own reputation and career progression in higher education. Second, KSU now has a stronger remit to gather and disseminate knowledge to educators via various channels and (unlike its work across government) direct dialogue with practice-oriented decision-makers becomes less feasible. Both changes have major implications for KSU that we feel it must do more to address as it further develops its identity.

KSU use explicit rigorous methods of evidence synthesis to bring together what is known from many studies and has completed diverse types of reviews that are of use to different user groups in the education sector. Moving forward, the expert panel recommends that KSU (a) rely more regularly on well-established international support structures and published methodological and reporting standards, and (b) always register or publish protocols prior to project commencement. The expert panel also believes KSU’s work would profit from developing and clarifying the processes of topic selection and team composition. More often including practice- or policy-oriented experts in review teams and/or advisory groups should be considered. The panel further suggest that KSU takes a more central role in the coordination of the production of systematic reviews in the field of educational policy nationally, in close cooperation with the Ministry and Udir, and other relevant applied research and reviewing environments including NIFU. Finally, full systematic reviews with narrowly focused questions are important as a trusted basis for policy and practice decision-making, so we recommend that this review type be given greater emphasis in KSU’s future work.

The expert panel recommends that KSU puts work on knowledge translation higher on the agenda. At present, KSU and their products are not well enough known in the practice field. There are also a significant number of other actors in Norway providing research for practitioners. There is therefore a need for KSU to explore new ways of making evidence easily available and accessible. The panel would suggest re-designing the current “research notes” into a series of summaries where enhanced knowledge translation, user needs, and context are put centre stage. Interprofessional collaboration would be key. KSU could choose to improve its own dissemination channels and activities in partnership with practitioners or representatives from local/national organisations. Alternatively, KSU could provide its research summaries and other products to another actor with greater outreach to practitioners, for example Udir or Utdanningsforbundet, and not include them on their own website. This would require KSU to cooperate more strategically with other national institutes, organisations and authorities. A much more radical suggestion would require international cooperation to help build the evidence architecture on a global level. Specifically, KSU might explore a formal partnership with the Education Endowment

Foundation (EEF), one of the UK's What Works Centres, leading to the purchase of a licence that would allow them to reproduce EEF's Teaching and Learning Toolkit ('Toolkit'). The Toolkit already has localised versions in different languages in Cameroon, Chile, Jordan and Spain (Higgins et al., 2021). A version is used by Evidence for Learning, an Australian knowledge centre (<https://evidenceforlearning.org.au/>). KSU's experience developing the teacher education portal would offer distinct advantages here, and the centre could have a central role in adapting any such portal to local contexts.

The expert panel are unclear if KSU's approach to communication and dissemination is evidence-informed or has been developed in a more ad hoc manner without a comprehensive understanding of the various goals and needs of different stakeholders. We think an important action for KSU should be to systematically appraise the existing evidence ecosystem for education in Norway. Conducting a needs analysis would involve examining the nature and extent of any deficiency in the relationship between production and use of research evidence and looking to see where and how KSU could best contribute (Gough et al., 2022). This type of assessment of the Norwegian context could subsequently inform the choice of strategies for enabling use of research evidence, thereby improving the functioning of the evidence ecosystem.

Web-based portals, research summaries and so on provide decision-makers with access to research findings without them needing to consult the original piece of research. For these to be useful and widely used, the user needs to know how trustworthy and relevant the findings are. Inadequate or inconsistent "evidence standards" have the potential to lead to misinterpretation or undue trust being placed in research findings (Gough & White, 2018). When possible, the expert panel thinks it important that KSU includes estimates of the level of uncertainty and/or strength of the evidence considered in their evidence syntheses/ summaries. The fact that the standards used by different knowledge brokerage agencies vary widely is problematic. Therefore, the panel also suggests that KSU work with international partners on this matter and use widely accepted approaches for assessing or grading the strength of a body of evidence where these exist. Doing so could increase the trustworthiness of evidence used for decision-making.

