

# High and Low iLUC Risk Biofuels – Implications for Producers and How to Determine Low iLUC Risks

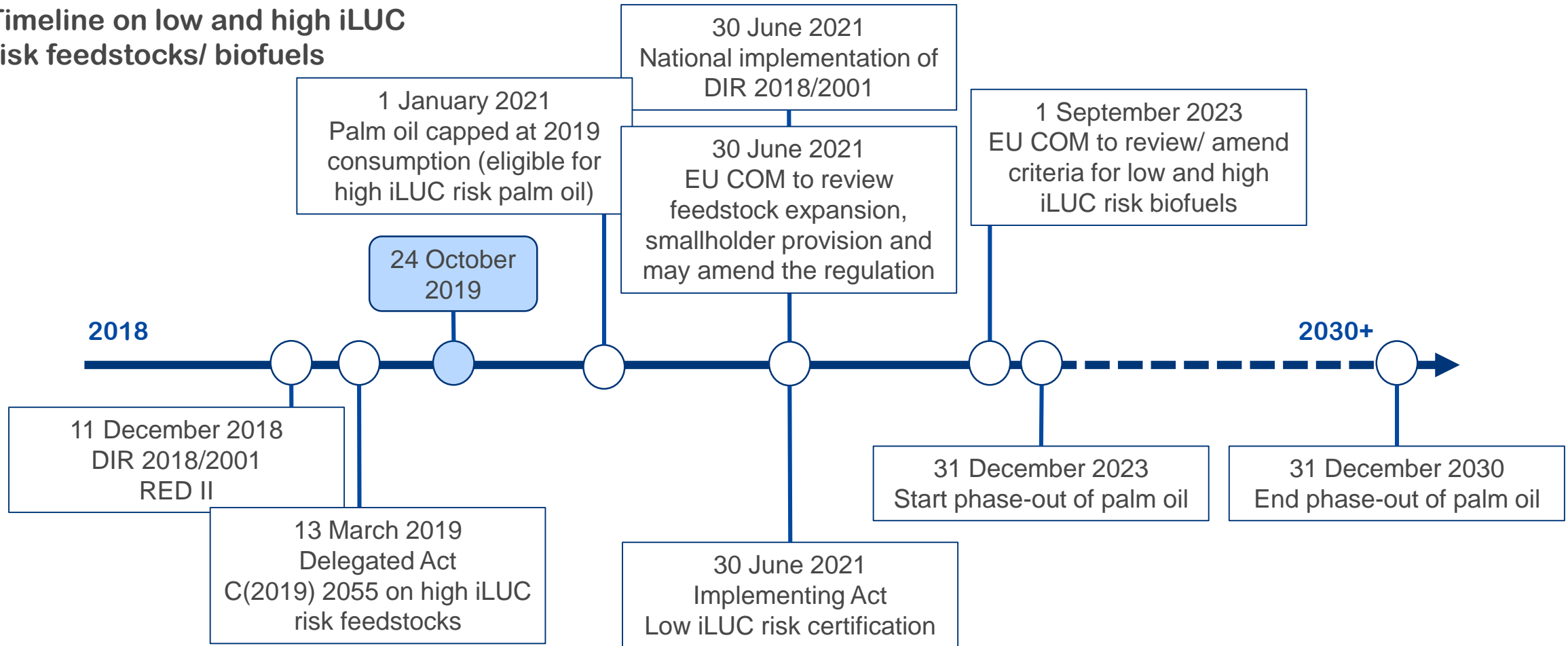
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Andreas Feige, ISCC System GmbH

ISCC Technical Committee Southeast Asia, Jakarta, 24 October 2019

# The RED II will limit the use of palm oil as feedstock for biofuels from 2024 onwards – EU Member States shall implement latest by mid 2021, review of high/low iLUC criteria before end of 2023

## Timeline on low and high iLUC risk feedstocks/ biofuels





Based on the methodology and the data being used for the determination, palm oil currently is the only feedstock to be classified as a high iLUC risk in the Delegated Act

