Abfallbrennstoffe: Notwendigkeit und Besonderheiten bei derZertifizierung

27.04.2023, DEHSt- nformationsveransta tung „Biomasse im ETS“

be RESPONSIBLE I be SUSTAINABLE I be SURE

Two strong players joining forces

SUSTA NABLE RESOURCES Verification Scheme GmbH (SURE) was founded on March 27th, 2019 as a imited iabi ity company and entered in the commercia register on May 24th, 2019. The two shareho ders are:

Bioenergy Europe

- ✓ EU umbrella association with 4 associations and 40 companies as members
- ✓ Provides market intelligence and knowledge
- ✓ Network of bioenergy stakeholders enabling stakeholder dialogue
- ✓ Consultation with policy makers and industry

Renewab e Energy Directive certification

- ✓ Initiative of 2 associations in the biofuel sector
- ✓ More than .800 scheme users
- ✓ 25 certification bodies recognized
- ✓ Recognized by the European Commission

Full scope certification

SURE defines criteria for the certification of

- Forestry Biomass
- Agricultural feedstock
- Waste & Residues
- Biomass plants
- Biogas plants
- Electricity
- Heating & Cooling
- Biofuels

Key requirements

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- ✓ Sustainable production of biomass (fuels) and energy
- ✓ Minimum GHG-Mitigation (H&E, only from starting date of operation in 2021)
- ✓ Traceability and mass balancing
- ✓ Checks of plausibility (e.g. energy produced vs. biomass fuel used)
- ✓ Verification of Proofs of Sustainability (e.g. in NABISY)

Scheme principles


Scope and bas c scheme equ ements


Integ ty Management


Neut a Inspect on


Remote Aud ts


Def n t ons


GHG Ca cu at on


Mass ba ance


P oduct on of ag cu tu a b omass


P oduct on of fo est b omass


R sk assessment


P oduct on of waste and es dues f om b omass


Use, p ocess ng, t ad ng and conve s on

https://sure system.org/en/documents.html

FACTS & FIGURES

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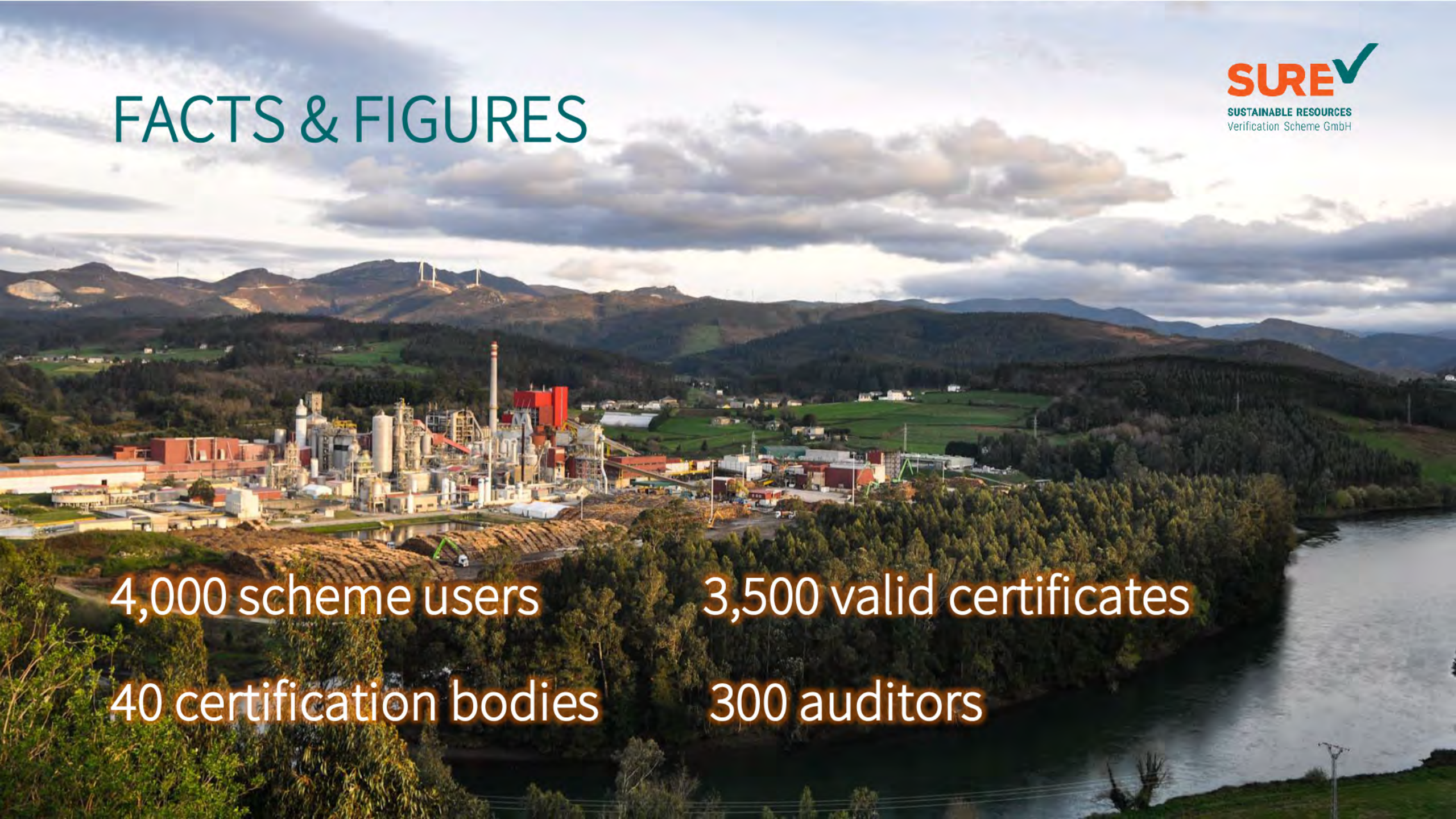