KSU does not currently measure the impacts arising from its work. The significant methodological challenges in trying to link research findings to specific outcomes are well known. Multiple factors are at play, not least the decision-makers' personal values and experience. An added complexity is that it often takes time for research to have clearly demonstrable impacts. Influence, especially in terms of economic or societal change, may only be measurable after several years. The expert panel encourages KSU to explore options for monitoring and evaluating the significance, reach and impact that can be attributed to its research, including development of measures and indicators. KSU could then modify their knowledge exchange activities in response. Such assessments would also allow KSU to contribute to the growing body of scientific literature on the use of evidence to improve policy and service delivery.

Manville et al. (2015) distinguish between prerequisites and enabling characteristics of high-performing research units. The prerequisites are first and foremost people. To recruit, retain, develop and have a good mix of staff are amongst the most crucial factors. Strong leadership, culture and values were also important, as well as individual autonomy balanced with affiliation and group dynamics. KSU has all these features. As mentioned above, KSU

researchers are given considerable autonomy (30% personal academic time). Ensuring academic researchers' right and freedom to decide on investigative topics will, no doubt, help ensure that the centre continues to attract highly skilled and motivated staff. At the same time, a high level of individual autonomy could potentially damage efforts to achieve the strategic goals. Going forward, the expert panel recommends that KSU explore different options for balancing researchers' autonomy with the attainment of the mandate.

The panel has some concerns about KSU's ability to become the go-to centre for systematic reviews in Norway, based on the relatively small number of researchers compared to other centres in the faculty or independent institutes (such as NIFU). What KSU has produced so far is only a small proportion of all systematic reviews produced in Norway in the past five years. To increase the number and breadth of systematic reviews and other evidence synthesis projects, as well as promote and facilitate use of that evidence, the panel would recommend KSU to scrutinise its recruitment strategy so that it better aligns with its mandate. A general advice would be for KSU to accelerate its growth by developing more ambitious hiring targets, secure a team with a more adequate mix of early career and more senior staff, consider hiring more postdoctoral fellows and assistant professors, and prioritise recruitment of (a) individuals with extensive expertise in systematic review methodology and (b) knowledge exchange specialists. The centre should also consider appointing a deputy director.

A major challenge, and possibility, for KSU is artificial intelligence (AI). The emergence of AI in the education sector was sudden and is dealt with in various ways. This new technology challenges the core work that KSU does when producing reviews but has significant potential to transform activities such as developing and refining search strategies and extracting data from included studies. KSU has started a process of testing and exploring the effective integration of AI tools into the systematic review process, which is good. However, vastly increased resources must be assigned to this in the future. This is an area that needs significant strengthening. Contribution to the development and use of technology is part of the KSU strategy already. The sector needs a driving force to deliver on this task, and it is reasonable to think that KSU could have that role.

Q4. How appropriate are the framework conditions that KSU has today? What framework conditions will be important for the centre's further work?

In the self-evaluation report, KSU set out four scenarios and discusses the challenges and opportunities associated with them. We largely support the assessment made by KSU for these different scenarios. The first option is to continue with the same funding and distribution between the Ministry and UiS, and the same mandate, even if it is perceived as very extensive. The second recommends an altered distribution of funding between the Ministry and UiS, with more coming from UiS, while the third refers to no funding from the Ministry, and UiS and KSU fully funding the center. The fourth option is for the Ministry to increase the funding and develop the mandate further.

From KSU's point of view, options one or four seems the best course of action. Option one would secure their continuation and offer possibilities for steady development in the direction KSU has already chosen. However, they would have to prioritise ruthlessly and have a realistic level of ambition. Option four is a possibility that KSU welcomes a discussion on. Based on their experience, such a scenario could be developed gradually.

From the expert panel's perspective, we agree that both option one and four are best. However, we suggest an adjustment of the mandate regardless of which funding alternative is selected. Based on the experiences so far, the perhaps somewhat new direction that is seen for the center in the future, the mandate should be adjusted and renewed. Then, funding should be allocated accordingly. This would provide an inspiring and sustainable level of ambition for KSU.

