

# External evaluation of Skogforsk Framework Programme 2021-2024

## Summary and Conclusions

This external evaluation of the Skogforsk framework programme 2021-2024 is part of an agreement between Formas and Skogforsk. The appointed expert panel were asked to evaluate goal completion of the programme as well as the quality and relevance of Skogforsk's activities.

Based on the Skogforsk's documentation, its self-assessment and interviews of the stakeholder representatives and Skogforsk management and personnel the evaluation panel has made the following general observations and recommendations for Skogforsk's future research:

1. Skogforsk has a well-established position in the Swedish forestry and its role in applied research for the good of its forest sector is very well recognised. It has met most of its set objectives for the period 2021-2024. The quality of the work has been good and relevant.
2. Communication and interaction with the forest sector is a strength of Skogforsk. It is actively creating a variety of communication platforms for science and practice dialogue.
3. Skogforsk could take a higher profile in developing policy and impact analyses to provide a knowledge basis for EU and national level decision making with perspectives from the forest sector in Nordic countries.
4. Skogforsk could be more active in influencing the national research agenda and providing knowledge basis for policy making. This effort could be strengthened further with international research collaborations and focus to support Skogforsk's strategic objectives and impact.
5. Skogforsk has been recruiting an increasing share of its employees with an educational background outside the traditional forest sciences, which is important in view of the research tasks. Further social science and economics expertise will also be needed. However, the balance of personnel having deep, but narrow specialisation versus a broader understanding of forestry and the forest sector should be carefully analysed in the strategy process, and when securing the relevant competences for the future.
6. Early career researchers are the future of Skogforsk. They are now a relatively heterogeneous group scattered in the organisation with relatively few occasions to exchange ideas with peers and more experienced employees. We recommend integrating them more in Skogforsk's strategic work.
7. Skogforsk should consider becoming more active in EU funded research even though the lead partner role should be taken only in truly strategically important topics. Also WP level leadership offers a way to get insight into European forest research, forest-related policy making and in strengthening international research networks.
8. Revisit the formulation of strategic research areas for the next strategy period in view of current, and partly new, societal challenges including risk and security. There are several future research areas where novel methods and business models, AI and genetic engineering can contribute considerably to keep Skogforsk's research in the forefront, such as nurseries, silvicultural practices, forest planning etc.

## Introduction

This external evaluation of the Skogforsk framework programme 2021-2024 is part of an agreement between Formas and Skogforsk. An external evaluation team has been appointed consisting of:

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The purpose of the external evaluation is to assess:

- 1) the extent to which Skogforsk has met its set objectives for the period 2021-2024,
- 2) the quality of the work and
- 3) the relevance of the work.

The external evaluation team should also make recommendations for the future.

In 2020, Skogforsk set up five operational overall objectives for this period:

- Skogforsk will deliver innovations and knowledge that create value in the forestry sector
- Skogforsk will work efficiently
- Skogforsk will be a competent and attractive partner
- Skogforsk will be competitive by receiving external funding in the form of research grants and commissions for utilisation
- Skogforsk will develop sustainable forestry and run a sustainable operation

The five objectives have then been translated into operational targets/indicators and are followed up in Skogforsk's annual reports. We have used these five objectives to structure our assessments and recommendations in this report.

Our evaluation is based on documentation from Skogforsk, including the 2021-2024 strategy, a self-evaluation conducted by Skogforsk in early 2024 with 4 appendices, Skogforsk's annual reports 2021 and 2022, the goal score card for 2023 and other information provided on Skogforsk website. It should be noted that since we are now in the beginning of 2024, this year's accomplishments have not been included in our assessment.

In addition, we conducted four 1-2 hours hearings of which three onsite at Skogforsk and one on Teams. Four group interviews were made with four persons each from Skogforsk leadership, a senior and a junior staff group respectively, and representatives from the two advisory groups. Questions from the evaluation team were prepared and communicated beforehand. Additional questions have been put to and answered by the leadership group along the way to clarify the picture. We are greatly appreciative of these groups' support to the external evaluation, since many issues were then covered that could not be understood and assessed otherwise.