### Delegated act - high iLUC risk feedstocks

■ For the purpose of determining the high iLUC risk feedstock for which a significant expansion of the production area into land with high-carbon stock is observed, the **following cumulative criteria** shall apply:

- a) **the average annual expansion of the global production area of the feedstock since 2008 is higher than 1% and affects more than 100,000 hectares**
- b) **the share of such expansion into land with high-carbon stock is higher than 10%**

	Average annual expansion of production area since 2008 (kha)	Average annual expansion of production area since 2008 (%)	Share of expansion into land referred to in Article 29(4)(b) and (c) of Directive (EU) 2018/2001	Share of expansion into land referred to in Article 29(4)(a) of Directive (EU) 2018/2001
<b>Cereals</b>				
Wheat	-263,4	-0,1%	1%	-
Maize	4027,5	2,3%	4%	-
<b>Sugar crops</b>				
Sugar cane	299,8	1,2%	5%	-
Sugar beet	39,1	0,9%	0,1%	-
<b>Oil crops</b>				
Rapeseed	301,9	1,0%	1%	-
<b>Palm oil</b>	<b>702,5</b>	<b>4,0%</b>	<b>45%</b>	<b>23%</b>
Soybean	3183,5	3,0%	8%	-
Sunflower	127,3	0,5%	1%	-

➤ **Palm oil** is the only feedstock that falls under the definition of **high iLUC risk feedstocks**

Low iLUC risk palm feedstock shall comply with RED/RED II sustainability requirements and requires in addition Low iLUC risk certification



Palm producer

*High iLUC risk palm*

**Fulfils RED/ RED II sustainability requirements**

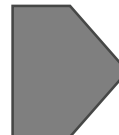


- 2021 – 2023: Capped at 2019 level
- 2024 – 2030: Phase out; gradually decreasing to 0%

- Gradually decreasing market
- No market access for high iLUC palm after 2030

*Low iLUC risk palm*

**Fulfils RED/ RED II sustainability requirements AND Low iLUC risk certified**



2021 – 2030: max 7% food and feed crops

- Market access for Low iLUC risk market for palm



# Low iLUC risk biofuels must be obtained through the implementation of additionality measures

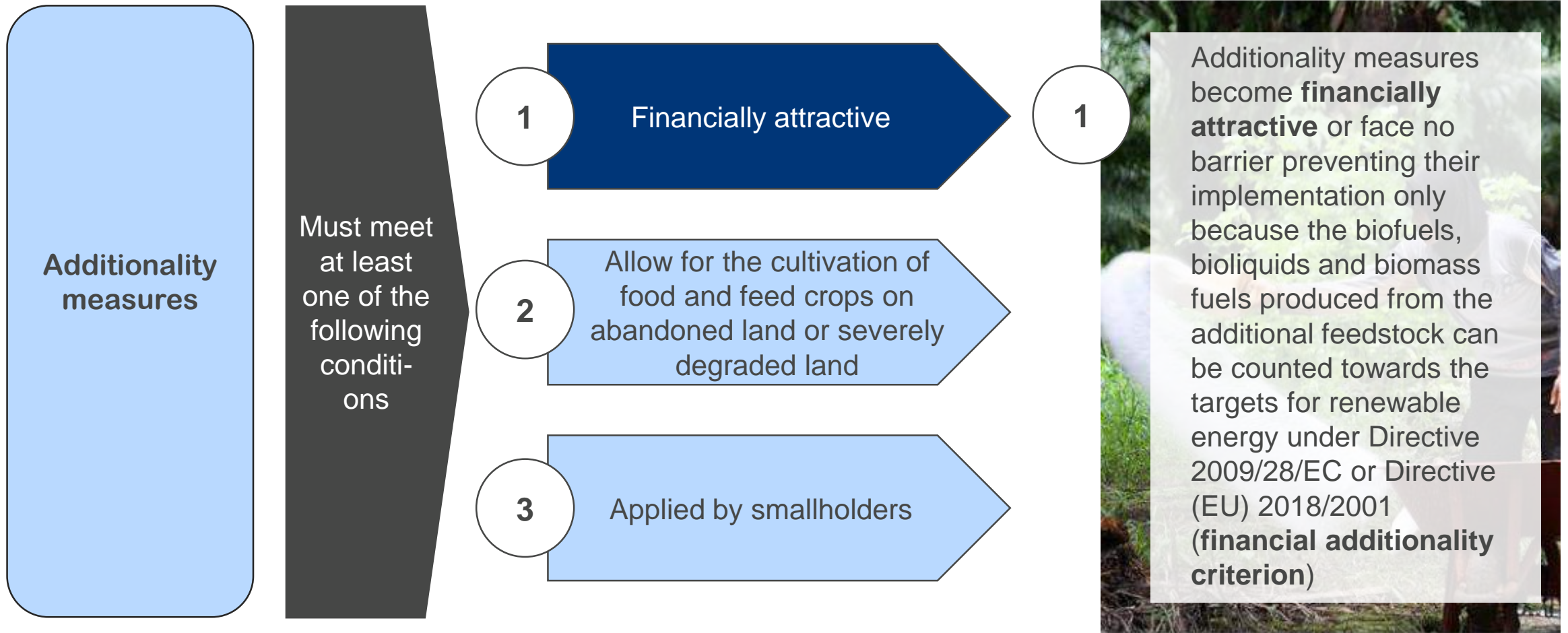
## General criteria for certification of low iLUC risk biofuels, bioliquids and biomass fuels