We also provide some elaboration on the framework conditions. The mandate that KSU is given is what defines the center's tasks and what it is measured against. Therefore, the scope of the mandate will also govern what framework conditions the center needs going forward. Regardless of whether the mandate is to remain the same as the centre has today, necessary framework conditions are recommended from external and internal sources. The external ones are the Ministry, the University of Stavanger, and the Faculty of Arts and Education. The internal conditions come from within KSU, and mirror what the external ones must contribute.

The Ministry owns the assignment that the center has been given. Therefore, it must ensure that both the mandate and resources support goal attainment. Today, it seems KSU has a very broad mandate, without sufficient financial resources to cover it all. To achieve sustainable production and development, the mandate must be adapted, and the funding aligned accordingly. Predictability is also important for steady development and good recruitment processes. The Ministry should, therefore, provide a long-term strategy and support structure for KSU.

The University of Stavanger, which is the host institution, expressed significant ambitions for the centre in its original application, emphasising that UiS has strong networks, partnerships and an internal organisation of importance to the centre's activities. Now is the time to ensure that these ambitions are fully pursued and realised. The university's new strategy, however, does not mention KSU or place emphasis on the national responsibility for evidence-informed decision-making in education. Lifelong learning is one of six prioritised areas, and KSU might be thought of as part of this focused area. Furthermore, the current KSU Board has no member from the academic management at either university or faculty level. Following the establishment and startup phases, and in the aftermath of the pandemic, the host could now follow up on its responsibility as a host institution and provide representation from the university leadership to the board. This, together with greater technical and administrative support from the university, could contribute significantly to increased national visibility for the centre.

The Faculty of Arts and Education, the centre's connection to the host institution, is home to four other national centers. Three of these also have strong connections to, and relevance for, the educational sector. For practice-oriented user groups, however, it can be hard to distinguish between these research centers. All are mentioned in the faculty's most recent strategy, with plans to integrate them more fully in the faculty's study programmes. This has merits, but there is no guarantee it would help KSU improve its visibility and impact nationally. KSU indicates it spends a lot of time and resources writing grant applications. Increased support for this activity at university- or faculty level might be one way of contributing more.

The internal needs for KSU itself, as a research unit, are also important. For KSU, it is expressed clearly that the main feature of the framework conditions is funding. It is the funding that is the basis for the center's existence and defines any room for maneuver. This mirrors how important it is to have long-term support and strategic direction from the Ministry, as well as strong awareness of needs and support from the host institution. The growth and development of KSU depends also on an effective recruitment strategy, and staff costs must be secured for KSU to be an attractive employer.

As mentioned above, a new area to work in is AI. All providers of framework conditions for KSU must pull together if KSU is to have a national role in this area. The Ministry should incorporate this into the new mandate, and the host institution must prioritise this and link AI activities at KSU to its ongoing AI research and development. From the faculty, it is crucial that AI for KSU is linked to the exploration of AI in relation to all educational research.

The university run the Stavanger AI Lab (SAIL) (<https://www.uis.no/en/research/stavanger-ai-lab>), which is a node for research, innovation and education in AI. This unit, or a strong AI-unit at another university, could be useful for KSU, as we suggest KSU takes a leading role within Norway in developing research methodology for conducting systematic reviews with the assistance of AI tools, while also exploring the pitfalls and ethical implications of these developments. KSU itself expressed the need for someone to take the lead and drive these efforts forward regarding AI within their field.

Last, there are some reflections about the move from the Research Council to a university as host for the centre. The overall impression is that this was a good move. The centre thereby has a position in both a research environment and an environment that educates teachers. Interest amongst KSU researchers in conducting their own research is considerable at the centre, and this is likely to be affected by being in a university environment. However, a balance between research and other assigned parts of the mandate must be evident, and we do not see the host institution contributing enough to attain that. It is our general impression that the UiS has not completely understood its role as a host, the resources and role of KSU, or the centre's potential. The faculty, as well as the university, could provide better support structures and do more to enhance national visibility. It is understandable that the faculty wants to include the competence from KSU in their study programmes, as stated in the faculty strategy, and education is also part of the mandate for KSU. However, this refers only to study programmes at UiS and does not give KSU a stronger national position. The host should provide stronger administrative support, as the quality of these services is important for KSU to develop further.

