DIGItal Tools to boost AgroForestry

Financial Tools for Agroforestry – Discover practical digital tools for financial management in agroforestry

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[3]DeFAF (German Association for Agroforestry), Cottbus, Germany

Agenda

Introduction

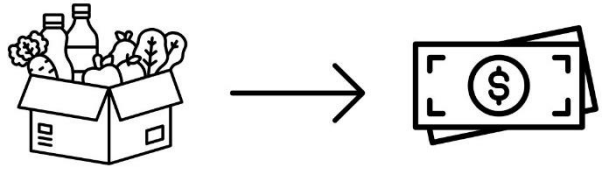
Tools

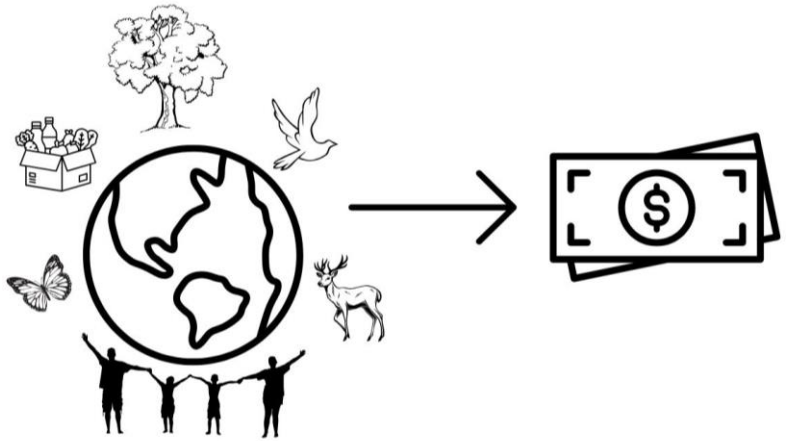
- INTACT | Sarah Carton (ILVO)
- FARMSAFE | Laura Cumplido Marin (Cranfield)
- AgroforstRechner | Rico Hübner (DEFAF)

Conclusions

INTRODUCTION

Financial vs. Economic assessments



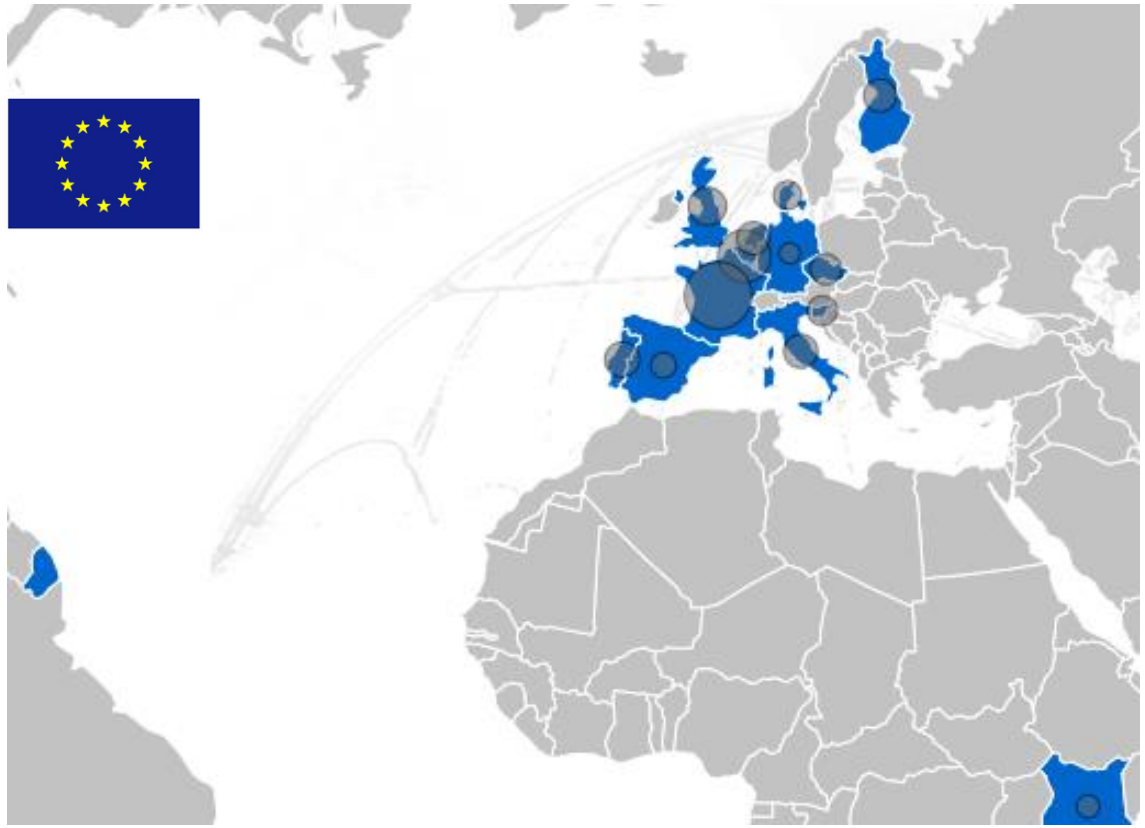


Financial assessment	Economic assessment
From the perspective of the farmer or land manager	From the perspective of society or government
Focus on actual cash transfers	Can include non-monetary benefits and costs such as improved biodiversity and landscape aesthetics

Project overview

"DIGItal Tools to help AgroForestry meet climate, biodiversity and farming sustainability goals: linking field and cloud"

- 32 Partners
- **Lead:** INRAe
- **Project page:** digitaf.eu
- **Tool Database:** click here
- **EURAF ShinyApp Server / DSS:** click here



Living Labs

United Kingdom
July 8, 2025

Living Lab profile Type of Living Lab: Seed Lead partner: CRAN – Cranfield University Climatic zone: Atlantic Type of Agroforestry Systems:...

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Netherlands
July 8, 2025

Living Lab profile Type of Living Lab: Advanced Lead partner: LBI – Stichting Louis Bolk Instituut Climatic zone: Atlantic central Type...

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Italy
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Living Lab profile Type of Living Lab: Seed Lead partner: Department of Agriculture, Food and Environment at the University of...

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Germany
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Living Lab profile Type of Living Lab: Seed Lead partner: DeFAF Climatic zone: Continental Type of Agroforestry Systems: Silvoarable, silvopastoral Type of farming:...

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Finland
July 8, 2025

Living Lab profile Type of Living Lab: Seed Lead partner: EFI – European Forest Institute Climatic zone: Boreal Type of Agroforestry...

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Czech Republic
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Living Lab profile Type of Living Lab: Seed Lead partner: CZU, VUKOZ Climatic zone: Continental central EU Type of Agroforestry Systems:...

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Financial working group

- Started in 2023
- Steered by executive board, particular effort from Bert Reubens (ILVO)
- Participants are members from all of DigitAF's WPs
- **Organised 2 international workshops on financial tools for agroforestry:**
  - November 2024, in The Netherlands
  - February 2025, in The UK
- **Outputs:**
  - Contribution to the successful submission of 3 project deliverables
  - Financial factsheets
  - Scientific articles

DigitAF Tools and Data Catalogue

Agroforestry Tools, Data & Projects Catalogues

Tools ▾ Data ▾ Projects ▾

Tools Catalogue

50 tools currently available

4 **new tools** in the last three months

Add yours here!

A big thank you to **Rico Hübner**, **Sarah Carton** and **Bert Reubens** for their recent contributions.

Check out the latest addition: **AgroForstRechner**

Browse all tools

Data Catalogue

31 datasets currently available

2 **new datasets** in the last three months

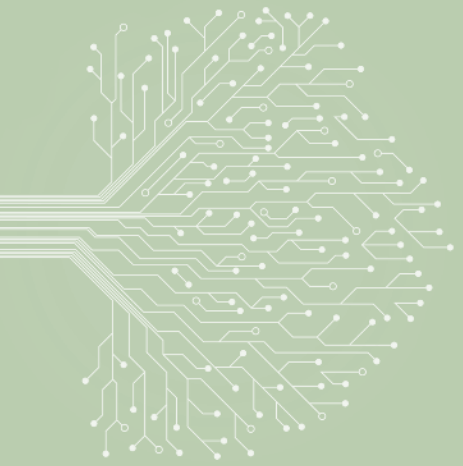
Contribute here!

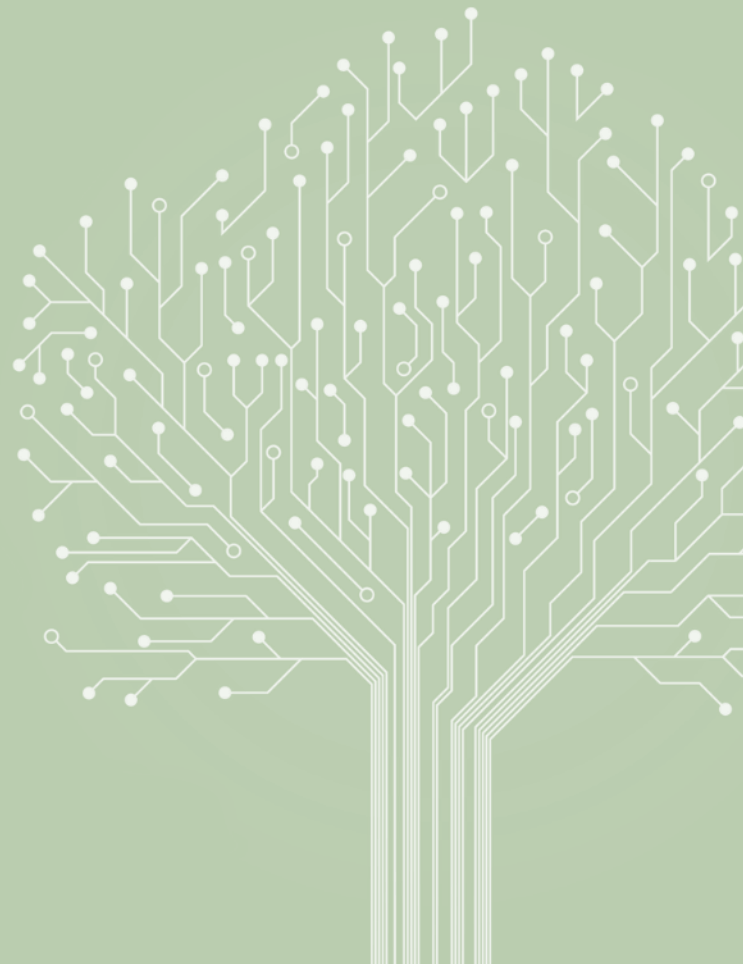
Many thanks to **Sonja Kay**, **Paul Burgess** and **Rico Hübner** for contributing with dataset references.