1. **Comply** with the **sustainability and greenhouse gas emissions saving criteria** set out in Article 29 of Directive (EU) 2018/2001
2. Production from **additional feedstock** obtained through **additionality measures**
3. The **evidence** needs to be **duly collected and thoroughly documented** by the relevant economic operators

**Additionality measures:** any improvement of agricultural practices leading, in a sustainable manner, to an increase in yields of food and feed crops on land that is already used for cultivation; and any action that enable the cultivation of food and feed crops on unused land, including abandoned land



Additionality measures for Low iLUC risk palm must meet at least one out of three conditions. One is that the measure must become “financially attractive” for the producer....







Alternatively, low iLUC biofuels can be achieved through additional feedstocks from agriculture

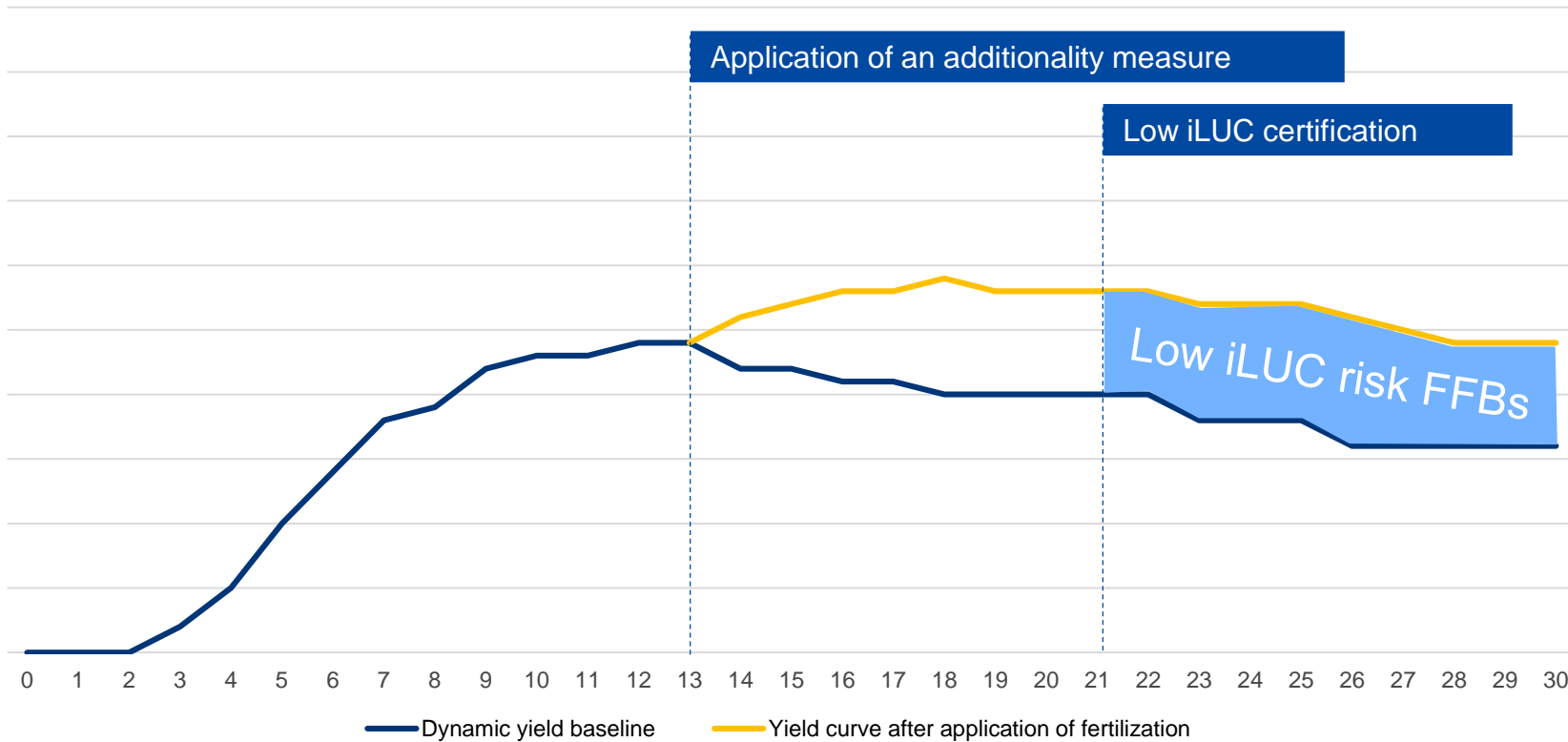
### Additional feedstock from agriculture

- **Additional feedstock** means the additional amount of a food and feed crop produced in a clearly delineated area that is the **direct result of applying an additionality measure**
- **Additionality measures** means any **improvement of agricultural practices** leading, in a sustainable manner, to an **increase in yields** of food and feed crops on land that is already used for cultivation
- The additional feedstock must be calculated compared to a **dynamic yield baseline**

