

## Report for SNS Wood Science and Engineering Networks

Submit the report to [sns@slu.se](mailto:sns@slu.se) by 24:00 CET, 1<sup>st</sup> of March, 2019, at the latest.  
The report should not exceed 1500 words (including words in the template).

Please adjust the box size according to the length of your answer.

1. Network title:	Wood interior: Health impact and indoor air using wood interior
2. Network number:	W2018-4

3. Network coordinator:	Ove Munthe-Kaas
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### Activities during the reporting year:

4. Place of the activity:	Norway and Sweden
Duration of the activity (start date, end date):	Sept 2017 to Dec 2018

5. Provide a short network summary, including:
<ul style="list-style-type: none"> <li>a) A background to the network</li> <li>b) The main activities of the network</li> </ul>
<p>a) The Wood Associations in Norway, Finland and Sweden appointed, April 18<sup>th</sup> 2017, four main common focus areas. One of the focus areas was "Wooden interior products: Health impact and indoor air".</p> <p>The overall goal and background for the network is to increase the interior use of wood. To achieve this, it is important to create documentation and information regarding use of wooden interior products on health and indoor climate through research work, and to spread the information through appropriate channels.</p> <p>The network aims to collect a consortium of excellence to write for an EU-proposal within the ForestValue-Net. Another goal of the network is to coordinate the dissemination to end-users, entrepreneurs, architects and private and public building owners in the Nordic countries.</p> <p>b) One of the main activities of the network was to hold a conference on the topic Wood and Health in Oslo the 28<sup>th</sup> of November with the main purpose to inform about the use of "Wooden interior products: Health impact and indoor air". The network also had an open work shop at the Norwegian University of Life Sciences where the speakers from the conference and young researchers attended.</p> <p>The network also sent a researcher application to Forest Value Net. The Application was named KISS and was aimed on the topic's energy consumption, indoor air quality, health, comfort and wellbeing when using wood in the indoor environment. Other applications were also evaluated.</p>

6. List the outputs of the network (peer-reviewed articles, other publications, websites, policy recommendations, conferences, scientific meetings, large-scale project applications, research training etc.)

Activities	When	Where	Who
Skype meeting 1	Sept. 2017	Skype	Consortium
Skype meeting 2	Oct. 2017	Skype	Consortium
Physical meeting 1	Nov. 2017	Arlanda	Nordic Wood associations
Joint Call for proposals Forest-Value Net	Dec. 2017		Research network
Skype meeting 3	Jan. 2018	Skype	Research network
Pre-proposal to Forest-Value Net	Beginning of 2018		Research network
Sent Application to Forest Value Net	Summer 2018		Research network
Skype meeting 4	Sept. 2018	Skype	Research network
Wood and Health conference	Nov. 2018	Oslo at Christiania Qvartalet	Research network
Work shop	Nov. 2018	Ås at Norwegian University of life Sciences	Research network

7. How and within which areas was the network beneficial for the Nordic countries?

The network has been particularly useful for the Nordic countries creating a common understanding of the state of the art within the focus area "Wooden interior products: Health impact and indoor air". The network has also been useful for creating contacts and cooperation with other researchers in Europe. An example of this is that InnoRenew, who participated during the conference and work shop, has agreed to hold a similar conference in Slovenia in 2020. In this way, the Nordic network is now part of the European research within the topic "Wooden interior products: Health impact and indoor air".

8. Provide a short popular science piece of the project (maximum 500 characters) for publication by SNS in various channels

There is a great interest among the population about health effects and the use of wood in the indoor environment.

Focus on a good indoor environment is becoming increasingly important. There was a great deal of support when the Nordic network "Wood interior: Health impact and indoor air using wood interior". organized a conference in Oslo in 2018 on the topic.

People have been exposed to forests and wood materials for as long as we have existed, and there are things indicating that wood differentiate substances that positively affect us and our health.

- We notice that the focus on indoor environment is increasing. This is an area where much is currently happening and the need for knowledge is great, says Hilde Tellesbø from The Norwegian Institute of Wood Technology.