4,000 scheme users

3,500 valid certificates

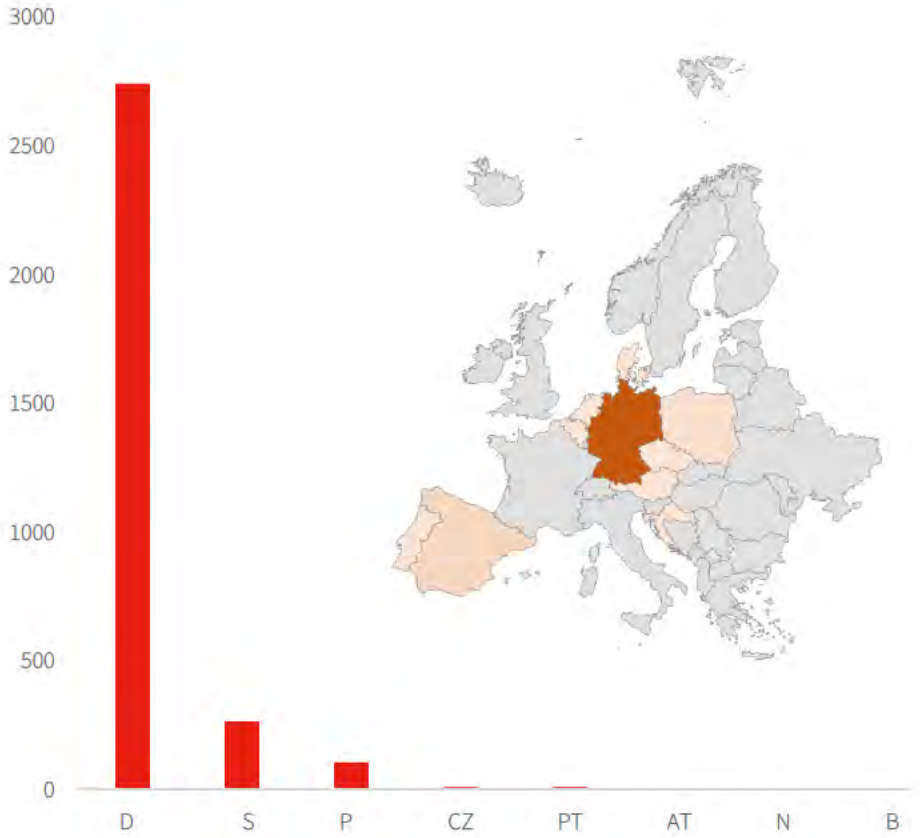
40 certification bodies

300 auditors

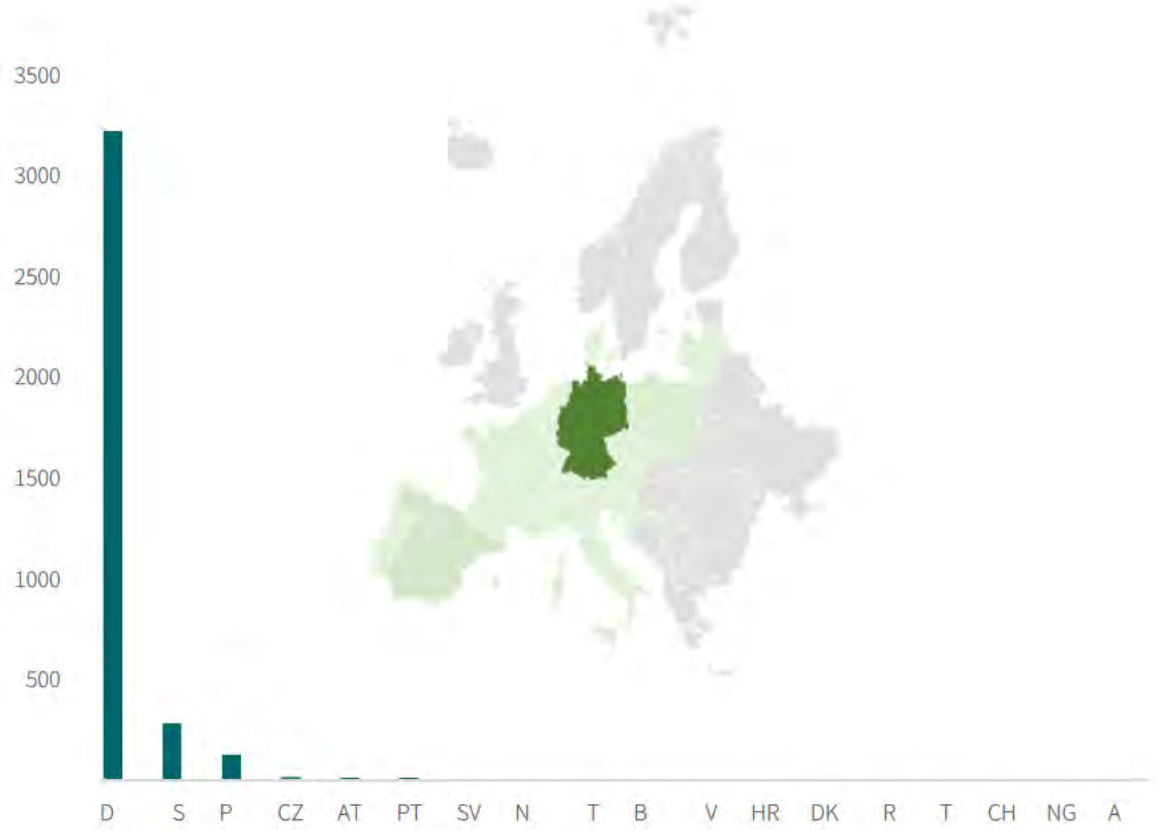
Where stands SURE today?

SUSTAINABLE RESOURCES Verification Scheme GmbH

Distribution of valid certificates in Europe (as of January 2023)



Distribution of system participants in Europe (as of January 2023)



Where stands SURE today?