# Low iLUC measures have to be applied less than 10 years before certification

## Additional feedstock from palm plantations

Dynamic yield baseline required

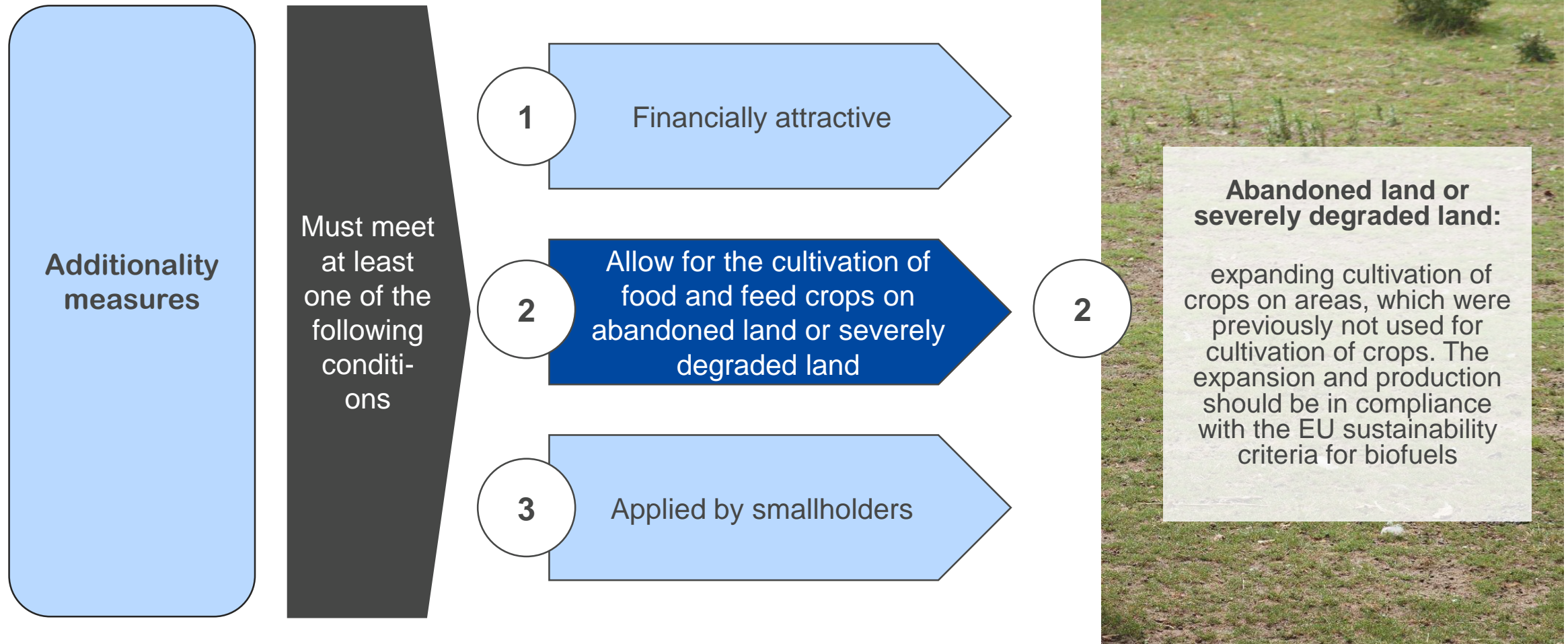


### Framework conditions:

- Measures have been applied less than 10 years before certification
- Financially attractiveness criteria is met
