

Report for annual networks

Submit the report to sns@slu.se by 24:00 CET, 1st of March the year after the network period.
The report should not exceed 2000 words.

Please adjust the size of the boxes to the length of your answer.

| | |
|--------------------------|----------------------------------------------|
| 1. Title of the network: | Forest related Life Cycle Assessment Network |
| 2. Network code: | FORLCA |

| | |
|--------------------|-----------------------------------------|
| 3. Main applicant: | Dimitris Athanassiadis |
| Email: | dimitris.athanassiadis@slu.se |
| Institution: | Forest Biomaterials and technology, SLU |

Activities

| | |
|----------------------------------------------------|------------------------------------------------------------------------------|
| 4. Place of the activities: | ZOOM |
| Duration of the activities (start date, end date): | February 27 2020 (3 hours), April 24 2020 (3 hours), March 11 2021 (3 hours) |

| |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5. Provide a short network summary, including: |
| <p>a) The purpose of the network/main problems/background</p> <p>The aims of the network were to discuss research outcomes within the area of LCA and its development, discuss methodological aspects in LCA: Cascading use of forest biomass, impacts of system boundaries and allocation methods, forest as a carbon sink or source, LCA database development related to forest biomass supply chain, Integration of LCA with GIS for better show the spatial effects of e.g. bioenergy systems, share data among the network on processes that are difficult to find good data in the existing databases, form a research consortium that will apply for European Union projects in the new Horizon Europe program</p> <p>b) A description of the main activities of the network</p> <p>The network had 3 online meetings where the above issues were discussed</p> <p>c) Did the network develop and deliver as planned? If not, please explain why</p> <p>No. The network started at the same time as the corona pandemic and we could not have any face to face meetings, only digital. Moreover there was changes in the employment of some persons of the main applicant that were important for the network (Krishna Upadhyayula was employed at Scania, Pooja Yadav was employed at LUKE, Dimitris Athanassiadis became coordinator of the Research school SILVA).</p> |

Outcomes

6. Published outputs achieved as a consequence of the network (peer-reviewed articles, other publications)

Jacopo Bacenetti; Sara González-García. Environmental sustainability in energy production systems. Section 3. Case studies for sustainability assessment. Chapter 17. Assessing Progress toward Sustainability: Frameworks, Tools and Case Studies. Elsevier, 2022. ISBN 9780323858519. Disponible en Internet en: <https://doi.org/10.1016/B978-0-323-85851-9.00013-4>.

Ana Arias*; Sara González-García*; Sandra González-Rodríguez; Gumersindo Feijoo; María Teresa Moreira. Cradle-to-gate Life Cycle Assessment of bio-adhesives for the wood panel industry. A comparison with petrochemical alternatives. Science of the Total Environment. 783 - 140357,

Ana Arias Calvo; Sara González-García; Gumersindo Feijoo; María Teresa Moreira. Tannin-based bio-adhesives for the wood panel industry as an environmentally friendly alternative to petrochemical resins. Journal of Industrial Ecology. 1-16.

7. Other practical outputs of the network (workshops, conferences, scientific meetings, policy recommendations, conferences, large-scale project applications, websites or databases etc.)

Two BBI (<https://www.bbi-europe.eu/participate/call-proposals-2020>) proposals were prepared including members of our network that would perform the LCA part of the project. One of them was submitted. The other one was not successful in securing financing from the Industrial parties and thus was not submitted (but the proposal is written anyway)

Many of the partners commented on the Product category rules (PCR) for the basic assortments from forestry which was developed by the Swedish Institute of standards

8. How and within which areas was the network beneficial for the Nordic region (Denmark, Finland, Iceland, Norway, Sweden and the autonomous areas of the Faroe Islands, Greenland and Åland Islands)?

The network brought together researchers working on LCA and provided a platform for meeting and discussing on the development of LCA methodology with special focus on forestry issues.

