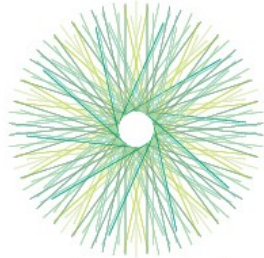


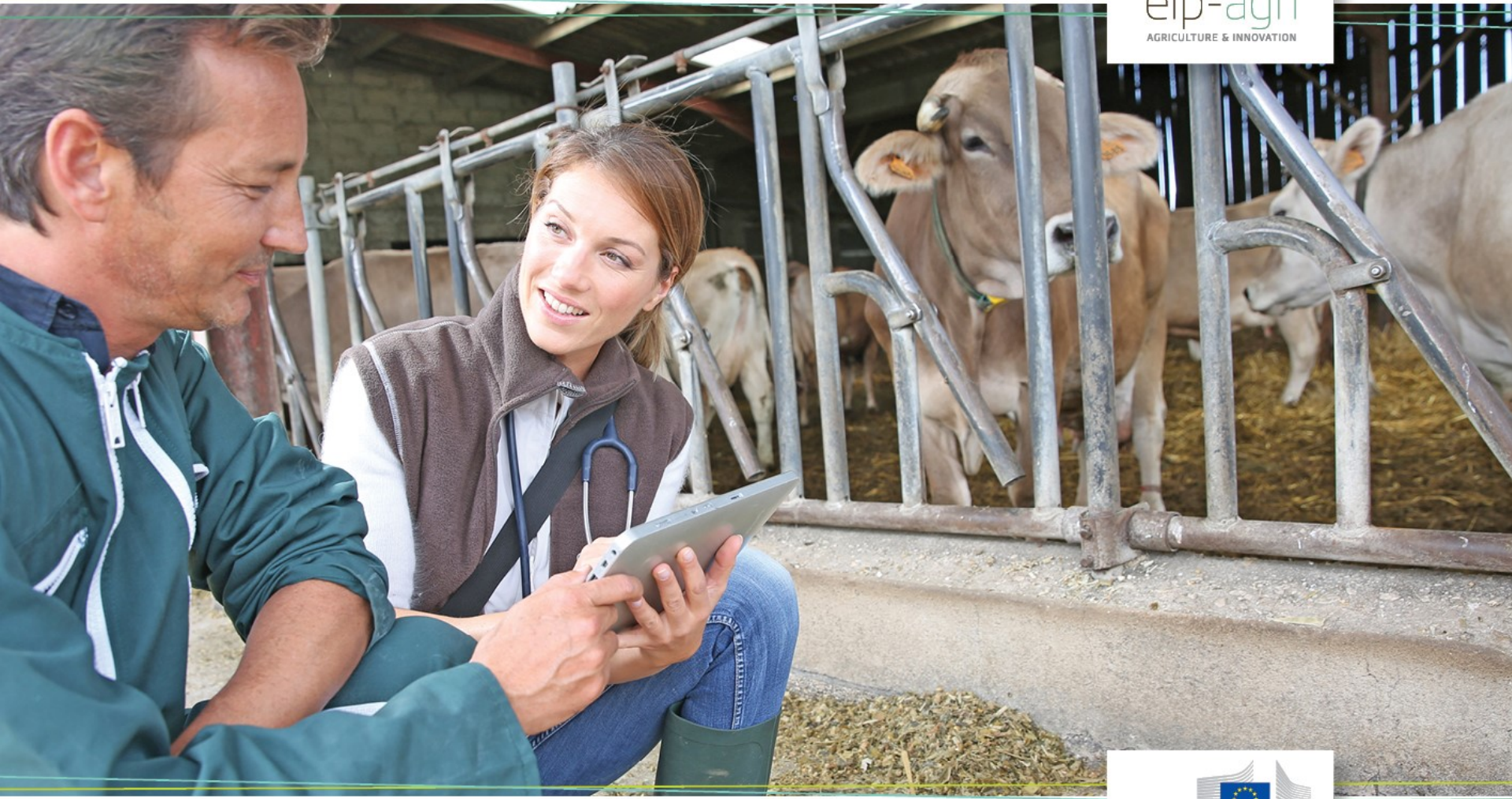
EIP-AGRI Workshop

Tools for environmental farm performance

7 - 8 February 2017 – Zagreb, Croatia



eip-agri
AGRICULTURE & INNOVATION



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EIP-AGRI Workshop 'Tools for environmental farm performance' Tuesday 7 February 2017, Zagreb - Croatia