- evidence is duly collected and thoroughly documented
- Only the additional quantities are eligible as Low iLUC risk feedstock



..., another condition is that palm is cultivated on abandoned or severely degraded land...







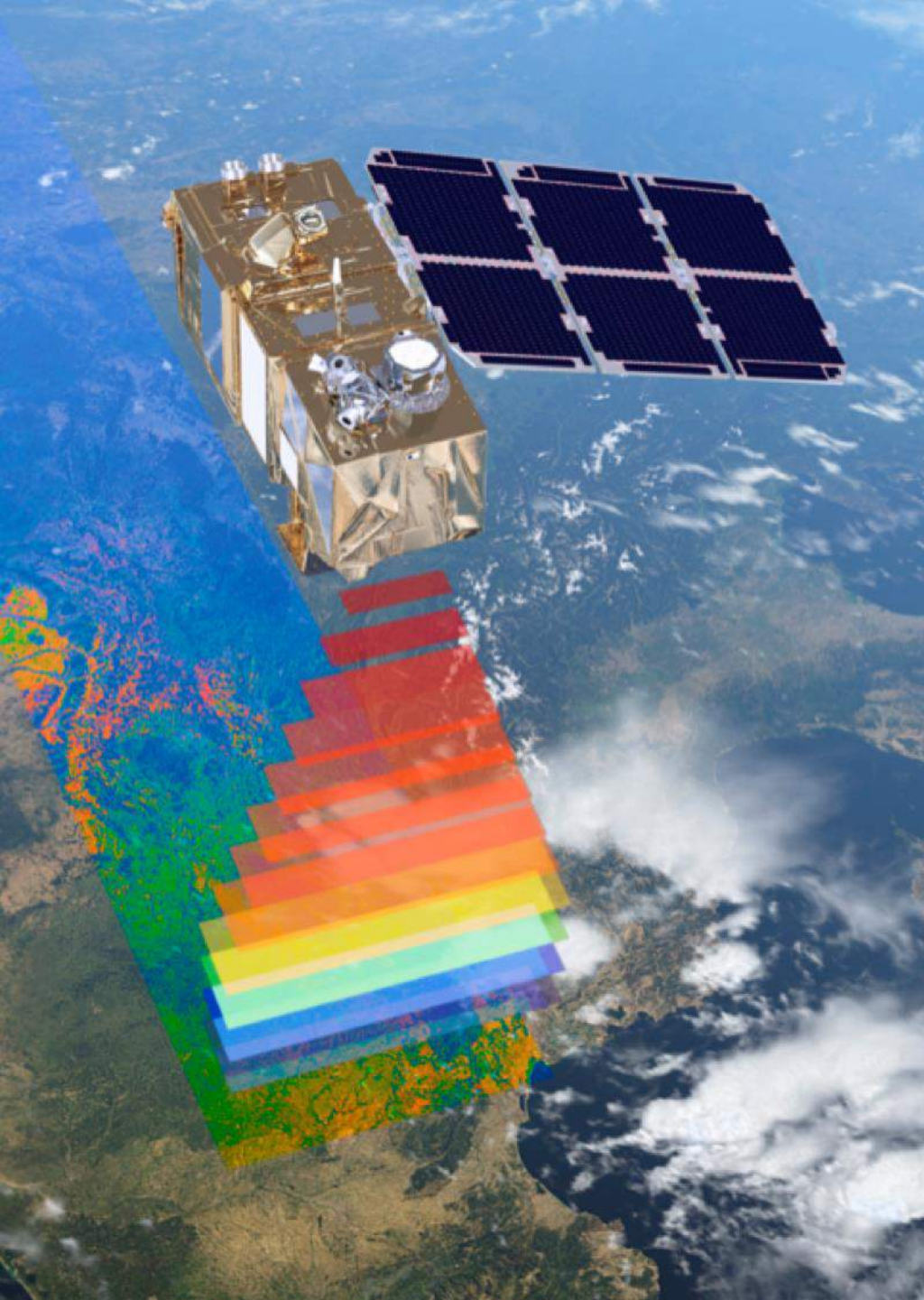
# Definition of abandoned and severely degraded land