Take a look at the newest addition: **Swiss Agroforestry Tree Monitoring Dataset**

Explore the data catalogue

INTACT





Tool 1: INTACT

Introduction

INSIGHT INTO COSTS AND BENEFITS OF AFS

Lack of understanding of costs and benefits is a major obstacle for interested farmers,

TREES/SHRUBS ARE OFTEN A NEW COMPONENT

How to ensure an easy understanding about costs and benefits of the tree component?

INTACT

Guiding users through the relevant tree and shrub-related costs and benefits.

Tool 1: INTACT

Introduction

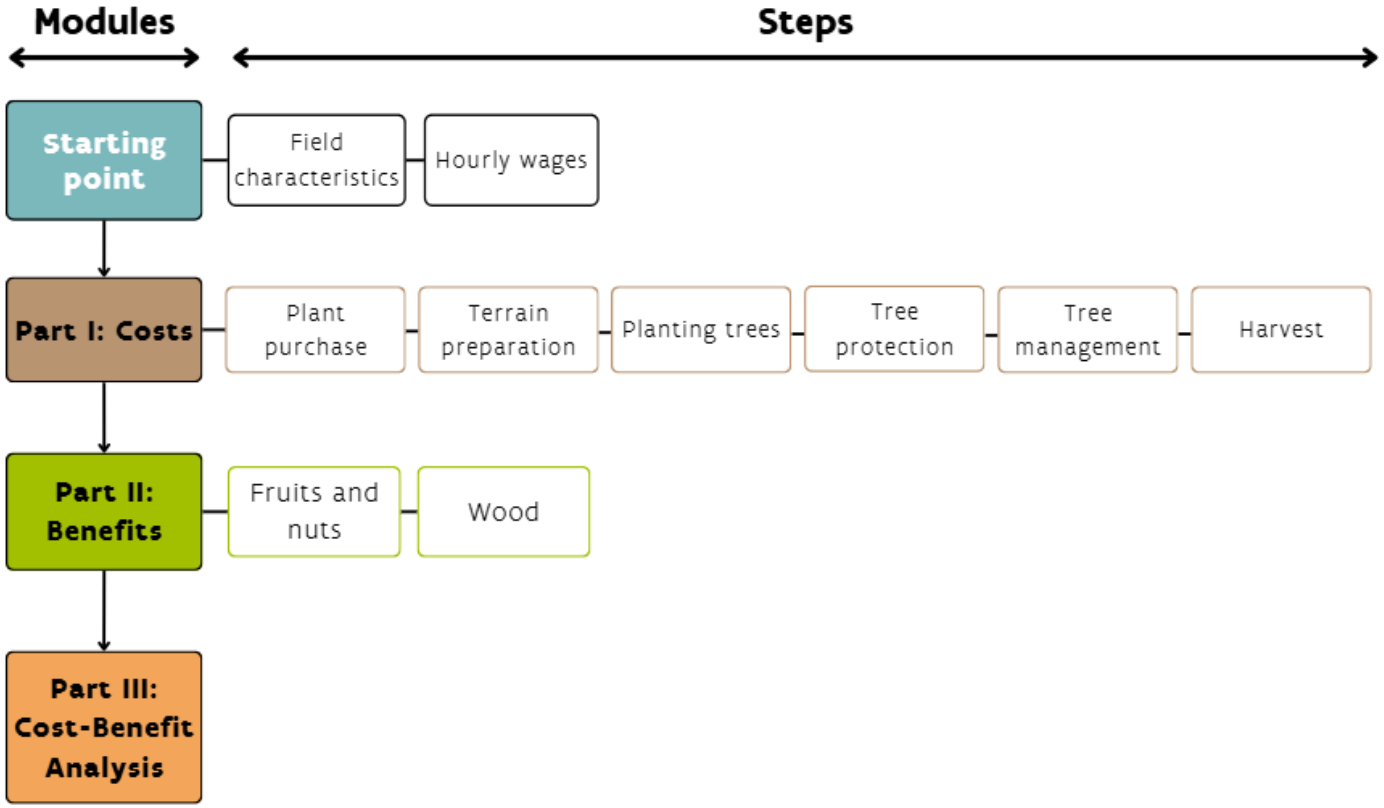
- INTACT is developed throughout the projects DigitAF, Agromix, and FarmLife

- INTACT is... a **financial** tool which can be used to get insight into the **costs and benefits** of **trees** and **shrubs** within a (new) **agroforestry project** for the first **20 years** after planting trees.

- INTACT1.0 covers...
- the majority of aspects of **investment** and **maintenance costs**
- an **estimate** of the **expected income** from **trees** and **shrubs**, for species that are frequently planted in agroforestry systems
- a partial analysis: accounts only for costs & benefits related to tree/shrub component (**no crops or animal production**)

Tool 1: INTACT

Tool Architecture

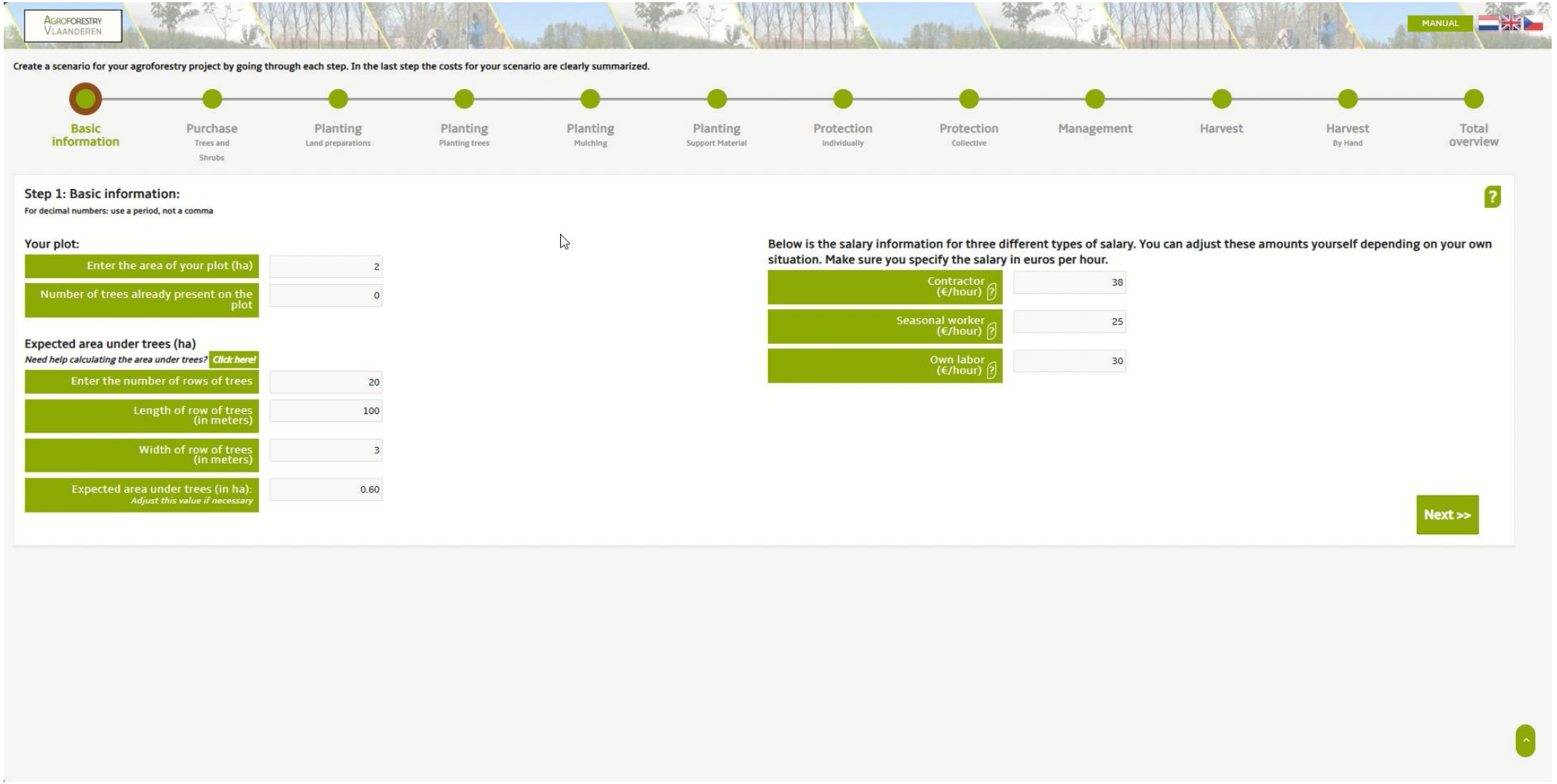


Unit scale:

- The user specifies the area (=plot) of the agroforestry project.
- Final results will be expressed **per plot** and **per ha.**