To conclude, we first point at the importance of good alignment between mandate and resources and that the funding should either remain at the same level as today, or increase. A long-term strategy for KSU, by the Ministry, would provide good conditions for the centre's development. Increased support from the host institution at both university and faculty level is something we would suggest. Finally, exploring and developing AI in the field of systematic knowledge reviews should be reflected both in mandate and resources given.

3. Conclusions and recommendations

Based on the assessment presented above, the expert panel concludes that KSU has significantly improved the basis for decisions in Norwegian education policy and practice.

We acknowledge the thorough work KSU has executed in several areas, even though some of the framework conditions have not been optimal during the first years at UiS. The centre was affiliated with a new institution, and shortly after its new establishment the pandemic hit. Nevertheless, KSU has set clear priorities, worked strategically to achieve its goals for the five-year period, and has produced high quality work.

As KSU also points out, some challenges remain. The current mandate is extensive. We do understand that KSU has had to prioritise within this mandate and has therefore had greater goal attainment in certain areas than some others. So, as prioritisation of activities has been important, it also means the centre sees a lot of important work that should have been done, but which has had to be put on hold. Also, the work of applying for project funding, and new tasks such as to explore AI tools, does take a lot of time. The leader and the staff have very high ambitions for KSU, which is impressive and good, but can also lead to them stretching their capacity too far for too long.

From this overall opinion, the expert panel has the following recommendations for the Ministry regarding KSU and stabilising its future. These are presented as five main points.

First, we recommend that KSU continues. The centre has proven that it has contributed to high quality research-based knowledge that decision-makers at different levels can use, and that it has gained a certain position nationally and internationally. The demand for systematic reviews to support decision-making is not foreseen to diminish in the future. To respond to national strategies for the education sector and continue to influence high-level policy decisions, we consider that additional support, financial and other, and further development of KSU is a sound way to achieve this.

Secondly, we recommend that the Ministry clarifies its goals and ambitions for KSU. There is need for national planning regarding systematic reviews and knowledge translation in the field of educational policy, and a clearer understanding of the distinctive role and priorities of KSU within the larger ecosystem of research, reviewing and dissemination. Assigned tasks from the Ministry must be sensible and manageable based on KSU's resources and overall goals.

Thirdly, we recommend that KSU either receives the same funding as today, or that the funding increases. To build up such a centre does take time, and therefore it is also important that the funding is long term. Reflected in the strategies nationally and for the centre today, Norway's need for evidence syntheses, dissemination and knowledge brokering is well documented and aligns with the centre's key goals. The first phase for KSU at the host UiS is completed, several appointments are in place, and the centre has experiences from its early strategy and work to consider in its further development. Having the same or increased level of funding in the future will create continuity and ensure good opportunities progress.

Fourth, we recommend that the Ministry adjust the mandate for KSU. There have been important developments in this field since the first establishment of KSU in 2013, and its rearrangement from 2019. Both the national and international landscape, of which the education sector is a part, has undergone changes, which should mean that the mandate for KSU will also be adjusted somewhat. Not least, it is crucial that, for the centre's ability to achieve its goals, the mandate and funding are in harmony. This last point weighed heavily on the expert panel.

Fifth, we recommend that the Ministry consider including a new task in KSU's future mandate. That is, to be a national hub for developing, using and evaluating new AI technologies used to automate or semi-automate parts of the evidence synthesis process and further develop research methodology in this field. Such a task is huge, but nevertheless necessary to tackle properly. KSU has already seen the need for this and initiated some work, to gain experience and competence. The centre mentions in the self-evaluation report, however, that this takes time and resources away from the other tasks to be executed.