## Abandoned land or severely degraded land

### Definitions:

- **Abandoned land**: *unused land, which was used in the past for the cultivation of food and feed crops but where the cultivation of food and feed crops was stopped due to biophysical or socioeconomic constraints*
  - **Unused land**: *areas which, for a consecutive period of **at least 5 years** before the start of cultivation of the feedstock used for the production of biofuels, bioliquids and biomass fuels, **were neither used for the cultivation of food and feed crops, other energy crops nor any substantial amount of fodder for grazing animals***
- **Severely degraded land**: *land that, for a significant period of time, has either been significantly **salinated** or **presented significantly low organic matter content** and has been severely eroded*





# Requirements for certification of low iLUC feedstocks from abandoned land

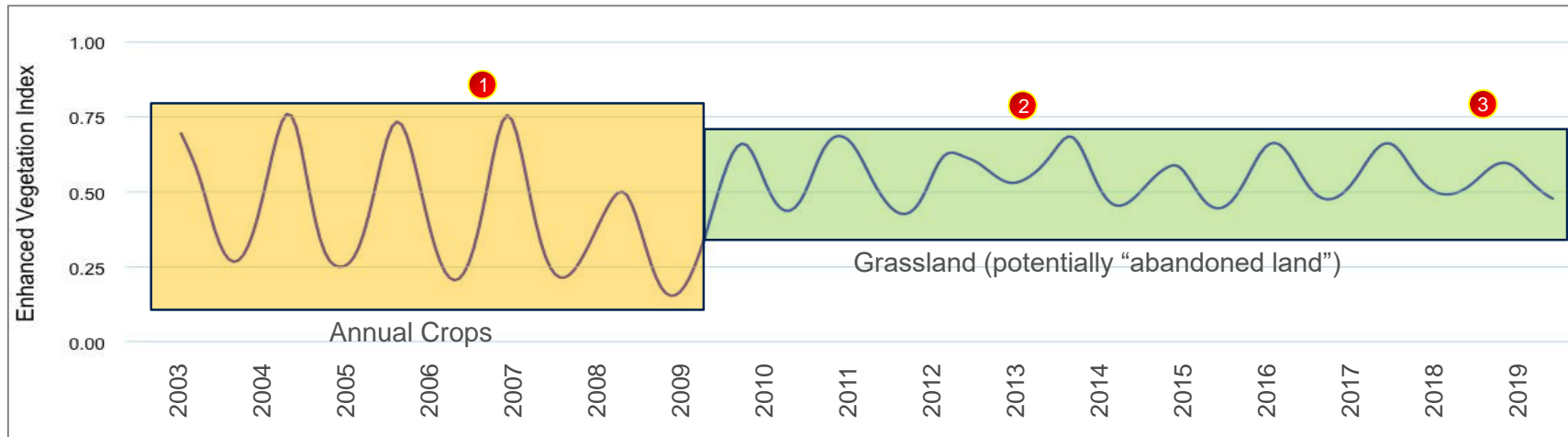
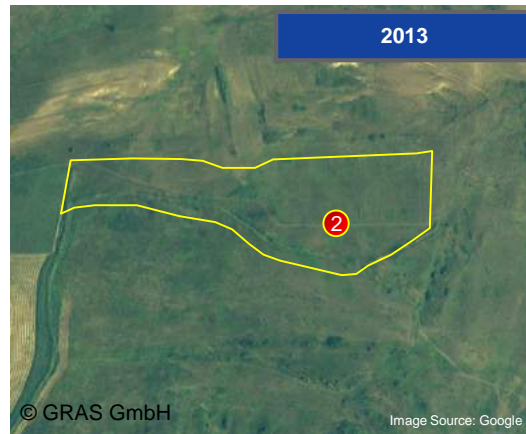
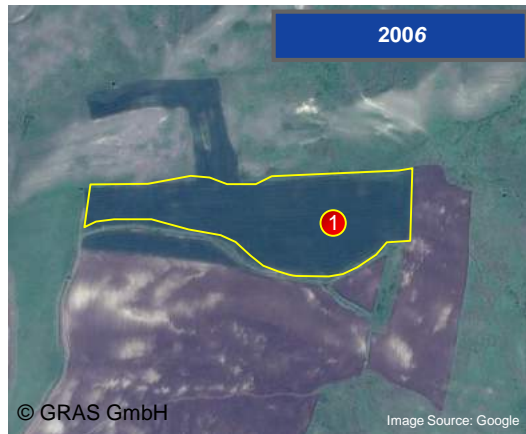
## Abandoned land or severely degraded land

### Certification requirements:

- The land has to be in compliance with the **sustainability criteria** set out in Article 29 of Directive (EU) 2018/2001
  - The land is in compliance with the definition of **abandoned land and severely degraded land** as provided in the delegated act
  - The measures taken on the abandoned land to re-start cultivation have not been taken later than **10 years** before the **low iLUC certification** of the land
- **GRAS** can support the verification of abandoned land and sustainability criteria

# Example of the examination of the vegetation profile and image interpretation of an area

## Abandoned land or severely degraded land



- The vegetation profile and image interpretation provides information on:
  - Actual and previous use of the land
  - Potentially “abandoned land”
- Example:
  - This **land** was detected through the **heatmap** as **potentially abandoned** since **2009**
  - If the abandoned status is confirmed on-site and the sustainability criteria are verified, **measures** to re-start cultivation in 2019 could lead to the production of **low iLUC feedstocks**