## Challenges and Opportunities

The 2021-2024 strategy discussed the global challenges ahead and the role of forest in the circular economy. It mentioned trends of stronger currents towards nationalism and protectionism, increased digitalisation and automation, the potential of forests in view of climate change and environmental targets, meeting the global sustainable development goals, and the need for forests to provide sustainable growth of more biomass and develop value-generating supply chains that enable competitive utilisation of the entire biomass potential. It also stated that efficiency must go hand in hand with consideration for the environment and people in forest management, and that

Skogforsk would form an effective bridge between academia and practice, combining in-depth specialist knowledge with a holistic view of the role of the forest.

Since early 2021, when the above was written, these challenges (and opportunities) still remain, but new ones have been added. The world has become more insecure and unpredictable. The Covid crisis reminded us of how vulnerable our economy is to sudden threats. The war in Ukraine now greatly impacts on the security situation within Europe, but also globally. As a result, forest value-chains have become less secure, but due to its large domestic inputs such as raw materials its role for example in energy production is increasing. The supply of energy has become a dilemma, with volatile costs for electricity and accompanying difficulties in foreseeing energy markets.

Power and trade relations between China, the US and Russia have changed dramatically and Sweden is to become member of NATO. Democratic backsliding world-wide and rapidly growing fact-resistance has led to increased polarisation between societal groups. This in turn implies conflicting understandings also within the forest sector and its relations with society, some of which concern fundamental views on norms, rights and responsibilities as well as on what scientific evidence becomes relevant and trusted. Trust-building and sharing of knowledge between the forest sector and society at large becomes even more important to create common understanding of major challenges and opportunities to forests and their use. This is where Skogforsk can play an important role as it is in a unique position with its forest research expertise and multiple public as well as private funding sources, along with its well-established forest networks.

At the same time, the EU has adopted the Green Deal, with new regulations introduced for forests and forest utilisation according to the new EU strategy for 2030. This entails, for instance, further sustainability demands for multiple-use forestry with reporting requirements for carbon uptake according to LULUCF, ensuring forest restoration and reinforcing forest management for climate adaptation and resilience. The planned introduction of ETS 2 'cap and trade' system in 2027 by which CO<sub>2</sub> emissions will be covered upstream will likely also affect the forest sector, as will new systems for sustainability accounting. Studying the consequences of these (and other) regulations, developing new business models and providing knowledge support to forest actors in innovative forest management will be a major task ahead. Many of the EU's DGs have policy frameworks and actions that influence the forest sector, a majority of which come from DG CLIMA and DG ENVI. The overall policy analysis and impact assessment of regulations on the Swedish forest sector could become an essential part of Skogforsk's activities.

Furthermore, the rapid development of AI and digitalisation will have implications on forest operations as well as on the forest work force. New competencies will be required. A problem that has become more salient over time concerns the recruitment of forest workers, which in turn puts pressure on making forest work more appealing particularly to young generations and immigrants to fill the void and/or to increase mechanisation especially in the silvicultural work.

Considering the increasing risks and unpredictability of what comes ahead, Skogforsk's research must be reflexive and responsive, and at the same time pursue high quality while securing broad relevance. This implies that the organisation of research must stay attentive to new demands from forest actors as well as from society at large. Building of competence within Skogforsk as well as strengthening research partnerships with complementary expertise both at Swedish universities and internationally will be essential to meet these needs. Skogforsk's already ongoing partnerships within major actors in the forest sector provides a starting point, which should however become widened to better include the varying goals and needs of individual forest owners as well as from relevant

societal actors when formulating the future research agenda and projects.

## Leading Sustainable Development

The strategy sets out five overarching operational objectives (A-E), with associated performance indicators that are continually monitored. We will assess the extent to which each of these objectives have been met, discuss potential challenges and end with recommendations for each of them.