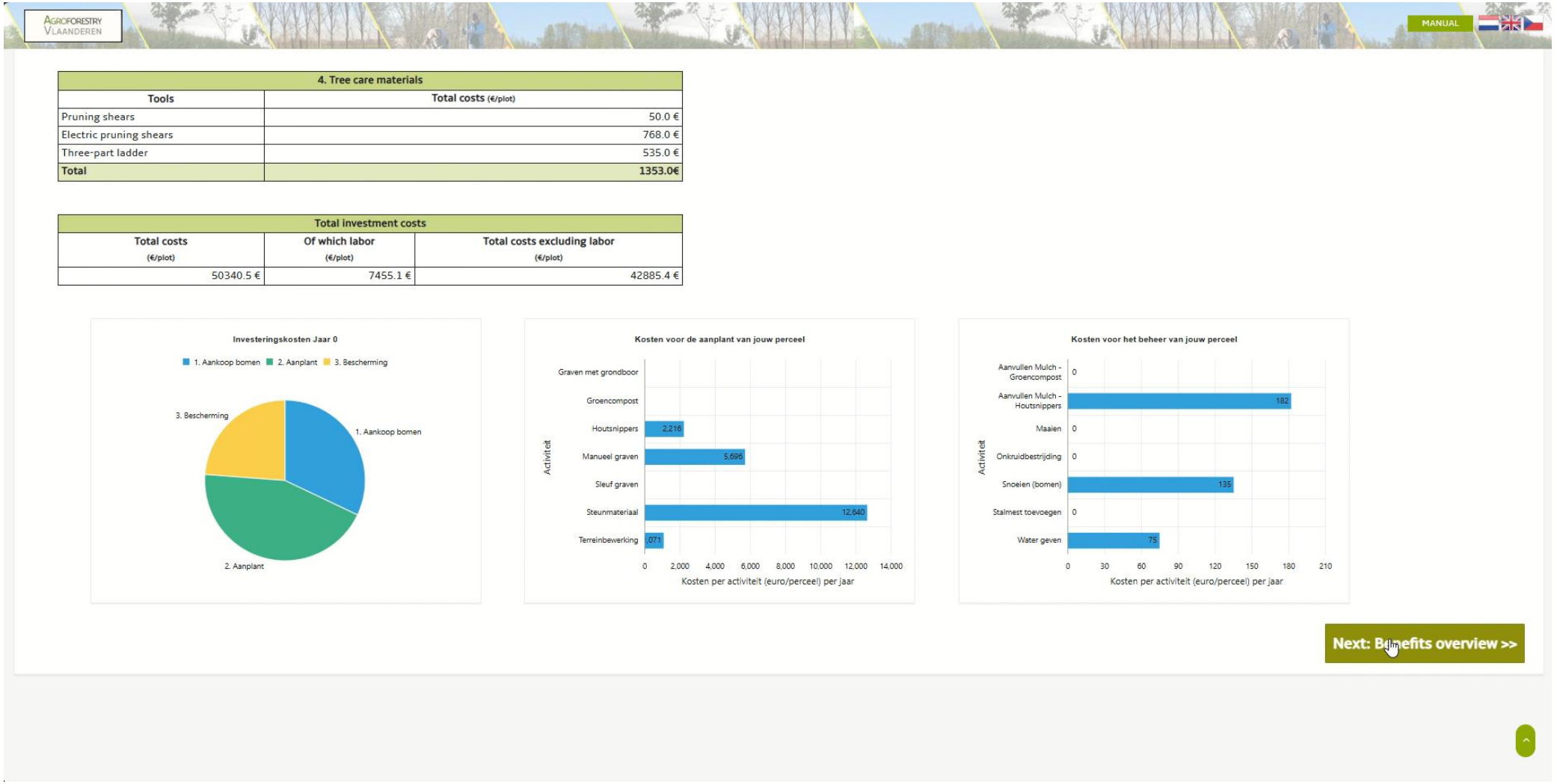
Tool 1: INTACT

Step-by-step explanation of the Cost Module



Italian case study

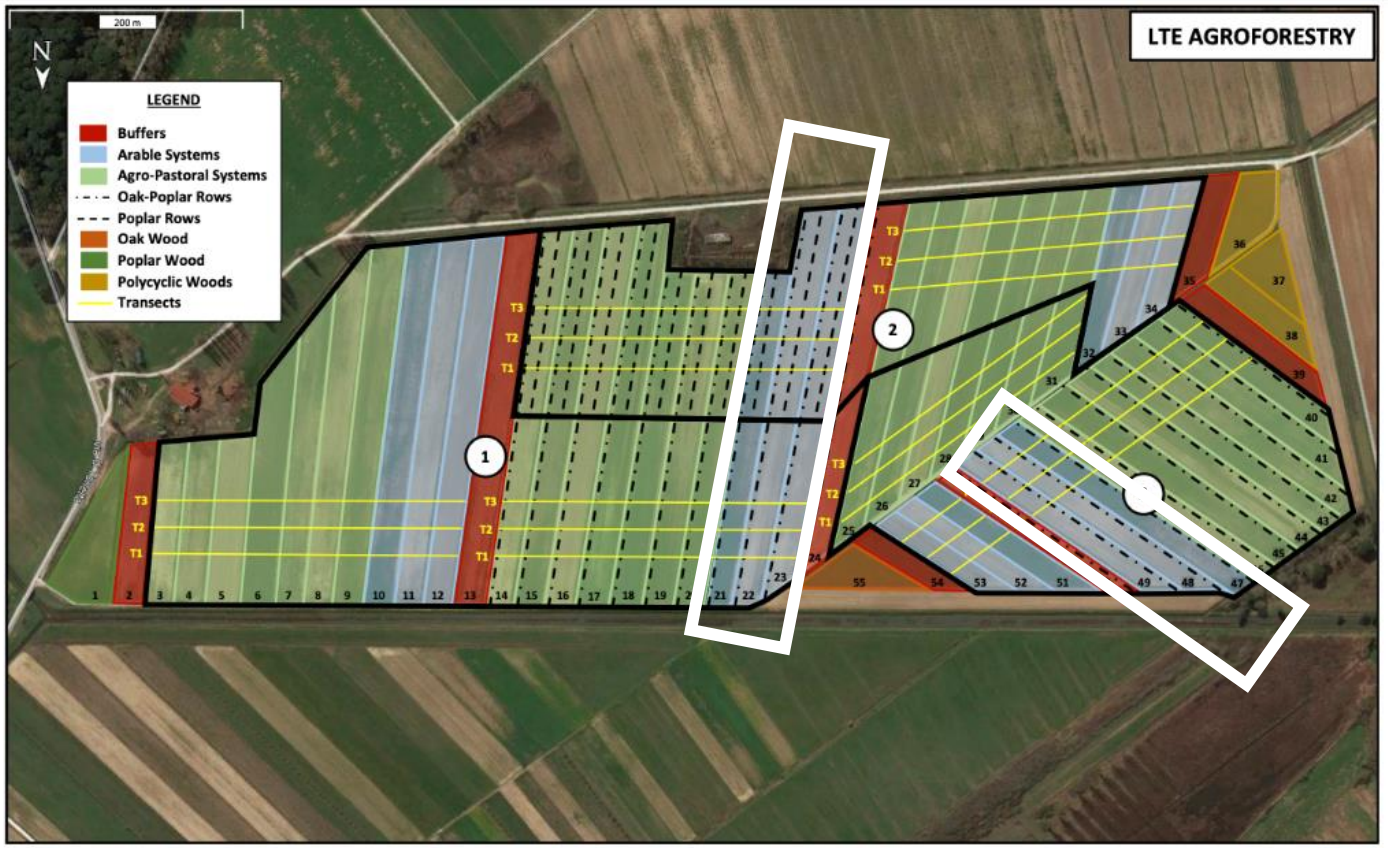
Step-by-step explanation of the Benefits Module



Italian case study

ArninoLTE – CiRAA, Pisa

- Living Lab ArninoLTE in Italy
- Long-term experiment, 40 ha with 5 systems
- Case study focusing on the **silvoarable system** (3-year crop rotation: arable with trees) – > see white rectangles
  - Simulated in INTACT
    - Oak and poplar rows
    - No crops



© Alice Ripamonti, Università di Pisa, Agricultural Sciences Department

Tool 1: INTACT – data input (IT)

Applying INTACT to the IT LL

For modelling the Italian case study, we used a combination of default data (all referenced within INTACT) and data from conversations with the farm managers to identify the costs and benefits of production.

Table 1. User info LL Italy

Inputs	Units	Value
Surface agroforestry plot	(ha)	3.28
Number of trees	(n)	284
Tree density	(n ha^{-1})	86.59
Expected surface of tree rows	(ha)	0.355
Gross salary - contractor	(€ h^{-1})	19.24
Gross salary – seasonal labour	(€ h^{-1})	19.24
Gross salary - farmer	(€ h^{-1})	19.24

Table 2. Input data LL Italy for a simulation with INTACT

Costs - Investment	**Total costs (€ $plot^{-1}$)**	**Labour (h $plot^{-1}$)**	**Of which labour costs (€ $plot^{-1}$)**
Plant material			
Poplar (*Populus canadensis robusta*)	355		
Oak (*Quercus robur*)	355		
Transport	450		
Tree establishment			
Excavation with auger for digging hole for planting seedlings. For planting poplar on cultivated ground, diameter 30 cm, depth 100 cm. Supply not included	378	unknown	unknown
Planting manually	753	11.42	468.60
Tree protection			
Game fence	20 000	unknown	unknown
Costs - Operational	**Total costs (€ $plot^{-1}$ $year^{-1}$)**	**Labour (h $plot^{-1}$ $year^{-1}$)**	**Labour costs (€ $plot^{-1}$ $year^{-1}$)**
Tree management			
Weed control	151	unknown	unknown
Watering trees	535	4.00	unknown
Pruning (annual maintenance)	592	21.67	unknown

Tool 1: INTACT – Results explorative simulation

Results simulation INTACT

Financial metrics	Units	Value	Additional info
NPV	(€)	-€22 244	At a 4% discount rate
IRR	(%)	-4	Annual return
Investment cost (excl. VAT and without subsidy)	(€)	€22 290	One-time investment in Year 0
Payback period	(Years)	-	Based on cumulative free cash flow
Benefit: Cost Ratio	/	1: 1.91	Benefits per €1 invested

