

Short Rotation Woody Crops plantations for local supply chains and heat use

SRCplus

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SRCplus International Study Tour

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Bioenergy – a critical issue in the public!

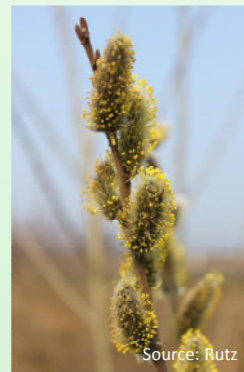


General SRCplus Idea

- Create **SYNERGIES** between bioenergy, **ecosystem services** and **nature conservation** measures
- and not conflicts!

Ecosystem services : beekeeping, water management, water supply (ground water), hunting, fire protection

Nature conservation: biodiversity, water purification, carbon content of soil, aesthetic landscape element



„Coppice“



Traditional/ old
method

New/modern
method:
Short Rotation
Coppice (SRC)

→ new growth from the stump or roots of trees if cut down

Sustainability is important!

Sustainability depends on how SRC is implemented and on which land!

- **Former land uses:** highly intensive agricultural land, marginal land, inundated areas, steep slopes, contaminated soils, as structural elements in the landscape
- **Legal definition of SRC:** in Germany, SRC is classified as agricultural crop and not as forest
- SRC shall **not be planted in existing forest areas**
- **No large-scale SRC monocultures** shall be promoted

→ **Sustainability depends on the local situations!**

Land use changes



Source: Rutz



Source: Rutz



Source: Rutz



Source: Rutz

Natural forest (riparian)



→ Willows (*Salix alba*)

Former land use

- **current agricultural land:** different types of agricultural land (ploughed land), depending on the soil quality and water availability
- **current grassland:** a distinction between intensively and extensively managed grassland needs to be done
- **current forest:** in many countries SRC shall not be grown on land that is classified as forests (both from the legal viewpoint, but also due to environmental issues).
- **marginal land:** Different definitions of “marginal land” are available. Some land that is economically classified as “marginal” has high ecological values. SRC may be well suited on steep slopes (to prevent erosion), on flood-prone areas, under power lines, etc.
- **protected land:** the cultivation of SRC on protected land depends on the protection status and goals.

Criterion	Agricultural land	Grassland	Forest
Use of pesticides	During set-up and removal phases similar to conventional agricultural land use; During the short rotation phase not needed.	During set-up and removal phases similar to conventional grassland; During the short rotation phase not needed.	Higher
Use of fertilizers	Considerably lower	Considerably lower	Higher
Soil erosion	Considerably lower	During set-up and removal phases higher than grassland; During the short rotation phase similar to grassland.	Slightly higher
Biodiversity	Usually much higher than in intensively used agricultural land; On extensively used agricultural land it can be higher or lower.	Depends on the intensity of the used grassland as well as on species composition.	Depends on the forest type and the design of the SRC; Compared to natural forests, biodiversity in SRC is rather lower.
Climate and water	Higher evaporation, higher interception, higher wind protection and temperature balancing, reduction of dust and pollutants	Higher evaporation, higher wind protection and temperature balancing	Rather negative impacts
Carbon sequestration	Considerably higher	Higher or equal; depends on management practices.	CO ₂ storage considerably lower, but annual sequestration higher

Short Rotation Woody Crops (SRC) plantations for local supply chains and heat use