### A. Skogforsk will deliver innovations and knowledge that create value in the forestry sector

Skogforsk's strategic research and innovation (R&I) areas for this framework period include:

1. Conduct forest tree breeding for future climate and forest use
2. Silviculture for different objectives
3. Efficient and environmentally friendly operational systems
4. Improved value chains in a circular bioeconomy
5. Opportunities afforded by digitalisation
6. Societal benefits of forest

There is an explicit focus on application of the research, and on creating synthesis and knowledge compilations, in addition to scientific publishing (with peer-review). Some of the research is based on long-term trials, and on access to many data bases, which constitutes an important strength in research on forest management and utilisation. For each of these strategic R&I areas more specific objectives were identified in the 2021-2024 Strategy to guide the development of the research. We gather from our interviews that the objectives have been kept in mind when searching for external funding as well as when keeping on track with internally designed research projects. At the same time, flexibility to respond to upcoming issues outside of the R&I areas, and across them, has been present. The last two R&I areas represent such crosscutting research, which seems to have worked reasonably well.

Some of the strategic objectives have been operationalised by target goals, such as for research outputs. We find that Skogforsk's research largely meets its set annual targets for the period 2021-2023:

- 45 scientific publications (fulfilled, 37 in 2021, 46 in 2022 and 46 in 2023)
- 4 syntheses/knowledge compilations (fulfilled except 2023 with 3)
- 100 (popular science) articles published on the website (fulfilled except for 87 in 2021 and 74 in 2023) with a stable attraction of about 400.000 visitors

These achievements are applaudable. Still, considering the growth of the scientific personnel during the period from 80 to 87, of whom 46 and 53 respectively with a PhD (or licentiate) degree, the set targets for scientific publications can be regarded as rather low. We advise that they be adjusted upwards for the next strategy period, preferably calculated as a ratio against number of scientific staff to better reflect research productivity. In addition, we advise to add the bibliometric indicators of number of citations to reflect the scientific impact of the research. Even though Skogforsk must continue to maintain a healthy balance between scientific versus more popular science publishing, using peer-review publishing in well-reputed journals is key to maintaining a good scientific reputation and building trust and respect well beyond the forest sector.

The stated ambition to contribute to spreading wider knowledge about topical forest policy and management issues through research syntheses, knowledge assessments and policy briefs is encouraged and should be further strengthened. With the current fast-moving political and socio-economic conditions for forestry, such knowledge will be essential both to forest actors, politicians and society at large. We see an opportunity to include research output productivity, including activity in fund-raising, as encouragement in salary negotiations.

The internal system for research quality control relies heavily on the R&I programme leaders, who delegate reading and commenting to internal peers depending on the topic, while the Research Director has the last say. Even if this system appears to be well-working, it is a rather centralised solution. We recommend making the quality control system somewhat more inclusive of different staff, particularly with the aim to involve younger staff as part of widening their competence and for career development. We also encourage taking up the regular seminars (such as “torsdagstugg”) to foster communication and review in-house before publishing, including workshops and seminars on research methodologies, ethics, co-production of knowledge etc. as part of developing staff competences. We also see opportunities for more exchange visits with international/national research environments as part of the research quality and competence building (See section C).

As for the relevance of the six R&I areas, we are not able to discuss them all in detail. However, we find that continuing the tree breeding programme with regard to changing climate conditions is essential. The already established collaboration in genomics and gene editing with UPSC is excellent to support further developments and applications in forestry. Also, research to support technology development in forest management will become needed not least in view of current problems in recruiting forest workers. New CO<sub>2</sub> reporting requirements (ETS 2) in forest operations and transport will require goal setting, calculation methods and follow-up mechanisms.

It is recognized that the very important tree breeding section operates independently from other sections of research due to its seed orchards’ production-for-practice. The tree breeding activity could benefit from better utilisation of enabling technologies supporting other fields of research such as digitalisation. We further note that Skogforsk’s traditional expertise on forest tree breeding, silviculture and forest operations still dominate the research budget allocations, while the more novel R&I areas have less resources despite their growing topical salience.

Still, this does not mean that the more traditional research strengths in Skogforsk should be diminished, since there are ample opportunities for new initiatives given the many societal challenges ahead. However, even if the present R&I areas remain highly relevant for further research, their administrative division as well as their headings should be revisited as there are many overlapping research topics to be addressed that require smooth administration (in addition to the two crosscutting areas of digitalisation and multiple use).