EXPLORATIVE SIMULATION

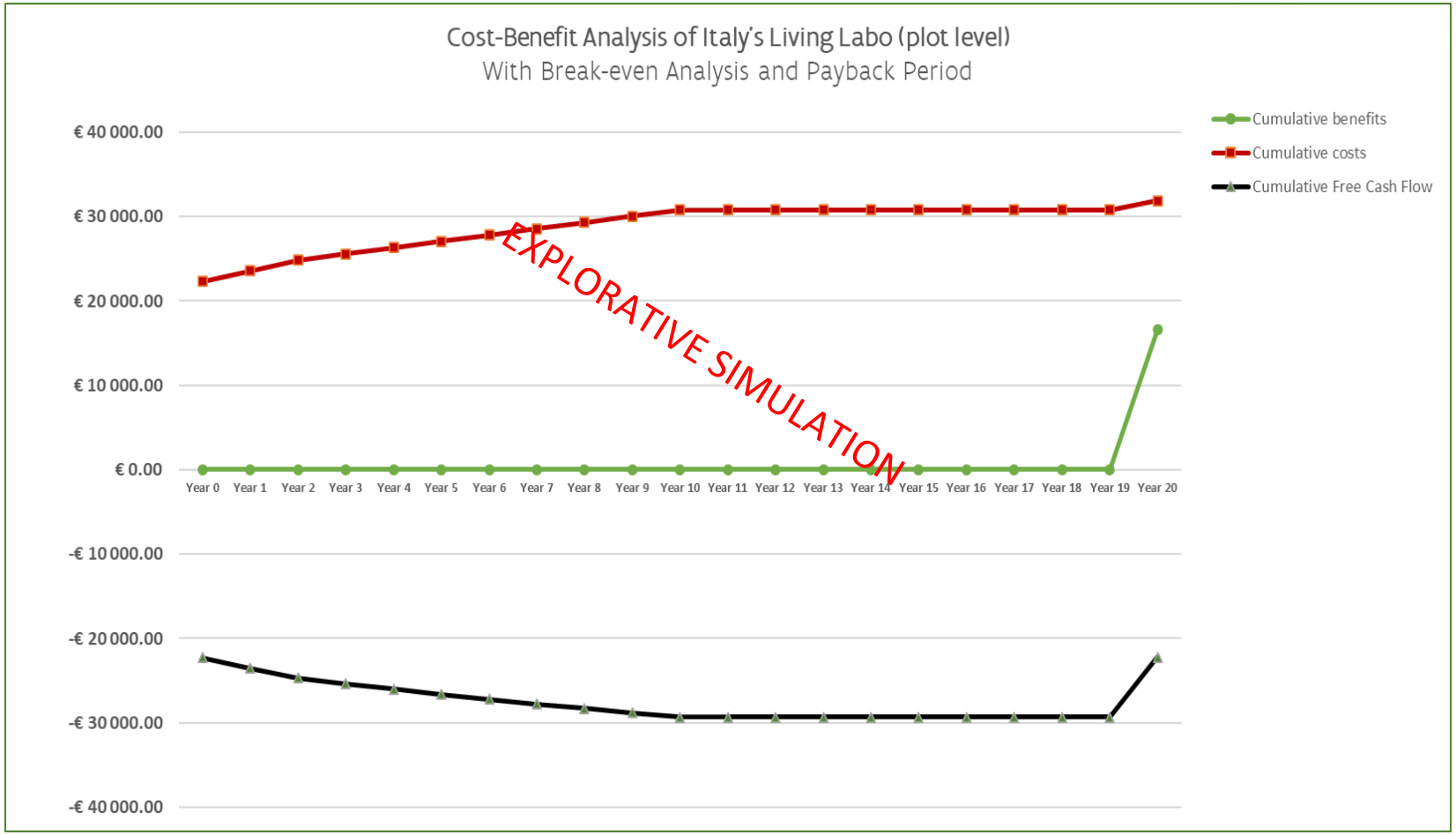


Figure 16. Cost-benefit analysis of the Italian case study. The results include the revenue from timber (green line) and the costs (red line). In this case, there is no break-even point as the costs incurred in year 0 are not covered by the revenue in year 20.

Reflections Italian case using INTACT

Important remarks

- Timber production: in general, **difficult to be profitable in a 20-year period**…
  - Oak: slow-growing species (does not fit INTACT's simulation time)
  - Poplar: fast-growing species (fits INTACT's simulation time)
- **Expensive fence** (€20 000) to protect from wildlife affects the profitability
- The **wood price** used in the explorative simulation was **too low** (€32.57/m3). This price turned out to be suitable for firewood but not for timber. With recent numbers, popular timber could range from 100-150 euros/m3 (depending on the diameter and wood quality) **in Italy**.

Model limitations

- INTACT would benefit from an extended simulation period beyond 20 years, especially when simulating timber yield.
- INTACT would benefit from including crop (and animal) production.

INTERPRETATION

INTACT does not replace professional advice and consultancy.

Adjustments & Next steps

Adjustments made

- The **INTACT model** was designed for understanding the costs of benefits of the tree component only:
- INTACT can only apply one hourly wage per step (e.g. Tree establishment) but within that step, multiple tasks can be performed by different people (contractor, seasonal labour or farmer) whom all have different hourly wages: *the Excel model was adjusted accordingly.*
- INTACT calculates costs based on tree size for e.g. tree establishment and tree management. However, the user could only select one tree size per species: *the Excel model was adjusted accordingly.*

Next steps

- Re-run the Italian case study with new data and a longer timespan (in Excel)
- Get the INTACT1.0 web tool up and running again in 2026 (currently offline due to technical issues)
- Implement the above-mentioned adjustment to the web tool
- Develop the tool in Python

References

Tool data

[1]Bijl, M. & Forestry Service Group (FSG) (2021). AFP Model (Model 5) [Dataset].

[2]CARAT development team (2023). CARAT: an online tool for quantifying carbon sequestration in agroforestry systems, developed in collaboration with BDB, ILVO and Fornalab, Belgium.

[3]Consortium Agroforestry Vlaanderen. (n.d.). Agroforestry Planner. Retrieved December 19, 2023, from https://bdbnet.bdb.be/pls/apex/f?p=147:11

[4]De Jaeger, L. (2022). Berekentool voor Voedselbossen (Version V280922) [Dataset].

[5]HAS hogeschool (2021). Voedselbos Rekentool 3.0 [Dataset]. In Voedselbos Rekentool Handleiding Bundel (Version 3.0).

[6]McPherson, E. G., Van Doorn, N. S., & Peper, P. J. (2016). Urban Tree Database [Dataset]. In Forest Service Research Data Archive. https://doi.org/10.2737/rds-2016-0005

[7]van Raffe, J. K., & de Jong, J. J. (2020). Normenboek natuur, bos en landschap 2020: Tijd- en kostennormen voor inrichting en beheer van natuurterreinen, bossen en landschapselementen. Wageningen Environmental Research.

Manual INTACT 1.0

https://www.agroforestryvlaanderen.be/en/agroforestryplanner

Dataset

Carton, S., Rahahleh, J., & Reubens, B. (2024). Dataset of INTACT: INTeractive Agroforestry Cost-benefit analysis Tool [Data set]. Zenodo. https://doi.org/10.5281/zenodo.11281617

ILVO

INTACT is part of the Agroforestry Planner

Consortium Agroforestry Flanders

DENTRO ↗

This tree species selection tool allows you to choose species for your new agroforestry project (available soon).

BETULA ↗

With this design tool, you create a step-by-step plan, taking into account various aspects, for a new agroforestry project.

INTACT ↗

INTACT is temporarily unavailable due to maintenance - we advise you not to use the too until this message disappears.

CARAT ↗

This carbon tool allows you to simulate below- and above-ground carbon storage for your agroforestry project.

MIMOSA ↗

This nut harvesting tool gives you insight into how to harvest nuts cost-effectively within your agroforestry project.

E-Academy Agroforestry ↗

This e-learning tool allows you to build basic knowledge about agroforestry.

AGROFORESTRY VLAANDEREN

[Agroforestry Planner - Agroforestry]

Farm-SAFE

Farm-SAFE v3 - Comparing the financial benefits and costs of arable, forest, and agroforestry systems

Files

Farm-SAFE v3.xlsx (1.06 MB)
Farm-SAFE v3 User Guide.pdf (1.4 MB)

Date published

2024-02-06 13:58

Authors

Graves, Anil
Burgess, Paul
Wiltshire, Catherine
Giannitsopoulos, Michail
Herzog, Felix
Palma, Joao

Publisher

Cranfield University

Type

Software

URI

https://dspace.lib.cranfield.ac.uk/handle/1826/22350

Citation

Graves, Anil; Burgess, Paul; Wiltshire, Katy; Giannitsopoulos, Michail; Herzog, Felix; Palma, Joao (2024). Farm-SAFE v3 Comparing the financial benefits and costs of arable, forest, and agroforestry systems. Cranfield Online Research Data (CORD). Software. https://doi.org/10.17862/cranfield.rd.25151465

Abstract

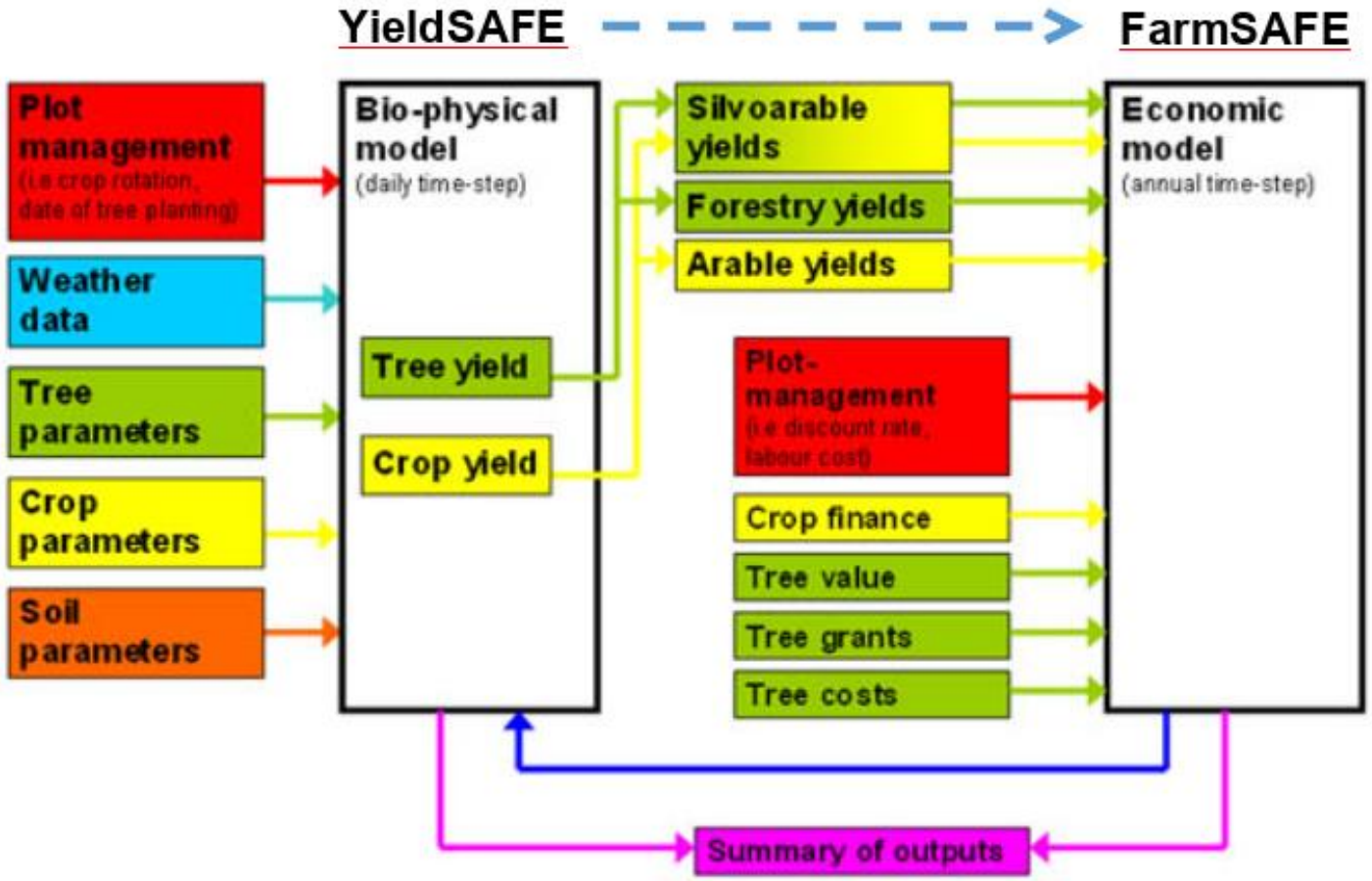
Agroforestry systems integrate trees with livestock and/or arable crops on the same parcel of land. Compared to monoculture arable or grass systems, agroforestry systems can enhance soil conservation, carbon sequestration, species and habitat diversity, and provide additional sources of farm income. Farm-SAFE (Financial and Resource use Model for Simulating AgroForestry in Europe) is a spreadsheet-based bio-economic model which has been developed in Microsoft® Excel® to compare the financial benefits and costs of crop-only, tree-only, and agroforestry system over tree rotations of up to 60 years (Graves et al., 2024a). The results are presented in both graphical and tabular form in terms of a net present value and equivalent annual values. A description and user guide is also available (Graves et al., 2024b). Farm-SAFE requires input of tree and crop yields. One way to obtain crop and tree yields in tree-only, agro-forestry, and crop-only systems is to use the Yield-SAFE model. Yield-SAFE is a spreadsheet-based bio-physical model which has been developed to enable the prediction of the relationship between tree and crop yields over the rotation of the tree component. A copy of the Yield-SAFE model, together with a full de-scription and user guide, is available here. The original Farm-SAFE model was developed with funding from the European Union through the Silvoarable Agroforestry For Europe project (contract number QLK5-CT-2001-00560). The process of creating a default publicly available version of the model has been enabled through the BioForce project funded by the UK Department for Energy Security and Net Zero. Graves, A.R., Burgess, P.J., Wiltshire, C., Giannitsopoulos, M., Herzog, F., Palma, J.H.N. (2024a). Farm-SAFE v3 model in Excel. Cranfield, Bedfordshire, UK: Cranfield University. Graves, A.R., Burgess, P.J., Wiltshire, C., Giannitsopoulos, M., Herzog, F., Palma, J.H.N. (2024b). Description and User Guide for Farm-SAFE v3. January 2024. Cranfield, Bedfordshire, UK: Cranfield University. 42 pp.