Project No: IEE/13/574



***Sustainability criteria
and recommendations
for short rotation woody crops***

WP 2-D 2.3

November 2014



Details under:
<http://www.srcplus.eu/en/publications.html>

Agro-forestry systems

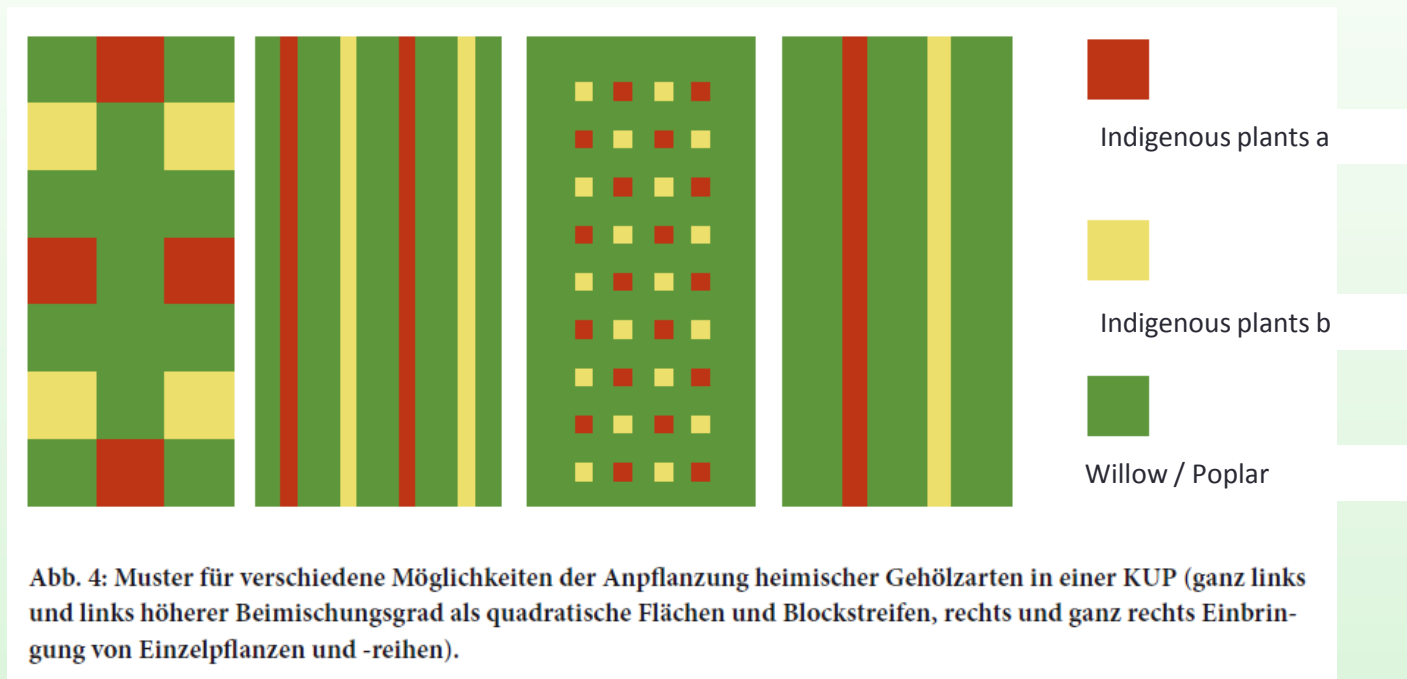


- Simultaneous cultivation of SRC / trees and other (annual) crops on the same piece of land
- Special form of SRC

As „structural“ element e.g. along roads



Example: HOW SRC could be planted



Source: BFN;











<http://192.168.0.121:9091/servlet/com.trend.iwss.user.servlet.sendFile?downloadfile=RES-1915876354-E62A92C0-10574-10466-8>


SRCplus project

- ✓ Promotion of sustainable agricultural practises for SRC cultivation
- ✓ Increase the knowledge and awareness of farmers, public land owners and woodchip users about SRC supply chains
- ✓ Funds: Intelligent Energy Europe programme
- ✓ Duration: 3 years