We suggest that the future R&I areas should more explicitly reflect the current societal challenges, for instance, climate change, resilience and risk management, as well as address the need for EU and national policy ex-ante and ex-post analyses including their various implications on the entire forest sector, and opportunities with mechanised plantation, AI and genetic engineering.

We also propose that Skogforsk should consider recruiting some social scientists and economists to be able to address these (partly new) research issues. An alternative solution would be to collaborate on a regular basis with external experts, but inhouse expertise with methodological insights into policy science and economics will still be needed, and national and international networking encouraged. At present, the staff expertise is dominated by forest science and technology, which is indeed crucial in view of the current research portfolio, but the cadre of social scientists is deemed

insufficient to meet forthcoming demands. It should be noted, however, that recruitment of new staff will need to also secure their high relevance to the forest sector. Further in-house training should therefore be continued.

Recommendations:

- Research targets should be revisited for the next period to raise ambitions for scientific publishing, syntheses and policy briefs, as well as relate more directly to number of research staff.
- Revisit the formulation of strategic research areas for the next strategy period in view of current, and partly new, societal challenges of recruitment, risk and security as well as AI and genetic engineering.
- Add research tasks to meet demands for climate adaptation in tree breeding with novel methods, and reduced climate impact in forest management operations and transport solutions.
- Research to support technology improvement in forest management will become needed in view of current problems in recruiting forest workers.
- Consider opening up the research quality control system to include younger staff for competence building.
- Further recruitment of social science and economics expertise and/or cooperation with external expertise is needed to meet growing requests for research on political and socio-economic as well as climate developments that impact the forest sector, and to develop ex-ante and ex-post policy assessments.
- Ensure that forest science competences and knowledge about the forest sector is maintained among the staff.
- Programmes could be better utilised to produce vision and synthesis papers and expertise to underpin national and EU policy making related with the forest sector.

## B. Skogforsk will work efficiently

Skogforsk is organised as a matrix organisation to implement its strategy. This means that research projects are placed in four R&I programmes and two enabling processes, each led by a programme manager (i.e. the four first R&I areas mentioned above, while the last two are crosscutting areas).

Programmes operate relatively independently within their budgetary framework and goal setting. The goals or thematic areas of programmes are set in close cooperation with the Research Director. Initialization of the programmes is done in close interaction with the customers and stakeholders of Skogforsk to ensure the relevance of the programme.

Based on the evaluation material and discussions the following observations were made:

- Ongoing research programmes respond to the strategic orientation of Skogforsk and there are also several cross-cutting topics that link the programmes activities together.

- The role of line organisation in personnel management and programme organisation in project management, however, creates some confusion amongst researchers especially with cross-cutting R&I areas where some staff are focusing almost all their research and where their R&I leader responsible for staff development is in another R&I area.

- Our interviews raised a need to develop the involvement and understanding from young researchers in the strategic work.

- PhD students have various roles in the projects and many of them have external expert status. A group of early career researches could be established to improve communication and sense of community. Efforts could also be made to harmonise PhD students' opportunities for personal development.

- Early career researchers with expertise in areas where there are few peers in-house would be helped by adding a supportive external mentor with relevant knowledge. Using external peers for quality development of such research activities is recommended.

- Programmes support the communication of research results and enable the management of strategic centres of gravity of Skogforsk's thematic areas.

#### Recommendations:

- Review and explain the organisational setup, especially when it comes to responsibility for personnel. Mediate information gaps between the R&I leaders especially in relation to staff development talks.
- Establish a group of early career researchers to support internal communications and sense of community and involve them as appropriate in Skogforsk's strategic work.

### C. Skogforsk will be a competent and attractive partner

Skogforsk is a well-functioning research institute delivering high quality research and support to implementation to the forest sector. Both the representatives in the Advisory Groups and the management describe a good dialogue between the Advisory Groups and the management.

Skogforsk has a large number of cooperation projects with other research organisations and companies. This includes everything from research projects together with other research organisations, contribution with data and operational knowledge to more practical implementation projects. Dialogues with partners are important to create relevance, trust and legitimacy of the research. Skogforsk has created and followed a skills supply plan.