12:00 – 13:00 Registration and buffet lunch

13:00 – 13:10 Welcome words

- *Iman Boot, DG Agriculture and Rural Development*
- *Krešimir Ivančić, Croatian Ministry of Agriculture*

13:10 – 13:20 Icebreaker

13:20 – 13:40 Introduction to the theme of the workshop by DG AGRI

13:40 – 14:00 Setting the scene by the coordinating experts of the workshop

14:00 – 14:45 Elevator pitches, highlighting the three main reasons for which farmers may use sustainability tools (farm initiative, food chain, legislation)

Consecutive panel reflections

- *Martijn Buijsse, Skylark, The Netherlands*
- ***Vincenzo Angileri, Joint Research Centre, European Commission***
- *Simon Miller, Cool Farm Tool, UK*

14:45 – 15:45 Presentations of existing environmental sustainability tools

- *John Lynch, TEAGASC, Ireland*
- *Romain Dieulot, FNCIVAM, France*
- *Kathryn Green, LEAF, UK*
- *François Lerin, CIHEAM-IAMM & HNV-Link Thematic Network, France*
- *Josien Kapma, Boer & Bunder, The Netherlands*
- *Dóra Mészáros, SMART, Hungary*

15:45 – 16:15 Coffee break

16:15 – 18:00 Break-out sessions

19:00 Networking dinner

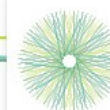
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EIP-AGRI Workshop 'Tools for environmental farm performance' Wednesday 8 February 2017, Zagreb - Croatia

- 09:00 – 09:30 Energiser exercise
Summary of previous day and conclusions by coordinating experts
Janet Dwyer and Marta Pérez-Soba
- 09:30 – 10:30 Break-out session
- What does the ideal tool look like to you?
 - What can you do to make such a tool become a reality?
- 10:30 – 11:00 Coffee break
- 11:00 – 11:45 Break-out session (continued)
- If you would start an EIP-AGRI Operational Group to design the ideal tool, what would be the main problem to solve or opportunity to take, who would be the partners and how would you design the project?
- 11:45 – 12:00 Harvesting
- 12:00 – 12:30 Plenary session
- What happens after the event? Concrete ideas for follow-up actions
- 12:30 – 13:30 Lunch and departure

#EipAgri
#EnvirTools



The European Commission's science and knowledge service

Joint Research Centre

The Ecological Focus Area (EFA) calculator

Vincenzo Angileri,

Joint Research Centre

**EIP workshop,
Zagreb, 7-8 February, 2017**



The EFA calculator

A software tool to support farmers decisions on EFA



Objectives

Calculate the contribution of different farm features to **meeting the 5% EFA target** (including checking implementation rules)

Calculate the **potential impact of different features** on ecosystem services, biodiversity and management

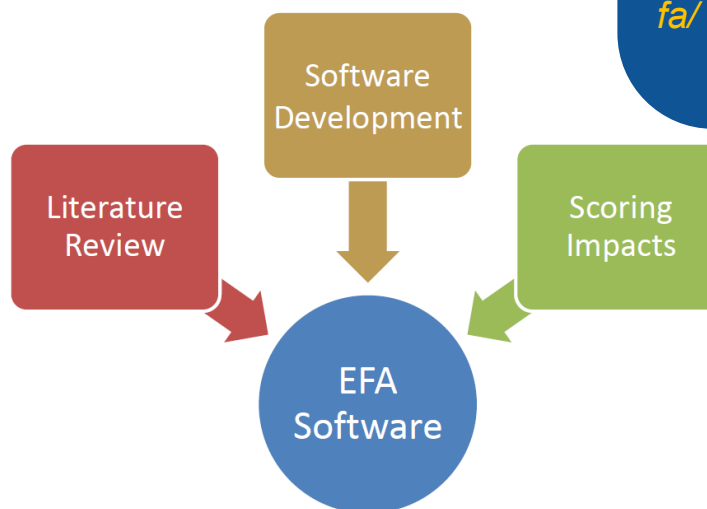
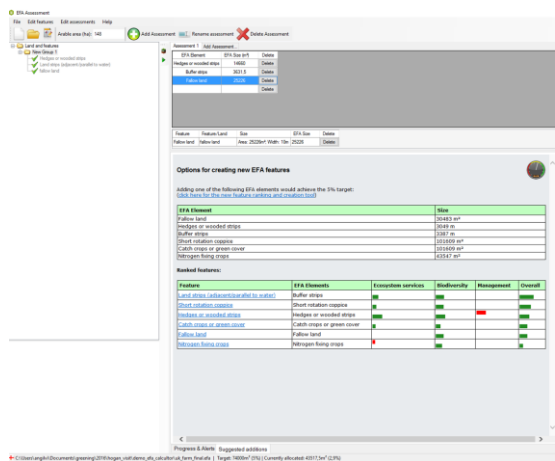
Guide farmers towards features which offer the greatest potential benefits (minimising burdens & maximising benefits)

