

# Sustainability certification schemes – state of the art

## REDcert RFNBO scheme overview

practical oriented | reliable | efficient



# Overview of our schemes



**recognized by the  
European Commission**



**Food**



**Feed**



**Chemistry**



**voluntary scheme, positively benchmarked by SAI (food/feed)  
constant development hand in hand with industry**

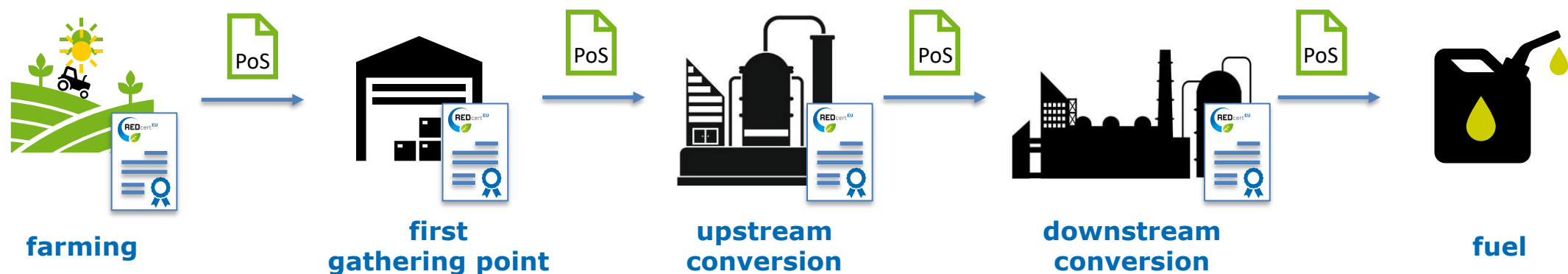


**Transfer of concepts and expertise to  
other industrial sectors**

# Chain of custody certification



- Certification of each operator ('interface') of a value chain
- Guarantees compliance with the scheme specific requirements (e.g. tracing sustainability characteristics)
- Based on legal acts or voluntary initiatives
- Already implemented in different industries and value chains



# Tracing of sustainable material along the chain of custody



- Different chain of custody models defined in ISO 22095:2020

## Book & claim



Not allowed under the RED

Decoupling material and characteristics

## Mass balance



Input/output balance and attribution of sustainability

## Controlled blending



Input/output balance and knowing sustainable proportion

## Identity preservation



No mixing of materials with varying characteristics

# Scope of RED



	RED I		RED II		
	bf	bl	bf	bl	bmf
agricultural biomass	X	X	X	X	X
woody biomass from forest					X
waste & residues	X	X	X	X	X
other carbon sources			X		