To continue to be a competent and attractive partner Skogforsk needs to increase the funding from the framework programme, since its value has decreased substantively due to inflation.

#### *Follow up of 2023 targets:*

- "At least 80% of customers should consider themselves to benefit greatly from Skogforsk's results in their everyday lives."

The evaluation shows that 84% of customers consider themselves to have benefitted.

- "90% of customers consider Skogforsk to be credible, responsive and inspiring".

The evaluation shows that 90% believe that this is the case.

- "At least 20 results per year must be applied in forestry".  
More than 20 results are available.
- "At least 6 company dialogues will be conducted for increased customer benefit and strengthened collaborations".  
6 dialogues have been completed in 2023.

*The strategy also mentions:*

- "Further strengthen Skogforsk's role in linking scientific, needs-driven research with application in practical forestry."

Our interviews show that Skogforsk plays a very important role in linking the scientific, needs-driven research with applications in practical forestry.

- "Increase participation in application-based projects through commissioned activities, particularly together with partner companies. Demonstrate benefits and facilitate implementation of results by developing software."

Skogforsk's participation in the application-based projects has been well described and the importance pointed out in the self-evaluation as well as our interviews. It was mentioned that the partner companies sometimes were lacking capacity on the receiver side, especially when it comes to IT technical/applications. We suggest this problem to be remediated by adding such external expertise as advisor(s).

Skogforsk participates in Mistra Digital forest – an applied research programme 4+4 years, with a total budget of 103 mSEK. Such research collaborations are highly encouraged.

- "Organise different collaboration groups for sector-based development on important issues."

Currently there are three different types of groups: Two advisory groups, Collaborations groups (which we suggest are better described as expert groups) and Project groups (connected to specific research projects).

The role of the advisory groups is on strategic level. Our interviews suggest that the work of the advisory groups should be reformed. Their topical focus should be reconsidered in view of the forthcoming societal challenges and new opportunities, and their functioning needs to be further discussed. Would there be enough with one group, or should there be more groups? Can the advisory function become more inclusive of expertise relating to future challenges/opportunities in the forest sector? We found that most informants believed that new competences would be needed to support the strategic development.

The "expert" collaboration- and project groups were mentioned several times as very important links to the partner companies both when it comes to new research ideas, but also when it comes to implementation. This seems to work very well. New such expertise will however be needed for input to Skogforsk's future research activities.

Quite a lot of the financing from the framework programme comes from private individual forest owners. Today these forest owners are represented by representatives from forest owners' associations.

- "Take an active role in training and skills development to strengthen the attractiveness of the



sector.”

A recommendation in the strategy is that about 7 % of the framework programme will be directed to competence development. We were not able to assess whether this has been achieved but acknowledge some reported activities to this end. However, our interviews revealed a lack of exchange programmes for researchers, which would help both in strengthening research networks and competence development.

#### Recommendations:

- We encourage Skogforsk to strengthen research exchanges nationally and internationally in both directions, and to allocate resources for such exchange activities.
- Review the composition and functioning of the strategic Advisory Groups and consider adding further expertise for strengthening of research relevance in the “expert” collaboration groups.
- Consider ways in which individual forest owners could take further part in some of Skogforsk’s strategizing in order to expand the input of knowledge from different types of forest owners.

#### D. Skogforsk will be competitive by receiving external funding in the form of research grants and commissions for utilisation

Skogforsk is financed from the Framework programme with about 30 % from Formas and 30 % from the forest sector. The remainder comes from external funding through contract revenue and research grants in competition with universities and other research institutes.