Keywords

Agroforestry', 'Farm-SAFE', 'Farm economics', 'Profit', 'crop yields', 'silvoarable', 'silvopasture'

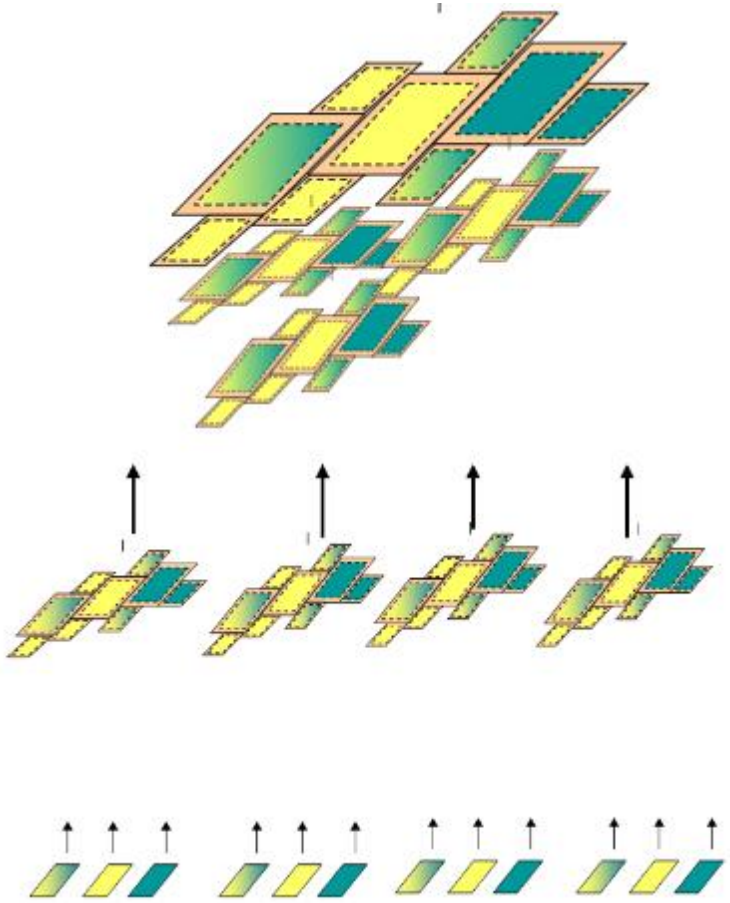
SAFE project: Cranfield's bioeconomic model

YieldSAFE and FarmSAFE were developed for silvoarable systems on the SAFE project



Farm-SAFE: financial analysis model

Working areas



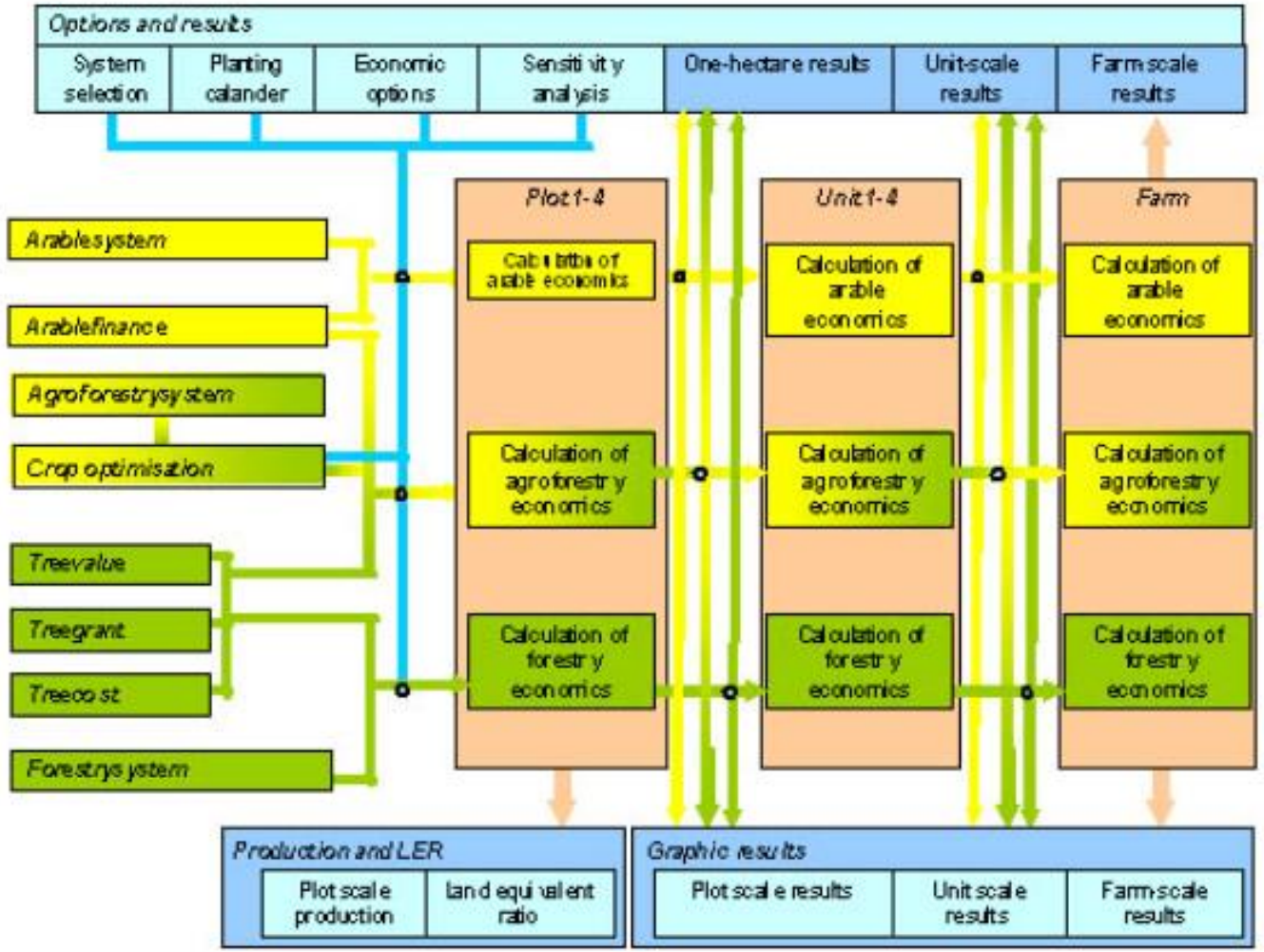
Farm scale:
A heterogenous area managed as one business. Fixed costs and a range of enterprise and land types are typically included

Unit scale:
A homogenous area of a specified size managed as a unit, but potentially including a range of enterprises