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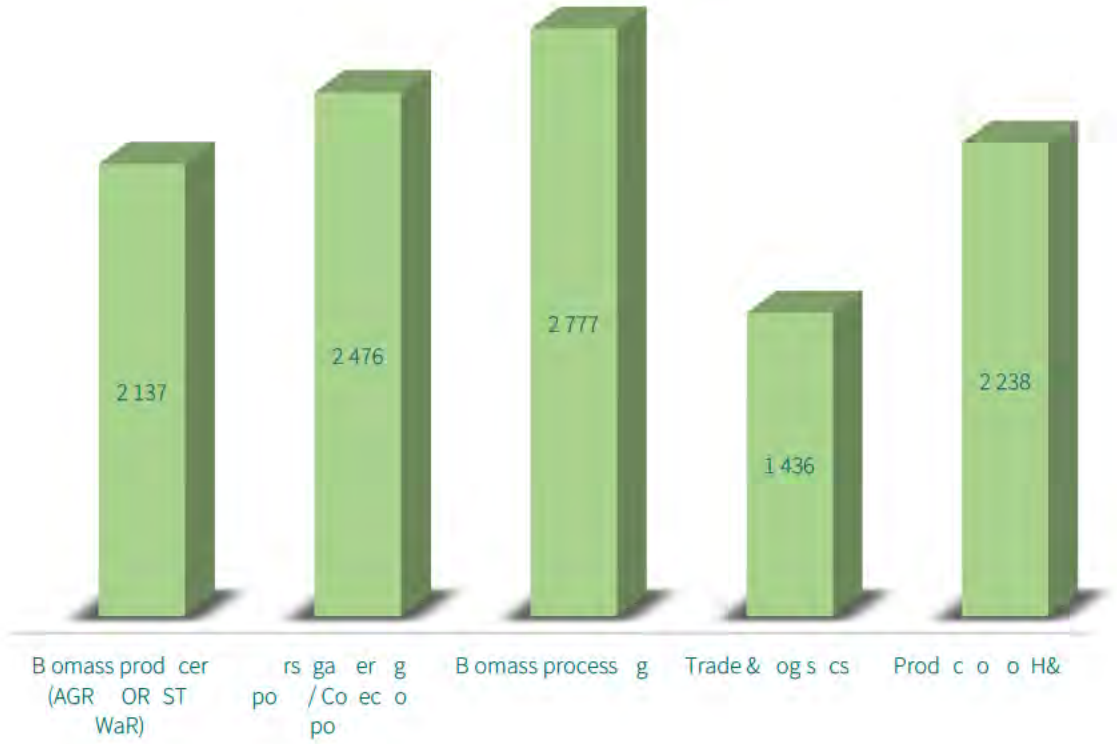
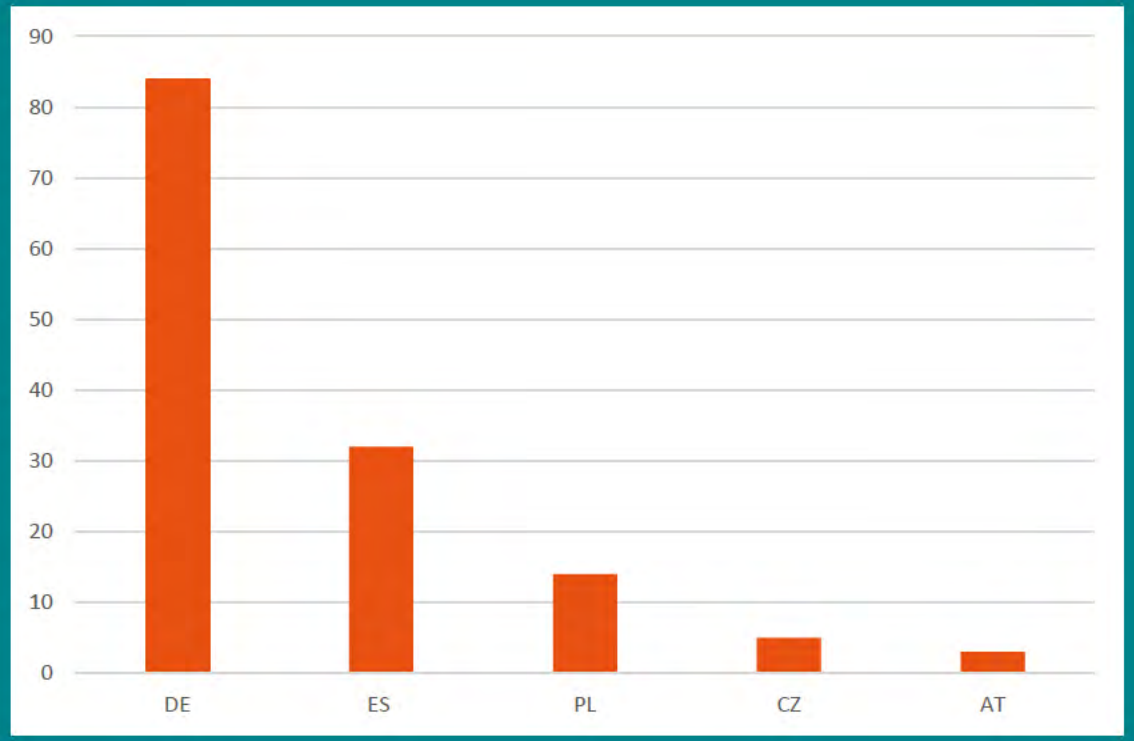
Certified value adding stages (as of January 2023)