As our final conclusion, we would like to draw attention to KSU yet again. It is our clear opinion that KSU, with its director, Professor Elaine Munthe, at the forefront, has made impressive progress in developing the centre. A good and inspiring working environment has been established, with high ambitions among the employees who have consistently delivered high quality work. In this evaluation, we have gone into depth on the questions given us as an expert panel, and therefore the report covers broad areas and several recommendations. These are intended as well-founded suggestions and a resource for the several strategic choices that must be taken going forward. We acknowledge there are many possible directions for the centre's future development, and that KSU employees are the ones who best know their own field and potential. We hope that this report, with its findings, considerations and comments, will contribute to the choice of path going forward.

Appendix 1: Strategy for the Knowledge Centre for Education (KSU) at the University of Stavanger

The main purpose of KSU is to compile and disseminate national and international research in the field of education, work systematically to develop the genre of knowledge reviews, and enhance expertise in compiling and summarizing research findings in collaboration with Norwegian researchers and international actors.

- The academic environment will produce high-quality and relevant knowledge reviews that cover the entire education sector.
- The academic environment will contribute to national competence and knowledge development in knowledge reviews through researcher training.
- The academic environment will build capacity and competence in the discipline of knowledge reviews at other institutions within the higher education sector by seeking collaboration.
- The academic environment will be internationally oriented and seek collaboration with relevant research environments.
- Through its activities, the academic environment will develop and disseminate knowledge to relevant actors in the education sector, presenting research findings in an easily accessible and understandable manner.
- The academic environment will promote the use of research in policy-making and practice development in the education sector. Additionally, the centre will monitor the research frontier, identify areas needing more knowledge, communicate this to authorities and research environments, and create forums for education research involving researchers, practitioners, and policymakers. Dissemination will be tailored to the centre's various target groups within policy development, administration, research, training, and teaching.
- The Knowledge Centre for Education will be an entity with academic authority and independence, free to disseminate knowledge and express itself on an academic basis within its area of responsibility.

Strategic Goals for the Knowledge Centre for Education 2020 - 2025

⇒ Strengthening the Research Base for Practice, Policy, and Research

A primary responsibility of KSU is to develop and disseminate systematic knowledge reviews and mappings. The centre will define significant areas for these and engage in dialogue with stakeholders or seek research project funding. The entire education sector is within its scope. In the first five-year period, KSU will focus on knowledge reviews for kindergartens, primary education, and teacher training for kindergarten and primary education. Systematic knowledge reviews for higher education will also be included as much as possible. Therefore, the centre will focus on the methodology of systematic knowledge reviews rather than a specific niche. KSU will have specialized competence in various forms of systematic knowledge reviews and contribute to the development and use of technology supporting this work. The work done by KSU must be of high quality and subject to peer review. KSU will emphasise publishing in international journals in addition to popular science dissemination.

⇒ Enhancing Quality in the Entire Education Sector

KSU is one of several actors working on presenting and disseminating knowledge to the education sector. We will collaborate within this system to strengthen the use of research and contribute to quality development in research. Important goals for the five-year period include:

- Establishing effective communication with other knowledge actors.
- Actively participating nationally and internationally in collaborative projects and dissemination.

⇒ **Promoting Research-Based Knowledge**

Strategic and targeted dissemination is a central area of work for KSU. KSU will establish targeted dissemination measures that invite interaction and reflection and stimulate the use of research in various ways. KSU will emphasise digital dissemination through a website providing access to knowledge reviews and mappings and will invest in other forms of dissemination, including webinars and podcasts.

⇒ **Strengthening Training in Systematic Knowledge Reviews**

KSU will develop and offer various forms of guidance and training in conducting systematic reviews. This will include:

- MA and PhD courses that can be part of national/international researcher training.
- Online training and workshops for students, employees in the higher education sector, and other interested parties to promote access to research and understanding of research literature. KSU will establish and operate a Nordic journal for knowledge reviews.

⇒ **Strategic Organization and a Collaborative Work Environment**

To achieve the strategic goals, we depend on recruiting skilled employees. KSU aims to grow in the number of employees during the first five-year period, and training efforts through MA and PhD courses will increase the recruitment base. The goal is for KSU to develop organisationally to keep pace with and promote the centre's growth. Employees at KSU will be provided with ample opportunities for professional development.

Appendix 2. Evaluation Panel Members

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Appendix 3. Interviews and informants

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