One-year study commissioned by JRC

Developed in 2015 by:
University of Hertfordshire, UK
(John Tzilivakis et al.)

Full study report published on:
<https://ec.europa.eu/jrc/en/new/s/efa-calculator>

Software can be download at:
<https://sitem.herts.ac.uk/aeru/efa/>



The foundation of the tool



- Examined the knowledge and identified the **key parameters** (and classes) that affect the potential impact of EFA features on **ecosystem services, biodiversity & management**
- Used a relatively simple scoring approach to capture a range of complex information

Ecosystem services:

it uses the Common International Classification of Ecosystem Services (**CICES**) system (Haines-Young & Potschin, 2013)

Impact categories:

- pollination,
- pest control,
- water quality control,
- soil erosion,
- others have also been added where information exists

Biodiversity:

It uses the European Nature Information System (EUNIS) species groups (EEA, 2015)

Management:

Labour only, currently

The image shows a central impact matrix with callout boxes providing details for several parameters. The callout boxes are:

- Adjacent water bodies quality**:

Quality	Score
No adjacent water bodies	0
Good (clear water abundant organisms)	100
Moderate (clear/partially discoloured, some organisms)	67
Poor (Partially discoloured, low number of organisms)	25
Very poor (Discoloured/green, negligible organisms)	0
- Adjacent vegetation structure**:

Structure	Score
Large area (>1ha) of rough grassland, scrub, hedges or woodland	100
Small area (<1ha) of rough grassland, scrub, hedges or woodland	67
Short closely grazed grassland or arable crops	10
Large areas of bare ground	0
- Adjacent wildlife corridors**:

Corridor Type	Score
Diverse and complete linear features	100
Uniform linear features with gaps	50
No linear features	0
- Ground cover (fallow)**:

Cover Type	Score
None (bare soil)	0
Natural regeneration	67
Sown bird seed mix	5
Sown wildflower	35
Sown grass only	67
- Dist. density of adjacent water bodies**:

Density	Score
>1.3 per km ²	100
1 per km ²	67
0.5 per km ²	50
0.1 per km ²	10
None	0

Impact matrix of fallow land on amphibians

The functions

1

The farmer enters the EFA elements that are already present in the farm

Fallow land

Fallow land is arable land where there is no production. This can be bare ground, but can also be where, for example, wildflower mixtures have been sown.

An individual area of fallow land is a distinct block of land, which is fallow, and is distinguishable from other adjacent features. The feature can be an existing feature on the farm or a new feature that will be created on the farm. In the first instance it is recommended that you start with existing features (you can always add new features after some assessments and analysis have been undertaken).

Ecological Focus Area (EFA) Details:

Can be used for the following EFA elements:

EFA Element	Rules
Fallow land	Dimension rules Minimum width: 2m Minimum area: 100m ²

3

The software calculates the progress on the 5% target

Assessment 1 Add Assessment

EFA Element	EFA Size (m ²)	Delete
Hedges or wooded strips	14650	Delete
Buffer strips	36315	Delete
Fallow land	25226	Delete

Feature	Feature/Land	Size	EFA Size	Delete
Fallow land	fallow land	Area: 25226m ² Width: 10m	25226	Delete

Progress towards EFA target and alerts on features selected

Target: 74000m² (5%) | Currently allocated: 43517.5m² (2.9%)
Land not in production: 3.5 ha (2.4% of arable area)

Additional features need to be declared as EFA to reach the 5% target, [click here to view suggestions](#).