Certified biomass plants



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Certified biogas/biomethane plants

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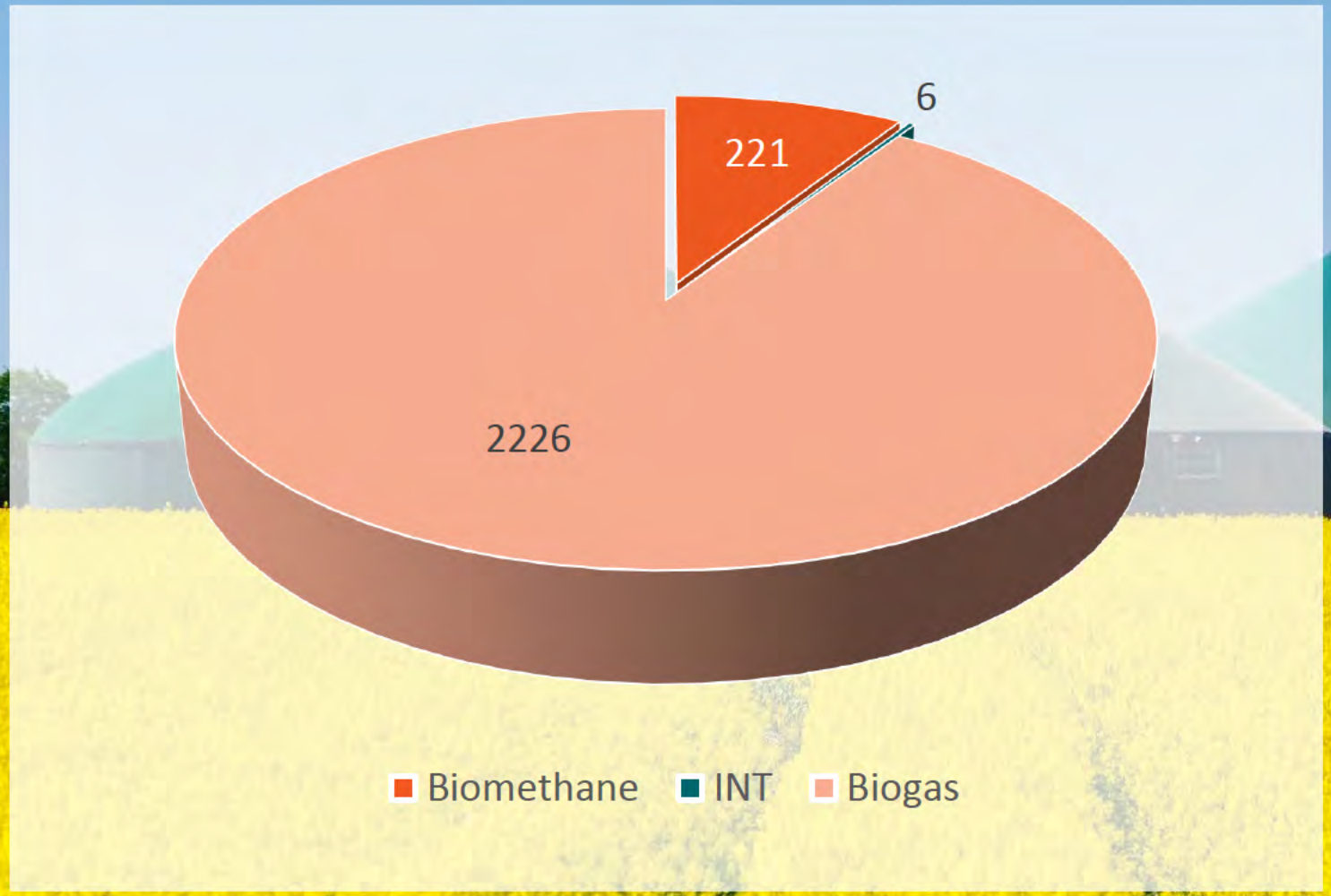