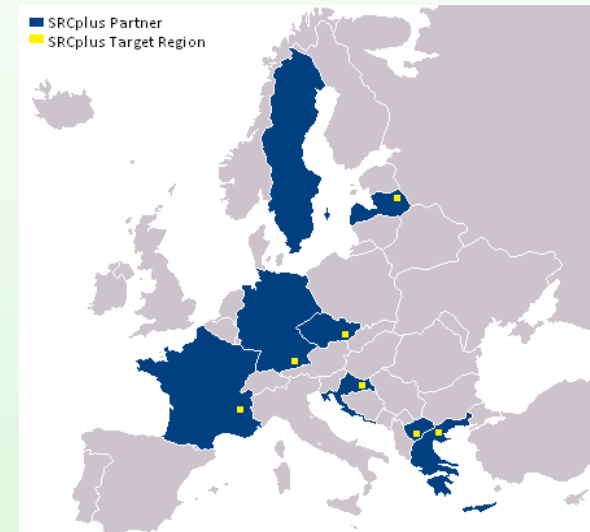
Partners

✓ 10 project partners from 8 countries in Europe

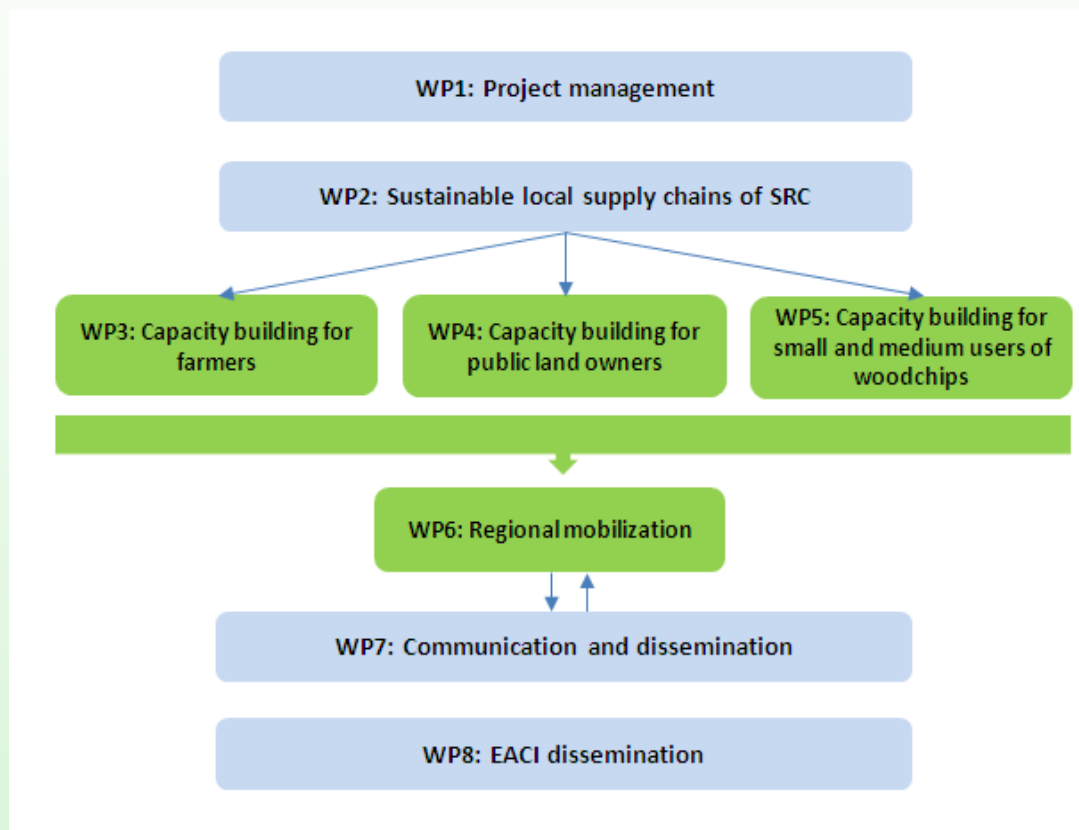
 <p>WIP Renewable Energies, Germany</p>	 <p>Biomassehof Achental, Germany</p>
 <p>Secondary School Car Samoil - Resen, Macedonia</p>	 <p>Swedish University of Agricultural Sciences, Sweden</p>
 <p>Latvian State Forest Research Institute Silava, Latvia</p>	 <p>Community of Communes of Trièves, France</p>
 <p>EIHP, Croatia</p>	 <p>EKODOMA, Latvia</p>
 <p>CRES, Greece</p>	 <p>Energy Agency of the Zlin region, Czech Republic</p>



Co-funded by the Intelligent Energy Europe Programme of the European Union



Project structure

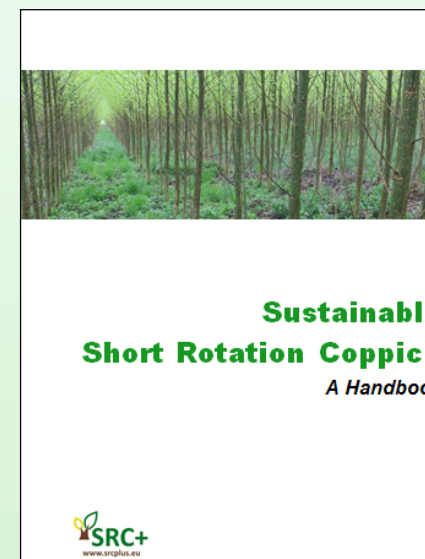


Actions

- ✓ Capacity building events
- ✓ Knowledge transfer
- ✓ Regional mobilization actions
- ✓ Cooperation activities with industry
- ✓ Show cases of good practise examples

Achieved results

- ✓ SRC production in 7 European countries
- ✓ Best practice examples on sustainable local supply chains of SRC
- ✓ Sustainability criteria and recommendations for SRC
- ✓ Benefits of SRC for farmers
- ✓ Implementation concepts for SRC in 7 European regions
- ✓ Handbook – in preparation
- ✓ More information
<http://www.srcplus.eu/en/publications.html>
- ✓ <https://www.facebook.com/groups/716265301749562/>
- ✓ <https://twitter.com/srcplus2014>



Thank you for your attention!

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