Participation

9. Number of participants

| Country | PhD students & Post-docs | Other researchers | Stakeholders | Communication officers | Gender | | | Total |
|---------|--------------------------|-------------------|--------------|------------------------|--------|-----|-------|-------|
| | | | | | Women | Men | Other | |
| Denmark | | | | | | | | |
| Finland | 2 | 2 | | | 2 | 2 | | |
| Iceland | | | | | | | | |
| Norway | | 2 | | | | 2 | | |
| Sweden | 2 | 2 | | | 2 | 2 | | |
| Spain | | 2 | | | 2 | | | |
| Ireland | | 2 | | | 2 | | | |
| Latvia | | 1 | | | | 1 | | |
| Total | | | | | 8 | 7 | | |

Gender equality actions

In the beginning of the network period, you were introduced to the [gender equality guidelines](#) and asked to perform at least one action point from each step during your network period. Fill in the following evaluation scheme with the actions performed and the outcome. It is new for SNS to introduce these gender equality guidelines to our funded networks, so SNS would really appreciate your feedback on the guidelines and how they have worked for you.

| 11. Evaluation scheme | |
|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a) Outcome of completed planning step: | The requirements of SNS were fulfilled |
| b) Outcome of completed action step (at least one action point): | |
| c) How did the actions/tools work for your network: | |
| d) How could SNS provide more support to your network in the work toward gender equality: | |
| e) General feedback to the gender equality guidelines: | No physical meetings took place. In the zoom meetings the participants presented their work and participated in the discussion independently of their gender |

Economic report

| 12. Received grant from SNS (SEK): |
|------------------------------------|
| 200000 |

| 13. Costs | SNS funding | Co-financing | Total |
|---------------------------------------|-------------|--------------|--------|
| Travel and accommodation | 4036* | 0 | 4036 |
| Meeting costs** | 0 | 180000 | 180000 |
| Communication | 16000 | 0 | 16000 |
| Other costs (writing of final report) | 10000* | 0 | 10000 |
| Total SUM (SEK) | 30036 | 180000 | 210036 |

*This is a non-refundable ticket that a participant had booked for the planned physical meeting in April 2020 that was canceled due to the pandemic

** Estimation of salary costs for the scientists involved in the network and participated in the 3 meetings.

| 14. Allocation of SNS funding | | |
|-------------------------------|----------------------|------------|
| Country | Partner organization | % of total |
| Denmark | 0 | 0 |
| Finland | 0 | 0 |
| Sweden | 26000 | 13 |
| Norway | 0 | 0 |
| Iceland | 0 | 0 |
| Spain | 4036 | 2 |
| Ireland | 0 | 0 |
| Latvia | 0 | 0 |
| Total SUM | 30036 | |

| 15. Economic result (deficit or surplus) |
|------------------------------------------|
| Surplus: 169964 SEK |

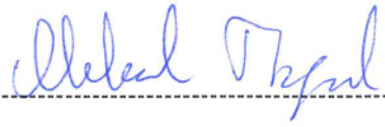
| 16. Optional: Comments to the economic reporting |
|--------------------------------------------------|
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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>17. Provide a popular science piece for dissemination in SNS' various channels (maximum 700 words) <i>with emphasis on application of results and benefits for the Nordic society.</i></p> <p>Please see separate document for instructions</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

I hereby declare that the above statements are true to the best of my knowledge
(Please adjust the number of signature boxes to the number of applicants)

| Signature of the main applicant | | |
|---------------------------------|---------------------------------------------|------------|
| <i>Dimitris Athanassiadis</i> | Swedish University of Agricultural Sciences | 16-02-2023 |
| Signature | Organization | Date |
| DIMITRIS ATHANASSIADIS | | |
| Printed name | | |

Signature of the department head at the department of the main applicant



Signature

SLU

Organization

21-02-2023

Date

Mikael Thyrén

Printed name

Second applicant's signature, place and date



Signature

NMBU

Organization

May 3, 2023

Date

ANDERS Q. NYRUD

Printed name

Third applicant's signature, place and date



Signature

Luke

Organization


27.2.2023

Date

Tarmo Rätty

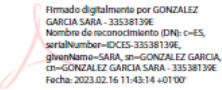
Printed name

Forth applicant's signature, place and date


 ----- -University College Dublin----- -20/2/23-----
 Signature Organization Date
 Fionnuala Murphy

 Printed name

Fifth applicant's signature, place and date

GONZALEZ
 GARCIA SARA -
 33538139E
 
 ----- -Universidade de Santiago de Compostela February 16th, 2023
 Signature Organization Date
 SARA GONZÁLEZ GARCÍA
 Printed name

Sixth applicant's signature, place and date


 ----- -University of Latvia----- ----20.02.2023-----
 Signature Organization Date
 -Janis Brizga-----
 Printed name