Those who participated in the conference heard among other things that studies indicate faster recovery and less experienced pain if the patient rooms in hospitals have elements of wood. It has also

been researched on how the use of wood affects stress. Mike Burnard from InnoRenew in Slovenia shows in his work how the stress level (cortisol) is reduced faster in rooms with wooden interiors. In Norway, 8-9 billion will be invested in the next few years in hospital buildings, told Liv Haugen from Sykehusbygg. If the use of wood can lead to improved recovery among the patients, it will of course be appropriate to use wood in the patient rooms. However, more research and documentation are requested in the area. There are strict requirements for materials used in hospital buildings, among other things in relation to cleaning and disinfection. This will probably require some form of wood treatment, so how can we surface treat wooden materials without reducing the unique properties too much? Ulrich Hundhausen from Tretknisk told about the possibilities that exist today for surface treatments and the expected effect of these.

Wood and indoor environment is an important R&D area for the timber industry going forward. Both to bring out the necessary knowledge and to develop new solutions that promote the good health effects of using wood.

- It will be exciting to see the further development of the work in this area. It is clear that the need for more research in this topic is crucial so the use of wood can be increased, says Ove Munthe-Kaas from Tretknisk. As an attempt to respond to the demand and needed knowledge, The Nordic network applied to Forest Value Net. The application was named KISS and was aimed on the topic's energy consumption, indoor air quality, health, comfort and wellbeing when using wood in the indoor environment. The application did not go through, but the consortium in the network is looking for the possibilities of a new application.

Health and environment during the construction period were also on the agenda during the conference. NTNU and Veidekke investigate, among other things, how the workers experience noise, dust and cleaning on construction sites with different building materials. Preliminary results from the project Lilleby in Trondheim were presented during the conference.

The lectures from the seminar are posted on [www.Tretknisk.no](http://www.Tretknisk.no).

## Participation

### 9. Number of participants

Country	Young researchers / PhD students	Senior researchers	Stakeholders	Others (specify)	Gender			Total
					Women	Men	Other	
Finland	0	1	1	0	0	2	0	2
Norway	1	3	0	0	1	3	0	4
Sweden	0	1	1	0	1	1	0	2
...								
...								
...								
...								
...								
...								
Total	1	5	2	0	3	5	0	8

**Economic report**

10. Received grant from SNS (SEK):
120 000,-

## 11. Transfer of SNS funds to network partners

Country	Partner organization	Sum (SEK)
Denmark		
Finland		
Sweden		
Norway	Norwegian Institute of Wood Technology	120 000,-
Iceland		
Other countries (specify)		
<b>Total SUM</b>		<b>120 000,-</b>

## 12. Costs

	SNS funding	External funds	Total
Travel and hotel			
Meeting costs	120 000,-	229 900,-	349 900,-
Salary	Not allowed		
Communication			
Other costs (specify)			
<b>Total SUM (SEK)</b>	<b>120 000,-</b>	<b>229 900,-</b>	<b>349 900,-</b>

## Optional: Comments to the economic overview:

All the costs related to this network is for the Wood and Health conference in Oslo at the 28<sup>th</sup> of November 2018, and the Work shop held at the Norwegian University of life Sciences in Ås the 29<sup>th</sup> of November 2019.

I hereby declare that the above statements are true to the best of my knowledge

Main applicant's signature, place and date



Ove Munthe-Kaas

(Norwegian Institute of Wood technology)

(29 / 03 / 2019)

Signature of the head of the main applicant's research institution



(Signature)

(Norwegian Institute of Wood technology)

(29 / 03 / 2019)

Terje Fagervoll Administration chef  
(Printed name, function)

Second applicant's signature, place and date



Björn Källander

(Signature)

Svenskt trä / Arbio

(Institution)

(29/03/2019)

Third applicant's signature, place and date

*Anders Q Njord*

**Norges miljø- og biovitenskapelige universitet**

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.....  
(Signature)

.....  
(Institution)

(29 / 03 / 2019)