Certified pellet producers

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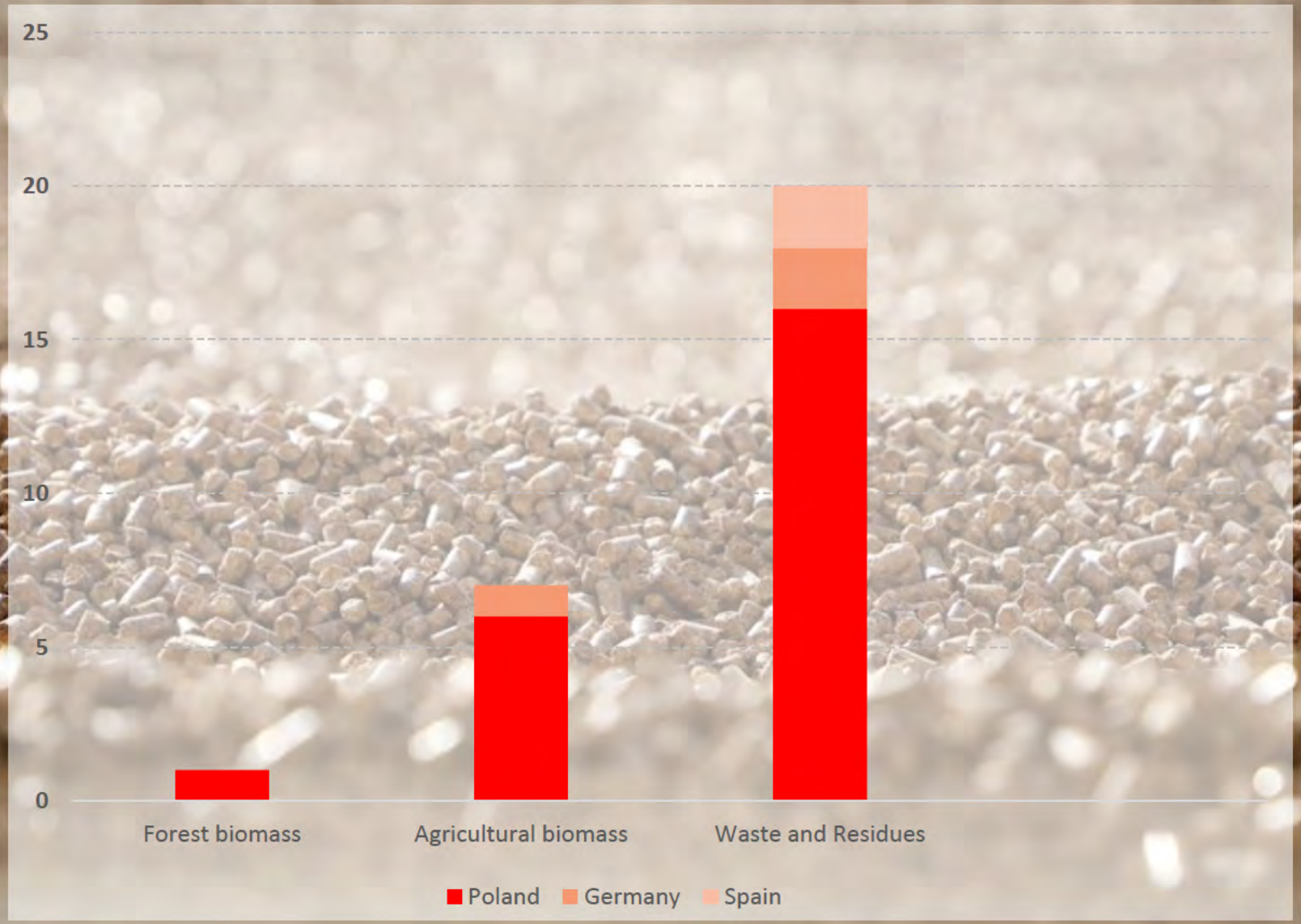

