

Abstract template for the conference “A century of national forest inventories – informing past, present and future decisions”

Dear author. This is a two-page template that in the first page will ask for information on presenter name, topic, and preferred presentation form.

On page two, you are asked to fill in your abstract in the format and font size indicated. Please remember to include authors affiliation information in the footer section of page two. The length of the abstract may not be more than one page including references.

Abstract title:		Field plots and RS technologies - a common future for NFIs?
Take-home message:		An operational system for including Remote Sensing data into the NFI estimation processes is still missing in most European countries. Therefore there is a big potential to work on common approaches before national solutions have been fixed.
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General topic, see website: <small>(please double click on the check box and activate the relevant one)</small>	<input type="checkbox"/>	Improving future NFIs by learning from the past
	<input checked="" type="checkbox"/>	NFIs today and in the future
	<input type="checkbox"/>	Cutting edge and futuristic inventory techniques and technologies
Preferred presentation form:	<input checked="" type="checkbox"/>	Oral presentation
	<input type="checkbox"/>	Poster
<i>Abstracts will be reviewed by members of our scientific committee and you will be given information on decisions in due time after the submission deadline has passed.</i>		

Field plots and RS technologies - a common future for NFIs?

Klemens Schadauer

Introduction: The European National Forest Inventory Network ENFIN has been working for 15 years on the harmonisation of the NFIs on different levels. So far, the network was successful in developing more than 100 common “reference definitions” and applied bridging functions to overcome the gap between national and international approaches. The work also included basics for the harmonisation of modelling approaches. During the last decade the use of Remote Sensing techniques within the NFIs got more and more prominent. Only first attempts to study the harmonisation potential for the combined use of field plots and RS Technologies have been undertaken until now.

Materials and methods: During the last decades combining data from field plots and RS yielded tools for pre- and post stratification which allow the reduction of the errors of estimates. Recently more and more scientific studies cover the options for model assisted and model based estimation. Some examples in different countries highlight the large variety in possible ways forward. Finally examples for the exclusive use of RS data for NFIs are demonstrated.

Results: The potential for harmonisation regarding the combined use of field and RS data is huge. It has several levels spanning from highly specialised local data collections (like TLS) to the common use of the publicly available data like from the Copernicus program. A main challenge will be a sound harmonisation process given the broad technical possibilities of the combined use. The exclusive use of RS data without any field plot data is immensely constrained, although a high level of harmonisation could be reached.

Conclusion: An operational system for including Remote Sensing data into the NFI estimation processes is still missing in most European countries. Therefore there is a big potential to work on common approaches before national solutions have been fixed.