2

The software gives options to reach the 5% and provides impacts of the EFA types

Options for creating new EFA features

Adding one of the following EFA elements would achieve the 5% target: [click here for the new feature ranking and creation tool](#)

EFA Element	Size
Fallow land	30483 m ²
Hedges or wooded strips	3049 m
Buffer strips	3387 m
Short rotation coppice	101609 m ²
Catch crops or green cover	101609 m ²
Nitrogen fixing crops	43547 m ²

Ranked features:

Feature	EFA Elements	Ecosystem services	Biodiversity	Management	Overall
Land strips (adjacent/parallel to water)	Buffer strips	■	■	■	■
Short rotation coppice	Short rotation coppice	■	■	■	■
Hedges or wooded strips	Hedges or wooded strips	■	■	■	■
Catch crops or green cover	Catch crops or green cover	■	■	■	■
Fallow land	Fallow land	■	■	■	■
Nitrogen fixing crops	Nitrogen fixing crops	■	■	■	■

4

The impact of the whole farm

EFA Calculator Report Builder

Arable area: 148 ha

Group	Name	Type of feature	Size
New Group 1	Hedges or wooded strips 1	Hedges or wooded strips	Length: 14650m, Width: 5m
New Group 1	Land strips (adjacent/parallel to water)	Land strips (adjacent/parallel to water)	Length: 403.5m, Width: 10m
New Group 1	Catch crops or green cover 1	Catch crops or green cover	Area: 795m ²
New Group 1	Nitrogen fixing crops 1	Nitrogen fixing crops	Area: 43517m ²
New Group 1	Fallow land	Fallow land	Area: 25226m ² , Width: 10m

Export options:

- Water conditions

Overview of impacts

Ecosystem services: The positive impacts are relatively low

- Lifecycle maintenance, habitat and gene pool protection
- Pest and disease control

There are also some negative impacts, which are relatively low

- Water conditions

Biodiversity: The positive impacts are relatively low. The negative impacts are relatively high

- Manmade, all
- Invertebrates, all
- Rich, all

Management: There are some negative impacts, which are relatively low

- Labour

Impacts

Ecosystem services



is activated in UK - England
or green cover
wooded strips
ing crops
in coppice



Conclusions

A tool not only to calculate the 5% EFA

Twofold aim:

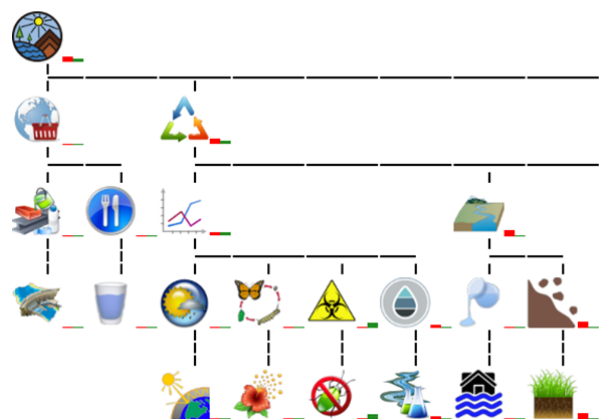
raising awareness (used by farmers/advisors)
assess farm environmental performance

There is scope to improve the knowledge base, especially for management (currently, integration of results from QuESSA-Quantification of Ecological Services for Sustainable Agriculture project)

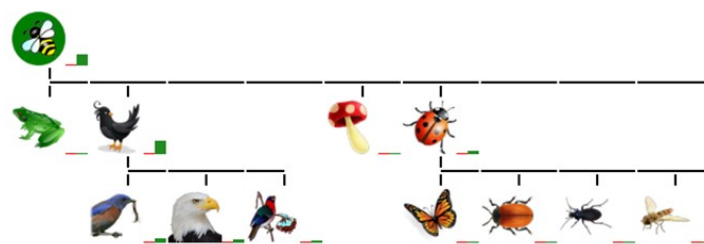
Promote the tool use and test it in different farm types

Tools, like the EFA calculator, ideally need to seamlessly integrate with other applications, tools and services that farmers use on a regular basis

Ecosystem services



Biodiversity



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Three elevator pitches & reflections from a panel

SPEAKERS:

- **Martijn Buijsse - Skylark, The Netherlands**
- **Vincenzo Angileri - Joint Research Center, European Commission**
- **Simon Miller - Cool Farm Tool, UK**

PANEL:

Farmers

Alan Jagoe

Aila Riikonen

Valentin Opfermann

Environmental organisations

Gijs Kuneman

Alasdair Sykes

Vyara Stefanova

EIP-AGRI Workshop 'Tools for environmental farm performance'

All presentations & background
documents are available
on the [event webpage](#).

www.eip-agri.eu