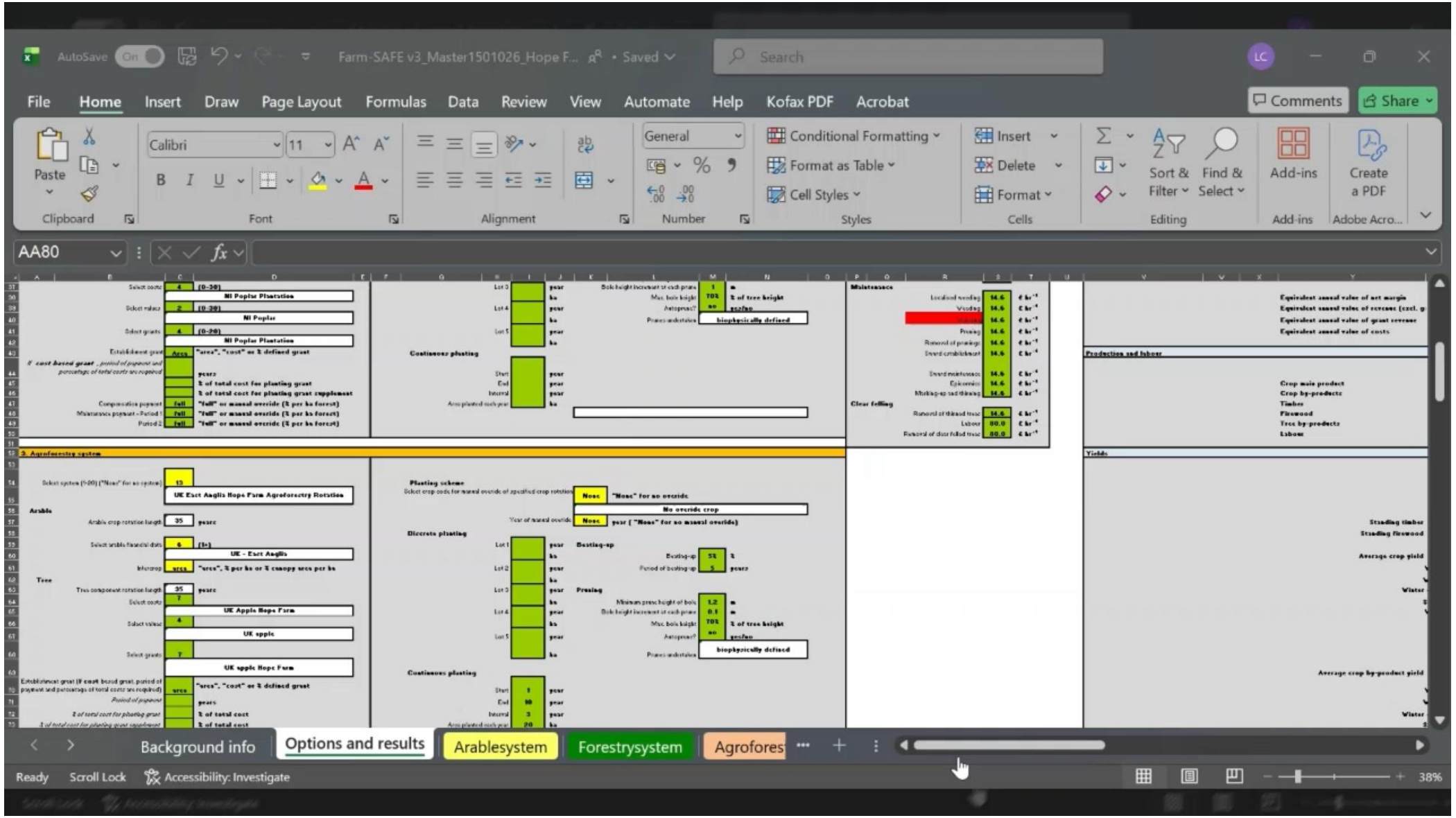
Plot (one-hectare) scale:
Homogenous area with economic data typically based on gross or net margins per hectare

Farm-SAFE: financial analysis model

Architecture



Farm-SAFE: quick demo



RSPB's Hope Farm

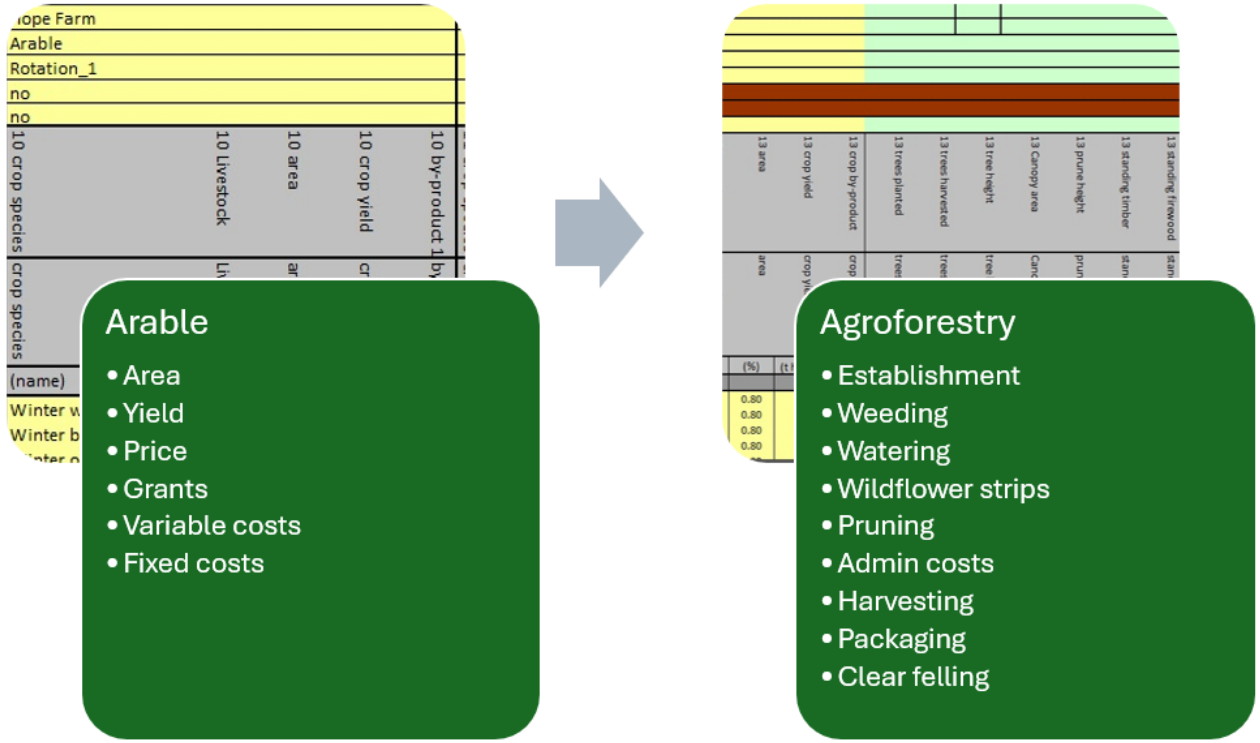
Commercial arable farming **Fair to Nature certified**

- Total area: **181 ha**
- Area of pasture: **6 ha**
- Agroforestry area: **11 ha**
  - Design: wide alley cropping system 24 m between tree strips with 6 m wide wildflower strips; 3 m between trees within tree row
  - Crops: w wheat, w barley, w oilseed rape, s barley, w beans
  - Tree species planted at 83 trees/ha
    - Deciduous trees
    - Hazel
    - Apple

Modelling with Farm-SAFE – data input

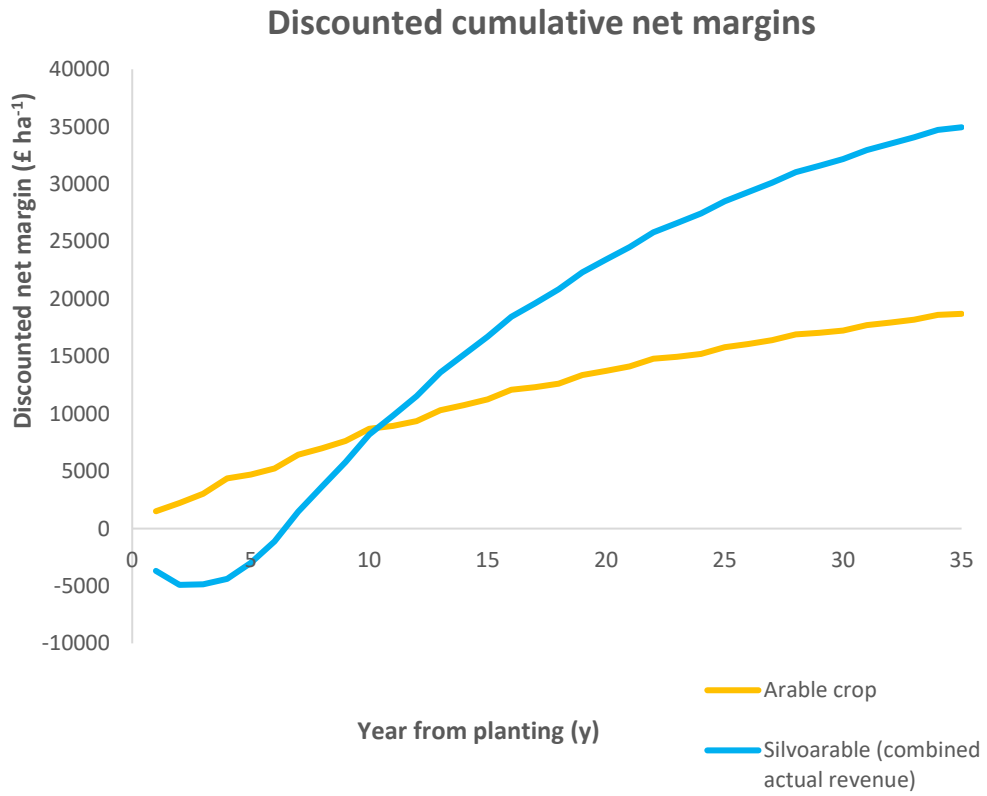
Commercial arable farming **Fair to Nature certified**

- Arable crop rotation
- Expected peak apple yield of 45 kg/tree
- Assumption: no effect of trees on crop growth within alleys (wide strips, intensive pruning of trees)
- Costs included:



Financial analysis using Farm-SAFE – results

Explorative simulation



Results over 25 years	Arable (£ ha^{-1})	Silvoarable (£ ha^{-1})
Undiscounted product revenue	54682	141067
Undiscounted grant revenue	6300	5051
Undiscounted costs	27656	75293
Undiscounted net margin	33326	70826
Discounted product revenue (€ ha^{-1})	30600	76143
Discounted net margin (€ ha^{-1})	**18702**	**34949**

Introduction to case study: RSPB's Hope Farm analysis using Farm-SAFE – results

Farmer's perception of agroforestry system

Perceived benefits	Perceived disadvantages
Increased biodiversity (more insects; full impact to be determined)	Expensive: time and finances
Increased community engagement	Complicates business
Potential soil and carbon benefits	Steep learning curve learning how to look after the system
Diversified income	Reduced income from field for the first 5 years
Increased aesthetics (wildflower strips)	

Reflections from researchers using Farm-SAFE

Limitations

- The model only incorporates one tree species at a time in one system

Evolution and expansions

- Farm-SAFE has been adapted to evaluate environmental externalities:
  - ✓GHG emissions from farm operations and manufacturing of machinery and agrochemicals
  - ✓Carbon sequestration of above-ground biomass
  - ✓Soil erosion losses by water
  - ✓Nitrogen leaching