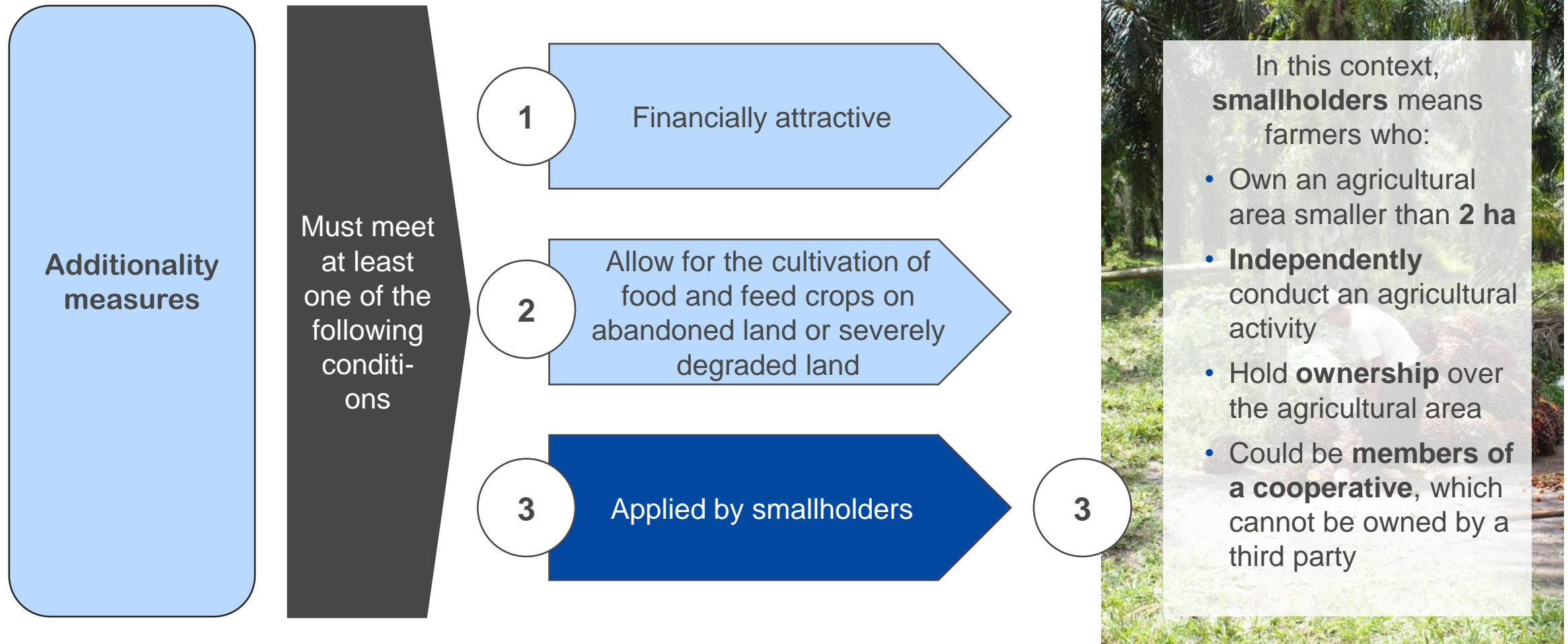
# Low iLUC risk certification will require evidences confirming the abandoned land status

## Abandoned land or severely degraded land

Several evidences has to be provided to the auditor during such an audit:

- 1. Potentially abandoned status** of the land before the re-start of cultivation
  - see GRAS detailed analysis last page
- 2. Biophysical and socioeconomic constraints**, for which food and feed production was stopped
  - E.g. reports from independent experts
  - Evidence/documentation (e.g. soil analysis)
- 3. Compliance with sustainability criteria**
  - Measures not taken yet: On-site verification by experts (e.g. biodiversity check), high resolution GRAS analysis
  - Measures already taken: E.g. reports from independent experts, HCV analysis)

...or that palm is cultivated by smallholders





For the palm industry it will be important to anticipate the RED II market implications – however, this will require further clarification of definitions and criteria



Market Implication

- Without further clarification from the EU COM, e.g. smallholder determination, the future potential of low iLUC risk palm can not be determined
- Available data on independent smallholders and abandoned land currently not sufficient
- Clarification on additionality measures needed, e.g. recognition of re-planting (high potential) as relevant measure
- Potential of alternative GAP measures (e.g. fertilizer management) difficult to determine and verify in short- to mid-term
- Palm producers need clarification in order to prepare for the future market





Many thanks for your attention!

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Andreas Feige, ISCC System GmbH  
Hohenzollernring 72, 50672 Cologne, Germany  
Email: [feige@iscc-system.org](mailto:feige@iscc-system.org)

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