

Submit the report <u>before March 1<sup>st</sup></u> to: sns@slu.se
The report should <u>not exceed 1500 words</u> (including words in the template).

1. CAR title:	CARISMA - Centre of Advanced Research for the innovative use of 3D remote sensing in mapping of forest and landscape attributes based on national forest inventories
2. Reporting year:	2017

3. Project coordinator:	Johannes Breidenbach
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### Activities during the reporting year:

4. Description of the activities during the reporting year:

A workshop with the topic "Innovative 3d plot level measurements in forest inventories" with 19 presentations, a field trip and ca. 40 participants was organized from 21 to 23 August 2017 in Helsinki, Finland.

ERA-GAS funded the INVENT project which the group members applied for using CARISMA support.

The paper that was initiated by Annika Kangas at the first CARISMA/SNS lidar workshop in Ås 2016, was published: Kangas et al. 2018: Remote sensing and forest inventories in Nordic countries – roadmap for the future. Scandinavian Journal of Forest Research. <a href="https://doi.org/10.1080/02827581.2017.1416666">https://doi.org/10.1080/02827581.2017.1416666</a>

The paper was also presented at the 125 year IUFRO conference in Freiburg, Germany.

The core group had 5 telephone (Skype) group calls for the discussion of research issues and project management related to the forthcoming Workshops.

5. Activity	Place (country) for the activity	Duration (date)
Workshop "Innovative 3d plot level measurements in forest inventories"	Helsinki, Finland	21 to 23 August 2017
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- Does the project develop according to the research plan? Please elaborate:
- Does the project deviate from the research plan? Please elaborate:

The project develops according to plans. All planned workshops (one per year) were successful meeting places where new contacts and ideas were developed. The application for external funding was successful and a common paper was published.

Results during the reporting year:						
7. List the published outputs during the reporting year (peer-reviewed articles, other publications):						
Kangas et al. 2018: Remote sensing and forest inventories in Nordic countries – roadmap for the future. Scandinavian Journal of Forest Research. <a href="https://doi.org/10.1080/02827581.2017.1416666">https://doi.org/10.1080/02827581.2017.1416666</a>						
8. Other practical outputs during the reporting year (e.g. websites, policy recommendations, conferences, large-scale project applications etc.)						
See also activities 4.						
In an amendment to the yearly reporting requested by SNS, CARISMA summarized the archived results and how the network has been beneficial in a Nordic setting.						
The project homepage was updated: https://www.nibio.no/en/projects/carisma/activities						

## 9. Economic overview for the reporting year

Received grant (in 1 000) from SNS for the reporting year:	Specify currency:
350	NOK

### Costs. Please report costs without VAT.

	SNS funding	External funds	Total
Travel and hotel	168		
Meeting costs	1 2 2		
Communication		A STATE OF THE STA	
Consumables			
Salary	218	537	755
(Other costs (specify below))	11		
Total SUM	397	537	934

Transfer of SNS funds to project partners

Sum	Receiver of (partner) and reason for transfer				
305	LUKE, Finland. According to planned budget. (Organization of workshop.)				
24	SLU, Sweden. According to planned budget. (Travel funds.)				
14	University of Copenhagen. According to planned budget. (Travel funds.)				
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#### Comments to the economic overview:

NIBIO receives the full amount of funding and distributes it among the partners that independently make use of the funds. The CARISMA budget varies from year to year. As the same amount of funding is transferred each year from SNS to NIBIO, NIBIO transfers parts of the funds to the following year in order to balance the budget.

External funds that were used for salaries at CARISMA meetings and workshops are estimates. External funds used for research related to the CAR activities are not listed. Salaries paid by SNS are for managing the CAR and for preparing the planned workshops.

Currency conversion factors to NOK were 10 for EUR (Finland), 1.3 for DKK, and 1.0 for SEK.

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

Signature of the CAR coordinator, place	e and date	·
Treidensal	NIRIO	27 / Feb. / 2018
(Signature)	(Institution)	(Day / Month / Year)

Signature of head of research institution

Bifur Havand Eigen N1B10 27/2-2018

(Signature) (Institution) (Day/Month/Year)

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(Printed name, function)

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