From a financial assessment to a partial economic assessment

- Adaptations recently made to original Farm-SAFE for it to work with specific case studies:
  - Water irrigation costs for tree establishment phase were incorporated
  - Packaging costs for apples were also incorporated
  - Labour for harvesting operation is calculated according to the yield

AgroforstRechner

Tool 3: AgroForstRechner from researchers using Farm-SAFE

Comparison of profitability of arable and wooded areas

- a flexible and comprehensive method for the economic evaluation of agroforestry systems
- enables the economic evaluation and comparison between the management of woody plants on arable land and the conventional cultivation of arable crops
- contributes to decision making
- MS Excel based program interface
- Possible uses of the trees include:
  - the sale of wood chips,
  - the distribution of logs and
  - the energy recovery of wood chips through cogeneration systems

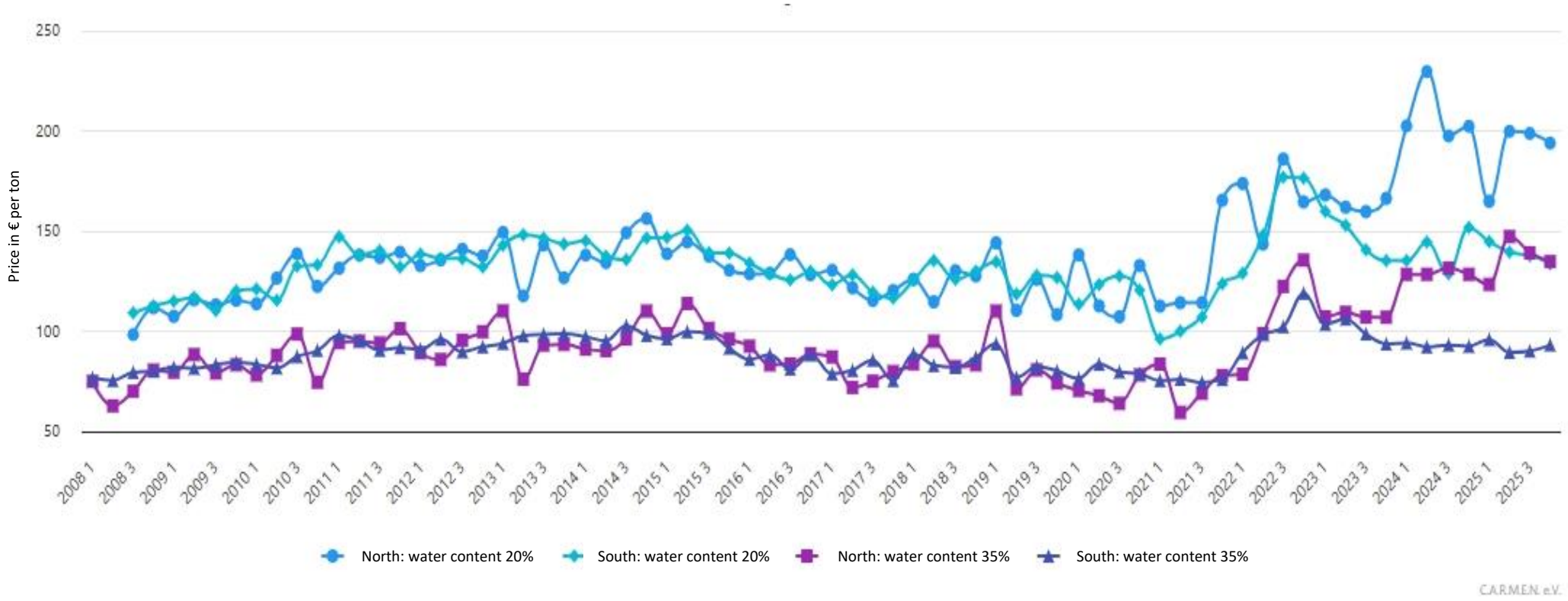
Tool 3: AgroForstRechner

Comparison of profitability of arable and wooded areas

- The economic analysis is carried out by calculating extensive input parameters and is based on **dynamic investment calculations**, using key business indicators such as capital value and annuity.
- An integrated database is available to support certain **input parameters** with guideline values that serve to improve the estimation and direct inclusion in the calculation (no consideration of funding programs).

Tool 3 data: Wood chip prices Germany north / south

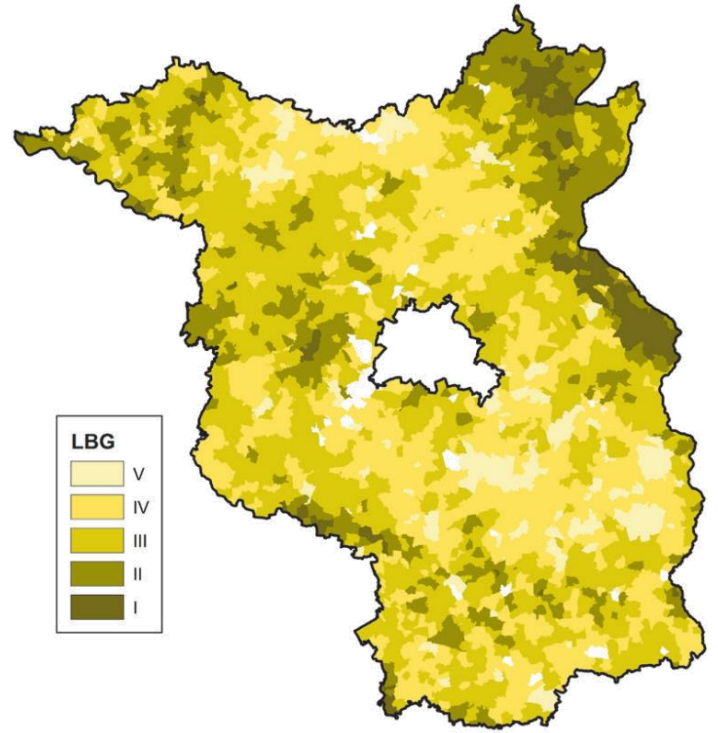
Price development of wood chips 2008 to 2025



Tool 3: area characterisation

Land Productivity Classes (LBG) – English Version

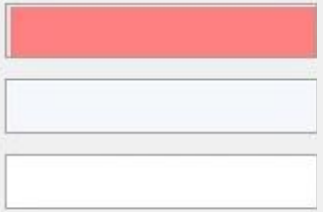
LBG	Arable Land Value (Ackerzahl)	Share of Arable Land (%)	Characterization of Soils for Agricultural Use
I	> 45	7.3	Soils suitable for wheat and sugar beet cultivation
II	36–45	22.2	Soils suitable for barley, wheat, and sugar beet
III	29–35	36.4	Rye and potato soils; conditionally suitable for barley and oilseed rape
IV	23–28	27.1	Rye soils; suitable for potatoes and, to some extent, maize
V	< 23	6.9	Marginal sites for agriculture; suitable for rye (lupin, serradella)



Site conditions such as climate, groundwater connection or soil properties are not taken into account

Tool 3: workflow

Input / output fields

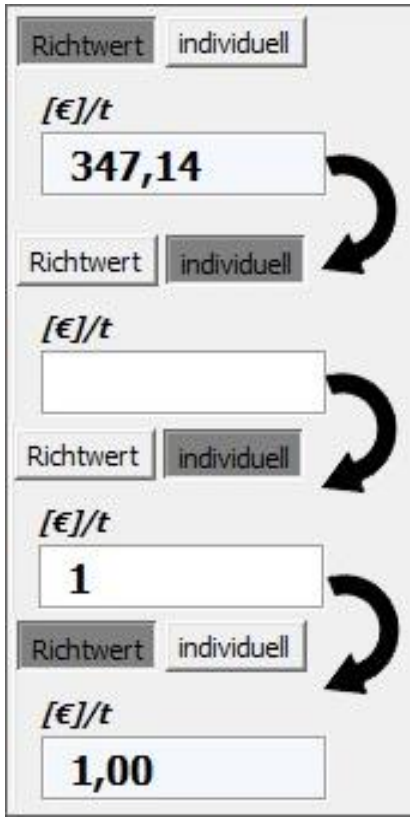


Red-shaded fields are mandatory fields that must be completed for the correct calculation of the respective crop.
Light-grey shaded fields do not allow input; these are usually output-only fields.
White-shaded fields allow input but are not mandatory. Some light-grey fields can be converted into white input fields using the “Individual” button, allowing users to enter their own values instead of the default reference values.

Completedness

The step counter shows how many mandatory fields still need to be completed to ensure an adequate calculation for the respective section.
For example, if all **3 of 3** required fields have been completed, a **green check mark** is displayed. In addition, fields that were previously highlighted in red as mandatory fields are shown with a **white background** once a value has been entered.

Individual values

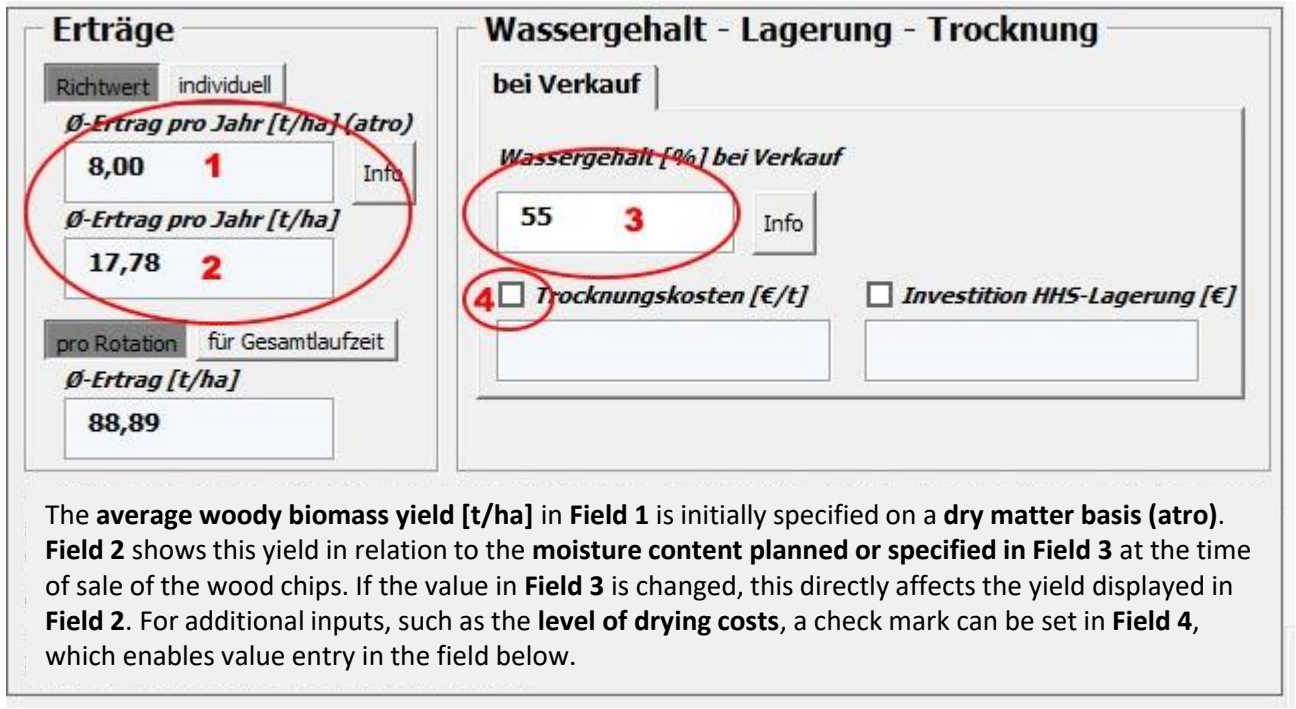


Reference Value vs. Individual Value
The **reference value** is an orientation value taken from the program’s internal database.
By clicking the **“Individual”** field, the (now white) input field is activated, allowing the entry of any user-defined value.
For example, if the value **“1”** is entered, this value will also be shown under the **“Reference value”** tab.
The original reference value reappears under the **“Reference value”** tab as soon as the value **“1”** entered under the **“Individual”** tab is deleted.