In addition to basic funding from the forest sector and Formas, external funding has been sought – and successfully added - from both public and private sources, with an increased amount from 2021 to 2023 of around 20 %. The many efforts to apply for funding together with various research partners appear to have paid off, especially within the newer crosscutting R&I areas, while the more traditional R&I areas seem to be relatively more dependent on core funding. For instance, more than a handful new research collaborations have been successfully implemented with external funding, some of which concern PhD education, which is commended to build expertise for the future. Many of the most innovative externally funded projects are clearly responding to future needs and well founded in transdisciplinary research teams with many external collaborators both nationally and internationally. This development is excellent and should be kept proactive. A challenge concerns the need for securing research funding (and qualified staff) for long-time experiments and follow-up of different forest management practices, such as upgrading nurseries’ techniques and genetic improvements of seedlings.

The intention of the existing strategy is to increase the operations through external funding, which has been reached. The external funding has increased from 69,8 m SEK 2020 to 82,8 m SEK 2022. Since January 2021 to today 51 new persons have been employed. At the same time 39 persons have left Skogforsk due to retirement and change of employer.

We gather from our interviews that Skogforsk has refrained from EU funding due to too heavy administration. We note that Luke has prioritised applying and participating in EU research and created a special EU administration support team, relieving some administration work from the researchers. This is made possible by a larger organisation in Luke. Still, Skogforsk should consider

how its researchers could be better supported in raising and administering EU funding since this would be beneficial to Skogforsk's research portfolio and strengthen its international impact.

#### Recommendations:

- Continue to increase the external funding. Develop a process to handle the administration of the EU projects, and when having that in place, target to increase the use of EU funding.
- Continue to expand international research networking and establish more collaborations especially with Finland and European research partners.
- Strengthen its presence and increase project portfolio in EU's framework programme through project partnerships. Although coordination of a Horizon Europe consortium is a heavy task for Skogforsk, it could take a stronger role as a key partner in many consortia bringing "reality check" and forest sector practitioners' perspectives to EU projects.
- Mobilise further efforts to attract external funding from national research calls and support transdisciplinary collaborations to this end.
- Increase the framework programme by increasing the 60-öring to meet the inflation and increase the contribution from Formas to the same level.

#### E. Skogforsk will develop sustainable forestry and run a sustainable operation

This objective is twofold: Firstly, Skogforsk sets out to contribute to sustainable forestry in its research and communication activities, and secondly, the internal running of the institute should be sustainable. We strongly support the notion that bringing research to practice is fundamental to Skogforsk. It distinguishes Skogforsk from academic research in general (even if an increasing share of EU and national research funding emphasises bridging science to practice as well). The evaluation team appreciates that Skogforsk is in a unique position to realize this mandate with its well-established networks of forestry practitioners.

Evaluating the extent to which Skogforsk's externally orientated activities contribute to sustainable forestry is however a delicate task. It presupposes that there is common understanding of the concept, that the outcomes are measurable, and that empirical evidence exists that directly connects external forestry operations with Skogforsk's knowledge. There are interpretative and methodological problems in all those respects. Still, according to our hearings this objective provides guidance to which direction Skogforsk should take and motivates an ongoing discussion about what it implies, which is applauded.

In practice, empirical evidence for Skogforsk's contribution to sustainable forestry lies in the achievement of the score card goal that at least 20 research results annually have come to use (see appendix 3 in the self-evaluation for examples thereof), in the annual reports 2021 and 2022 and multiple examples on the website. Without going into detail, we find that those examples illustrate impacts on both economic and ecological dimensions of sustainable forestry practices, albeit with the most emphasis on the economic issues (efficiency and effectiveness), while contributions to social aspects of sustainable practices are less prevalent.

Our impression from this narrative, particularly in the annual reports, is also that the integration of ecological aspects could be better considered within activities that target economic efficiency - and

vice versa - as the examples appear to concern either economic or ecological sustainability rather than both simultaneously. Having said that, the two strategic R&I areas “silviculture for different objectives” and “societal benefits of forests” are excellent exceptions that warrant wider inspiration within Skogforsk’s activities. Furthermore, inhouse consultations with Skogforsk’s interest groups about the 17 Global Sustainability Goals have identified direct, or indirect, contributions from Skogforsk’s activities to 13 of those goals. Given the future challenges that were discussed earlier in this report, Skogforsk’s contributions to sustainable forestry in the next period should intensify the sustainability aspects concerning risk management, improved forest resilience, novel sustainable business models and value-chains, climate and sustainability goal setting and reporting, and readiness for a potential war situation.