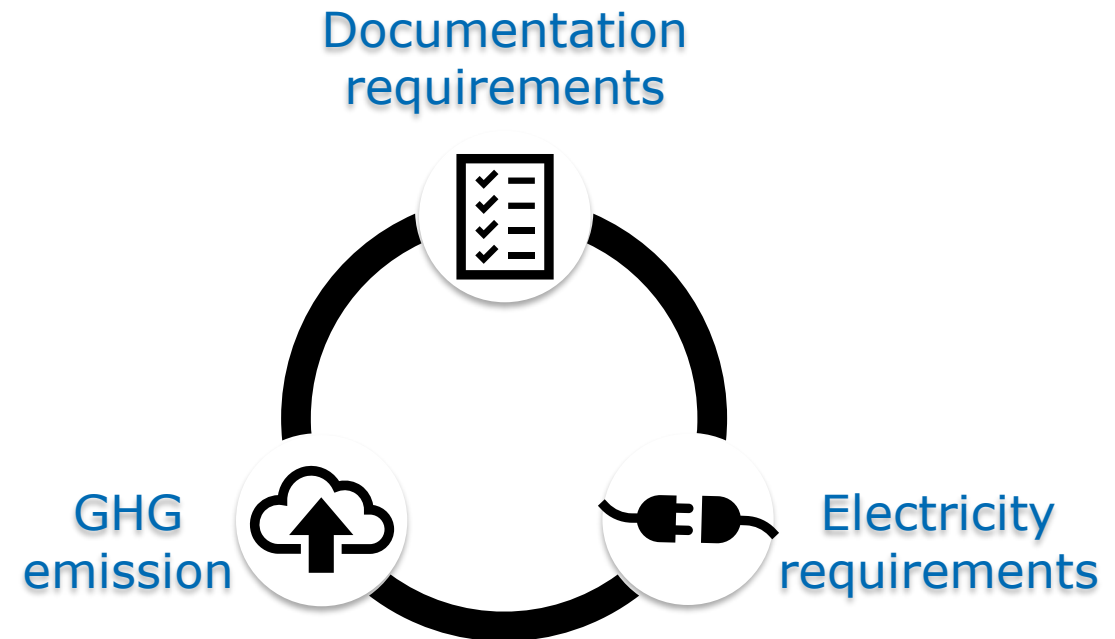
RFNBO / RCF

bf	biofuel				
bl	bioliquid				
bmf	biomass fuel				

# Directive (EU) 2018/2001 (RED II)

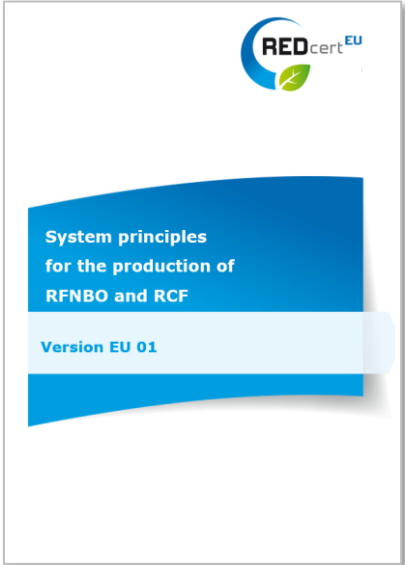
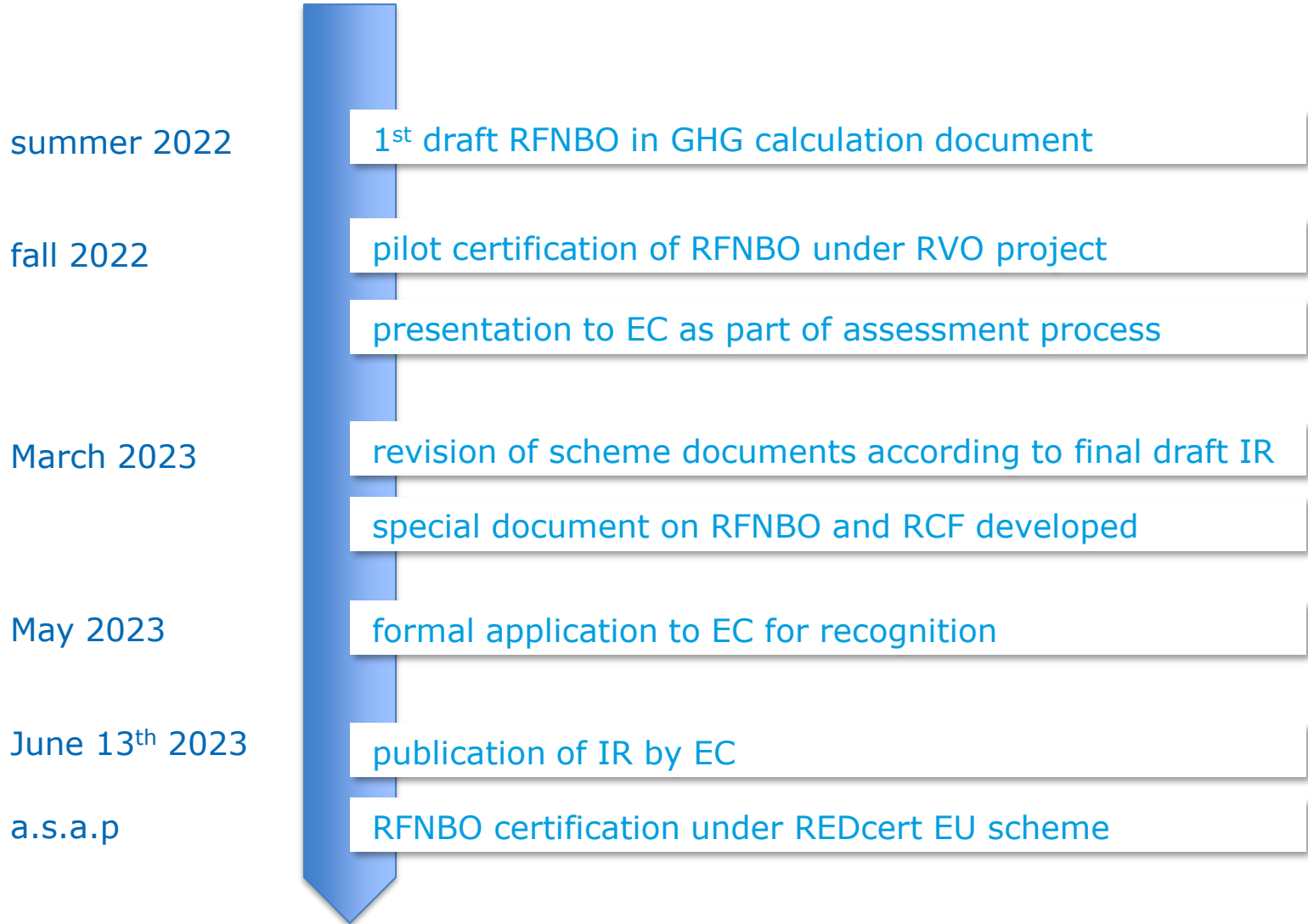