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The legal framework
- Status Quo -

EU legal framework on renewable energies and sustainable biomass

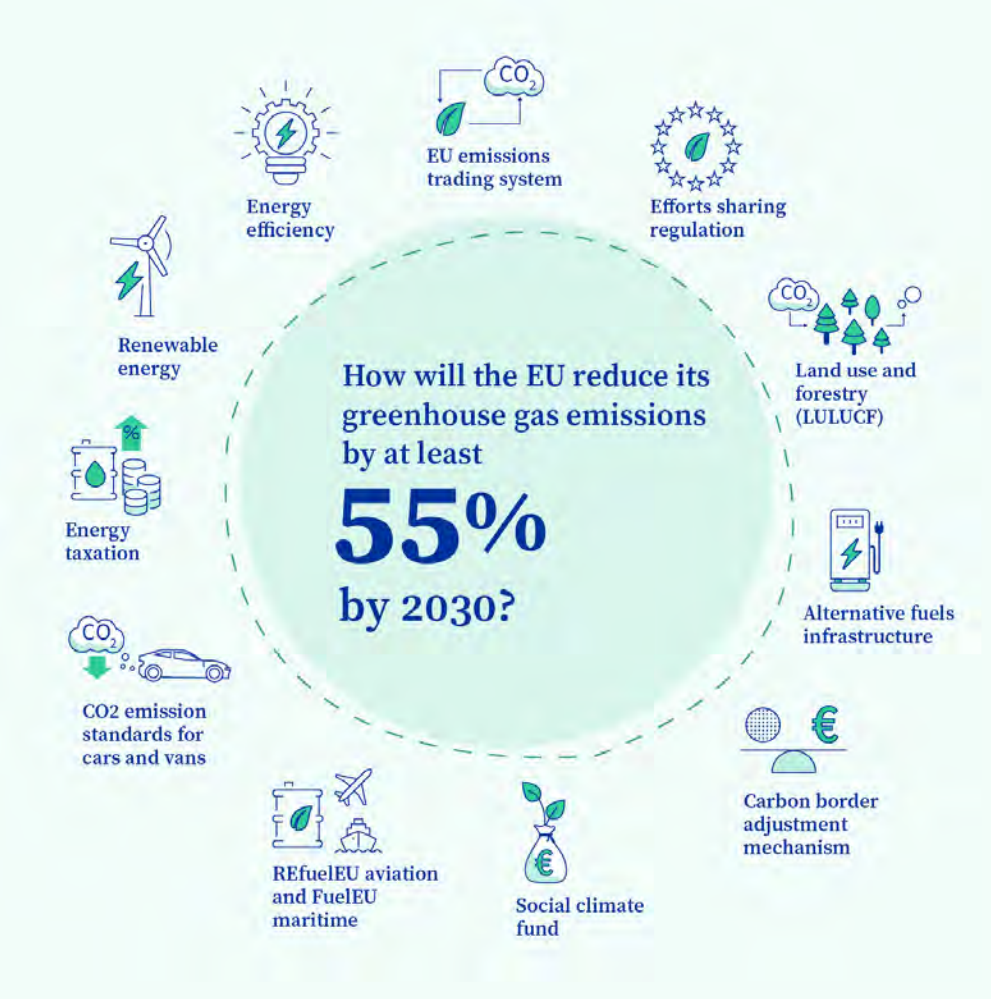
Goal: To move away from fossil fuels towards cleaner energy – and to deliver on the EU's Paris Agreement commitments for reducing greenhouse gas emissions.

