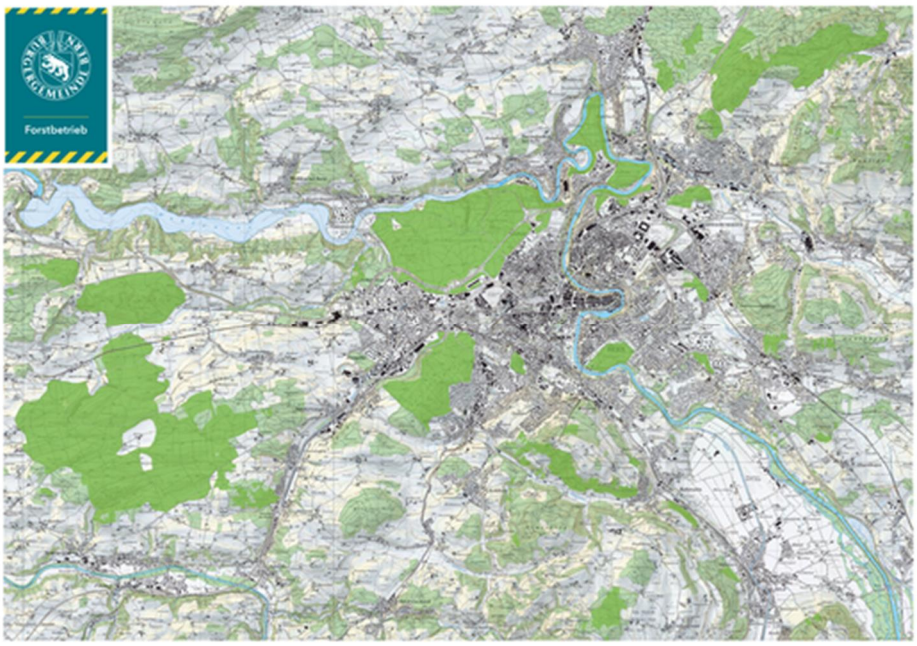
Description of best practice

Best practice	
Title	Rolling silviculture planning (annually)
Picture	
Domain	Silviculture
Source of wood	Stemwood
Location	Berne
Implementers	Forestry operation of the Burgergemeinde Bern and Bern University of Applied Sciences (School of Agricultural, Forests and Food Sciences (HAFL)
Actual status	Running
Approach	Forest management based on the latest available technical solutions and satellite data (Sentinel2 and caliper with georeferencing possibility). Determinization of rough wood according to tree-species for the entire forestry operation surface. Realtime wood stock management and silvicultural measure planning reviewed with silvicultural planning simulations. Rolling management approach on an annually basis for optimization of economic, ecological and social values. Management units of approx. 30 hectares defined to enhance efficiency of the entire process. Reduction of rotation periods according to tree-species
Main results	Efficiency enhancement in economic, ecological and social dimension.

	Increased yield and cost reduction resulting in enhanced profitability while providing stability for wood stocks. Reducing discards by adaptation to climate change and active monitoring of sustainability principles. Exploiting of new selling opportunities. Active learning possibilities through Realtime verification of work processes incl. field work (work plan -> validation -> assignment -> verification). Better integration possibilities of all actors in the field and active work support. Better communication possibilities with players of downstream markets
Lessons learned	Advanced forest management and silvicultural planning on a good wood stock analysis with proximity in time is one key factor for optimization of forest management, silvicultural measures and wood production incl. better selling possibilities. New learning process possibilities. Enhanced reaction times on requests of all sorts and in the case of extreme events (storms etc.). The approach allows the better exploitation of the growing wood potential, reducing the rotation period and thereby fostering the climate change adaptation potential. Efficiency enhancement in economic, ecological and social dimension with the aid of modern techniques is possible and will become more prominent in the future
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Link to website	https://forst.bgbern.ch
Code	BP_CH_01

Best practice assessment

Region	Berne
Time scale	2017 -
Mobilization Potential	1 – 2 m³/ha
Kind of wood concerned	Stemwood
Sustainability Potential	Very positive
Impact on environment & biodiversity	Positive on biodiversity and forest resilience enhancement
Ease of implementation	Medium
Economic impact	Enhancement of regionally added value / more efficient working processes /active learning
Job effect	Better qualified staff through verification and discussion possibilities
Income effect	Positive / more efficient working processes / cost reduction possibility identification
Specific knowledge needed	GIS data processing possibilities needed
Costs of implementation	Approx. 100’000€
Technical readiness level	Applicable
Key information for adoption	Sentinel2 datas (which are freely available)