- Defines requirements for:
  - biofuels, bioliquids and biomass fuels
  - recycled carbon fuels (RCF)
  - renewable liquid and gaseous transport fuels of non-biological origin (RFNBO)
- specific requirements for RFNBO production are to be defined by the EU-Commission by a **Delegated Act**\*



\* final draft to be formally adopted and published on June 13<sup>th</sup> 2023

# RFNBO under the REDcert EU scheme



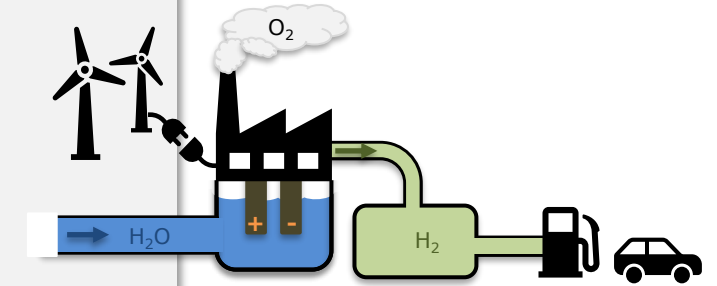
# RFNBO/RCF REDcert-EU scheme document



*"Aiming for a practical approach for implementing regulations beside those determined by the EC IR"*