As for the internal sustainability work, there are several ongoing initiatives that guide Skogforsk’s operations. The Code of Conduct “We At Skogforsk” specifies the preferred ways of working, and is deemed alive and regularly discussed within the internal work. However, it appears not yet fully implemented among Skogforsk’s external partners, which constitutes a risk since their behaviour in research collaborations can spill over on Skogforsk’s reputation as well. Skogforsk’s internal Sustainability Advisory Group supports the internal sustainability reporting according to GRI (Global Reporting Initiative) standards, and efforts are underway to adopt the new CSRD (Corporate Sustainability Reporting Directive) standards.

Moreover, intensified awareness raising with concern to gender equality and diversity throughout Skogforsk’s organisation and activities is needed, both with respect to social aspects of sustainability and to the fact that the gender ratio both internally, and in the forest sector at large remains unequal. This applies for instance to considering who are speakers in conferences and seminars, but also to the design of research activities such as those concerning forest work, value-chains, and other gender implications of forest practices. Skogforsk takes part in the forest sector’s Equality Council, coordinated by the Swedish Forestry Agency since 2022, and specifically in its group for An Equal Work Life, which constitutes an excellent platform for furthering such research initiatives and supporting practical implementation.

#### Recommendations:

- Good examples of impact are shown particularly in respect to economic and environmental aspects of sustainability, while the social aspects are less pronounced and should therefore be further considered. Efforts should be made to think more holistically about the relevance and potential of different dimensions of sustainability in the design of research activities.
- The Code of Conduct should continue to permeate Skogforsk’s internal activities but could also be better communicated and applied with external collaborators.
- Even if Skogforsk is not legally required to introduce the new CSRD (Corporate Sustainability Reporting Directive) standards, we recommend these to be tested not least to be able to support knowledge transfer to/between forest companies.
- Gender equality and diversity should remain highly prioritised in Skogforsk’s activities both internally and as an integral part of the research.

## Communication

Strategic objectives for the framework period include:

- Through efficient and proactive communication, enable forestry and society to quickly access and implement Skogforsk's expertise, services, and products;
- Facilitate dialogue between forestry and wider society on forest-related issues;
- Skogforsk will be, and will be perceived as, a credible and useful source of knowledge.

The statistics concerning communication activities 2021-2023 show that:

- visits on the two websites amount to almost 400.000 annually
- social media has been introduced in 2023 with Facebook, LinkedIn, X and Twitter
- the number of IRL participants in conferences have diminished from 2021 to 2023
- Youtube followers have remained constant around 4000
- printed popular science materials have also remained around 40 annually
- web seminars and courses were given in 2021 and 2022 but none in 2023
- a peak of instruction films were produced in 2022
- Skogforsk has been frequently mentioned in the press, but this has decreased in 2023

This shows quite intense communication activity, using a variety of different media, which is commended. We find it positive that Skogforsk during this strategy period has approached the Swedish Parliament by having seminars for parliament members about forestry.

Skogforsk has a long and both nationally and internationally recognized track record in successful and efficient communication and interaction with its interest groups. The communication means include research and development reports, textbooks where Skogforsk's personnel has contributed or even been the lead author, creative use of web-based solutions with news feed on topical issues and a wide variety of live and Teams events. In addition, maintaining of the publication databases extends the impact of communication further. Communication within the sector is a key strength of Skogforsk. In addition Skogforsk has been successfully facilitating the dialogue between forestry and wider society and it is considered as a trusted source of information and knowledge.

### Recommendations:

- Skogforsk could further strengthen its impact by creating wider synthesis report on topical issues concerning e.g. impacts of changing geopolitical environment on the forest sector or, more specifically on wood sourcing for various value chains.
- Support political decision makers with ex-ante and ex-post impact analyses of EU policy developments also including economic evaluation of forest-based sector activities.
- Join with international partners to communicate and bring forward Nordic forest-sector perspectives to EU's decision-making processes.
- Continue to develop Policy Briefs and support Parliament members with knowledge about forestry topics.