„individuell“ gelöscht wird.

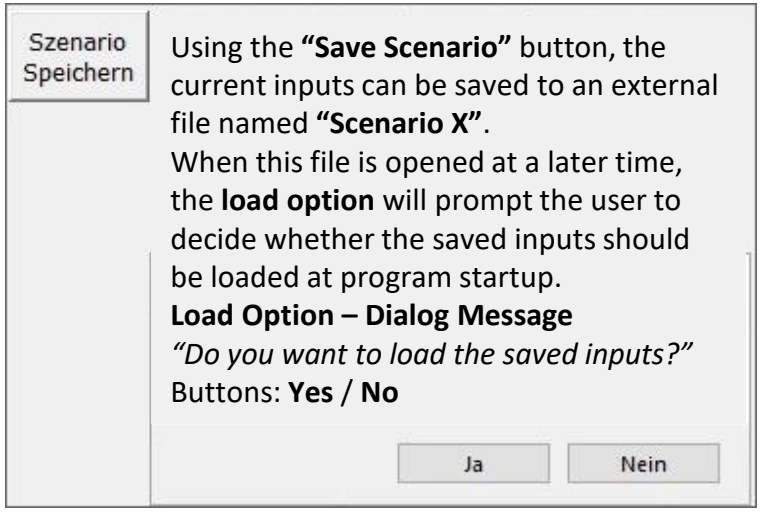
Tool 3: workflow

Yields, Moisture Content, Storage, Drying



The **average woody biomass yield [t/ha]** in **Field 1** is initially specified on a **dry matter basis (atro)**. **Field 2** shows this yield in relation to the **moisture content planned or specified in Field 3** at the time of sale of the wood chips. If the value in **Field 3** is changed, this directly affects the yield displayed in **Field 2**. For additional inputs, such as the **level of drying costs**, a check mark can be set in **Field 4**, which enables value entry in the field below.

Storage of results



Using the **"Save Scenario"** button, the current inputs can be saved to an external file named **"Scenario X"**.
When this file is opened at a later time, the **load option** will prompt the user to decide whether the saved inputs should be loaded at program startup.
Load Option – Dialog Message
"Do you want to load the saved inputs?"
Buttons: **Yes** / **No**

Introduction to case study

Arable

A: silvoarable system with short rotation coppice (SRC) on arable land with poplar

B: riparian buffer strip with alder

D: mixed hardwood species

E: silvopastoral system with chicken and black locust;

F: orchard alleys on arable land

Grassland

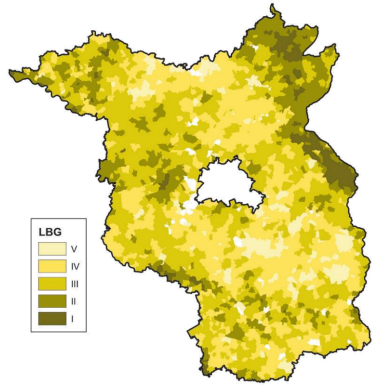
C: silvopastoral system with chicken and black locust

G: traditional fruit orchard meadow

Modelling with AgroforstRechner – data input

Comparison of profitability of arable and wooded areas

- low yield factor of approx. 22 out of 100 points yield classification of area V, the least productive zone.
- Ratio is 92% (arable crop) to 8% (woody crop)
- latest producer price for the woodchip sales of 123.37 € t^{-1}

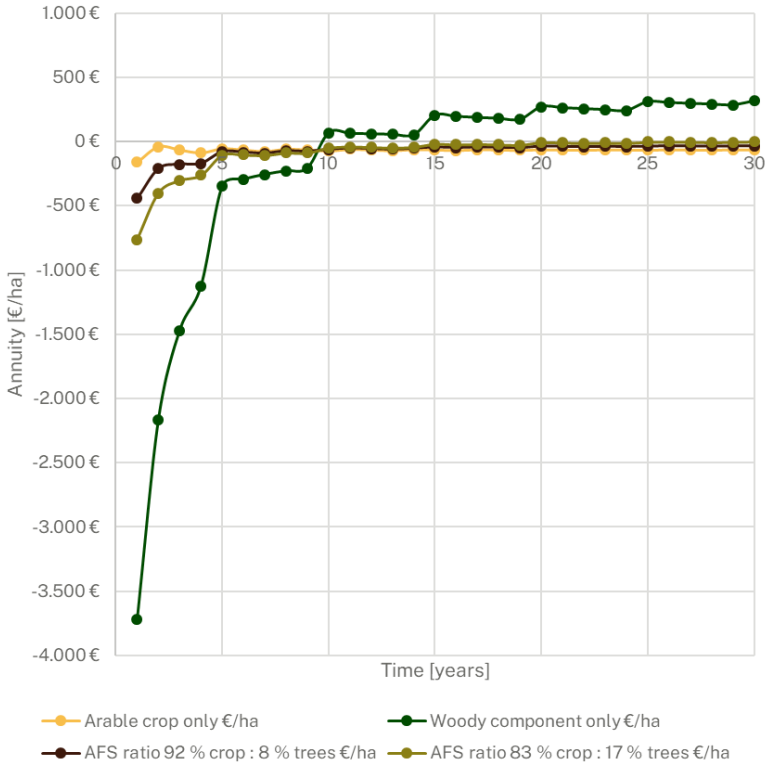


Parameters	Unit	Value
Interest rate	(%)	4
Total running time	(years)	30
Rotation time	(years)	5
Rotations	(number)	6
Woody species	/	Poplar
Earnings enhancement factors (ESF)	/	No
Water content of woodchips on sale	(%)	35
Producer price for woodchips	(€ t^{-1})	123
Field setup using GPS	(€ ha^{-1})	75
Soil preparation	(€ ha^{-1})	250
Planting material costs (9,250 poplar cuttings/ha)	(€ ha^{-1})	1,665
Planting costs (9,250 cuttings/ha)	(€ ha^{-1})	1,165
Initial maintenance costs up to and including year 2	(€ ha^{-1})	520
Harvesting costs	(€ ha^{-1})	660
Option transport costs shredder (> 5 km)	/	No
Reconversion costs	(€ ha^{-1})	1050

Modelling with AgroforstRechner – results

Mean annual margin per component (arable crop/ woody component) and overall AFS

- Arable crop resulted in a mean annual margin of -64 € ha^{-1} across a rotation of 30 years
- Total undiscounted revenue over the period of 15,750 € ha^{-1} and undiscounted costs of 17,666€ ha^{-1}
- Revenue from woodchips was calculated to result in a revenue of 22,708 €, With associated costs of 9,472 € ha^{-1}, this results in a profit of 13,236 € ha^{-1}
- For the AFS (92 % / 8 %) a negative annuity of -34 € ha^{-1} & negative NPV of -4,352 € ha^{-1} obtained
- To obtain a positive annuity for the AFS, the share of the woody component should be increased to 17 %.



Reflections

- The AgroForstRechner offers a wide range of possible inputs and options for a financial assessment of the land management of a farm involving a SRC
- Comparative data can be generated quickly, these can be corrected in more detail without great effort
- Improvements such as more default values for calculating storage costs or options for utilising surplus thermal energy, could be implemented in the future
- But too much detail in a tool can quickly overwhelm the user. More variables often do not lead to significantly higher accuracy.
- On the other hand, each additional generalisation of possible variables can also lead to additional inaccuracies.
- This balancing process is a major challenge in the AgroForstRechner or other tools.

Conclusions

INTACT model:

- Useful decision-support tool
- Only deals with the tree component (does not include crop/livestock components in calculations)
- Tool would benefit from extended simulation period beyond 20 years
- Users highly value pictures and easy-to-follow step-by-step process

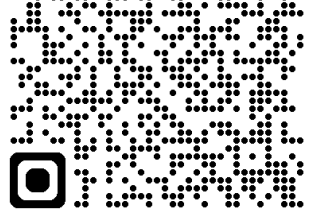
Farm-SAFE model:

- Research tool for understanding finances of crop and silvoarable systems
- Could benefit from (future research)
  - more user-friendly interface and database
  - expansion to account for more than one tree species at a time

AgroForstRechner model:

- Practice oriented tools usable for farmers, planners
- Necessary improvements
  - Multi-language option needed
  - Default values expanded a currently strong regional bias

DigitAF Tools and Data Catalogue



Agroforestry Tools, Data & Projects Catalogues

Tools ▾ Data ▾ Projects ▾

Tools Catalogue

50 tools currently available

4 **new tools** in the last three months

Add yours here!

A big thank you to **Rico Hübner**, **Sarah Carton** and **Bert Reubens** for their recent contributions.

Check out the latest addition: **AgroForstRechner**

Browse all tools

Data Catalogue

31 datasets currently available

2 **new datasets** in the last three months

Contribute here!

Many thanks to **Sonja Kay**, **Paul Burgess** and **Rico Hübner** for contributing with dataset references.

Take a look at the newest addition: **Swiss Agroforestry Tree Monitoring Dataset**

Explore the data catalogue

Thank you!

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