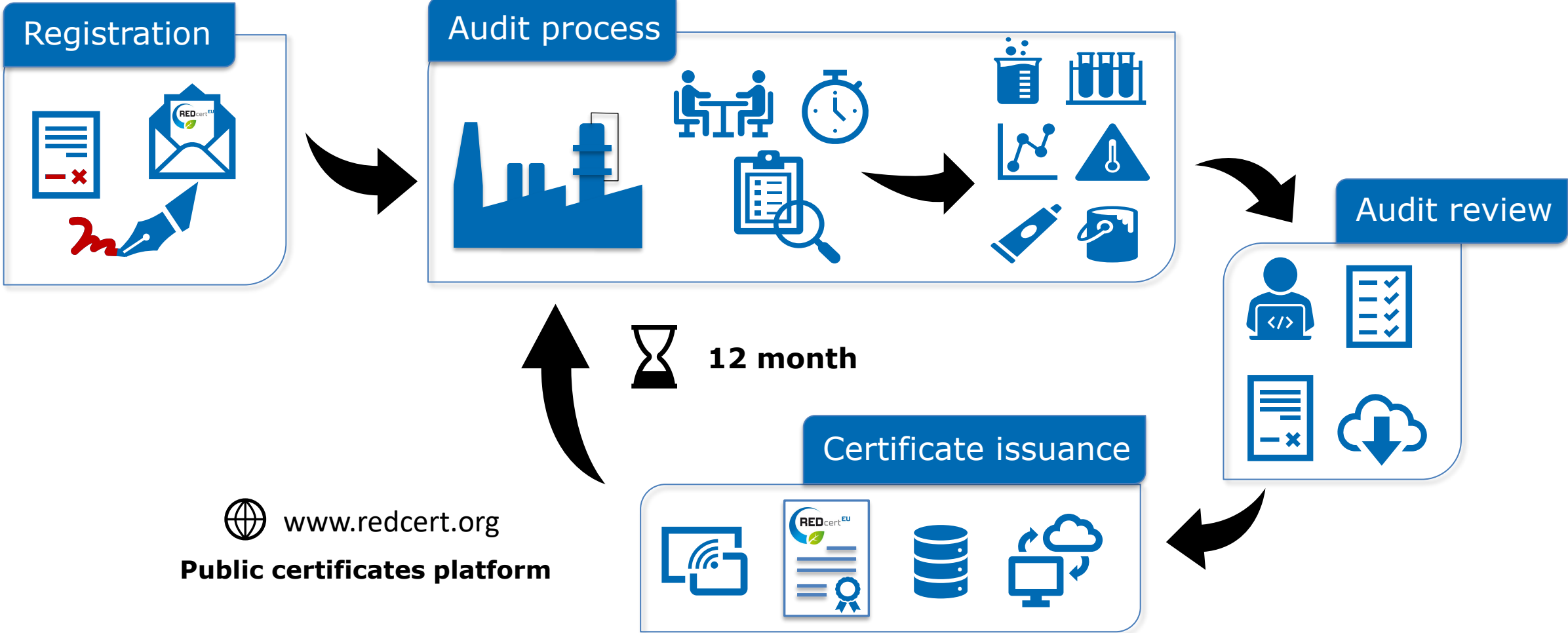
1	Introduction
2	Terms and definitions
3	Basic requirements
3.1	Requirements on the production RFNBO
3.2	Requirements on the production RCF
3.3	Requirements on the CO <sub>2</sub> source
4	Requirements on mass balancing
5	Requirements on complete renewable electricity
5.1	...from dedicated connections
5.2	...from electricity grid
5.2.1	Share of renewable electricity $\geq 90\%$
5.2.2	PPAs and emission factor of electricity $\leq 18$ gCO <sub>2</sub> eq/MJ
5.2.3	PPAs and emission factor of electricity $> 18$ gCO <sub>2</sub> eq/MJ
5.2.4	Electricity from the grid during a balancing group interval
5.3	Requirements on additionality
5.4	Requirements on the timely correlation

5.5	Requirements on geographical correlation
5.6	Requirements on documentation
6	Calculation of total emissions from the use of the fuel
6.1	Calculation period
6.2	Emissions from input material (ei)
6.3	Emissions from static input material (estarr)
6.4	Emissions from elastic input material (eelastic)
6.5	Emissions from existing use (eex-use)
6.6	Emissions from use electricity (ei or. ep)
6.7	Emissions from processing (ep)
6.8	Emissions from the combustion of the fuel – end use (eu)
6.9	Emissions from transport and distribution (etd)
6.10	Emission savings from capture and geological storage of CO <sub>2</sub> (eccs)
6.11	Multiple Output process and rules on allocation of GHG emissions
6.12	Determination of the GHG saving potential by the last interface
7	Requirements on neutral inspections
8	Annex





# Certification process



# ...what about costs...?



## Costs related with REDcert-EU certification

### 1. Internal costs

Implementation (mass balance, ERP-system, GHG calculation, training...)

**individual**

### 2. External costs

A. Certification costs (to be negotiated directly with the CB)

**individual**

approx. 1-2 audit days plus overhead...

**~2-3.500 EUR**

B. 1x p.a. system fees (according to REDcert fee table)

- basic fee

**275 EUR**

- Number of sites included

**55 – 30 EUR/site**

- Quantity of biomass/biofuel

**0,03 EUR/t** (t.b.d)

# Thanks for listening!



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