- ✓ **EU Renewable Energy Directive 2018/2001 (RED II)**
  → Renewable energy sources consumption of 32% by 2030.

- ✓ **European Green Deal and European Climate Law**
  → Achieving climate neutrality by 2050 and reducing GHG emissions at least 55% by 2030.

- ✓ **Fit for 55 Package**
  → Proposals to revise EU legislation and ensuring meeting the GHG emissions reduction of 55% by 2030.

Fit for 55 package: Revising EU's climate, energy and transport legislation



Implications for Biomass operators

- **Continuous changes** to EU/national and regional legislation

  Revised Renewable Energy Directive (RED III):
  - Primary forest biomass not accounted for subsidies
  - Expanded scope: 7.5 MW (instead of 20 MW)
  - Increased biodiversity protection (E.g. old growth forests)
  - Cap to be defined by Member States on forest biomass
  - Increased GHG emissions savings to 85% (2026)

- **Increasing requirements and complexity** for operators in the biomass supply chain EU

Challenges for biomass operators in EU

- **Hard to keep up with changes:** continuous revision of EU/national/regional legislation
- **Increased level of requirements** to access subsidies
- **Short timelines** for demonstrating compliance
- **Lack of clear communication** from Member States
- **Criticism from public opinion**/environmental activists

How does SURE certification help biomass operators overcome these challenges?

Makes operators' life easier:

- One single package of rules to follow
- SURE certification ensures compliance EU renewable targets (RED) and access to subsidies

Comprehensive language: Translates complex EU Directives into more understandable user oriented package of rules

Trainings and capacity building to help operators understand their obligations

Improves public perception of the biomass sector: Proactively communicates and demonstrates the positive impacts of sustainable biomass use

Biomass also becomes subject to verification in emissions trading

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IMPLEMENTING REGULATION (EU) 2020/2085:

- ✓ The emission factor for biomass shall be zero (...) [*provided that*] biomass fuels used for combustion comply with the sustainability criteria and the greenhouse gas saving criteria set out in Article 29(2) to (7) and (10) of Directive (EU) 2018/2001.
- ✓ The compliance with the criteria laid down in paragraphs 2 to 7 and 10 of Article 29 of Directive (EU) 2018/2001 shall be assessed in accordance with Articles 30 and 31(1) of that Directive.
- ✓ Where the biomass used for combustion does not comply with this paragraph, its carbon content shall be considered as fossil carbon.

IMPLEMENTING REGULATION (EU) 2022/388:

- ✓ Member States, or competent authorities as appropriate, may consider as fulfilled the sustainability and greenhouse gas emissions saving criteria referred to in that paragraph for biofuels, bioliquids and biomass fuels used for combustion from 1 January 2022 to 31 December 2022.

When do MS need to implement REDII?

REDII Art. 29 (1)

>> Energy from (…) biomass fue s sha be taken into account for the purposes referred to in points (a), (b) and (c) of this subparagraph on y if they fu fi the sustainabi ity and the greenhouse gas emissions saving criteria (… aid down in paragraphs 2 to 7 and 10:

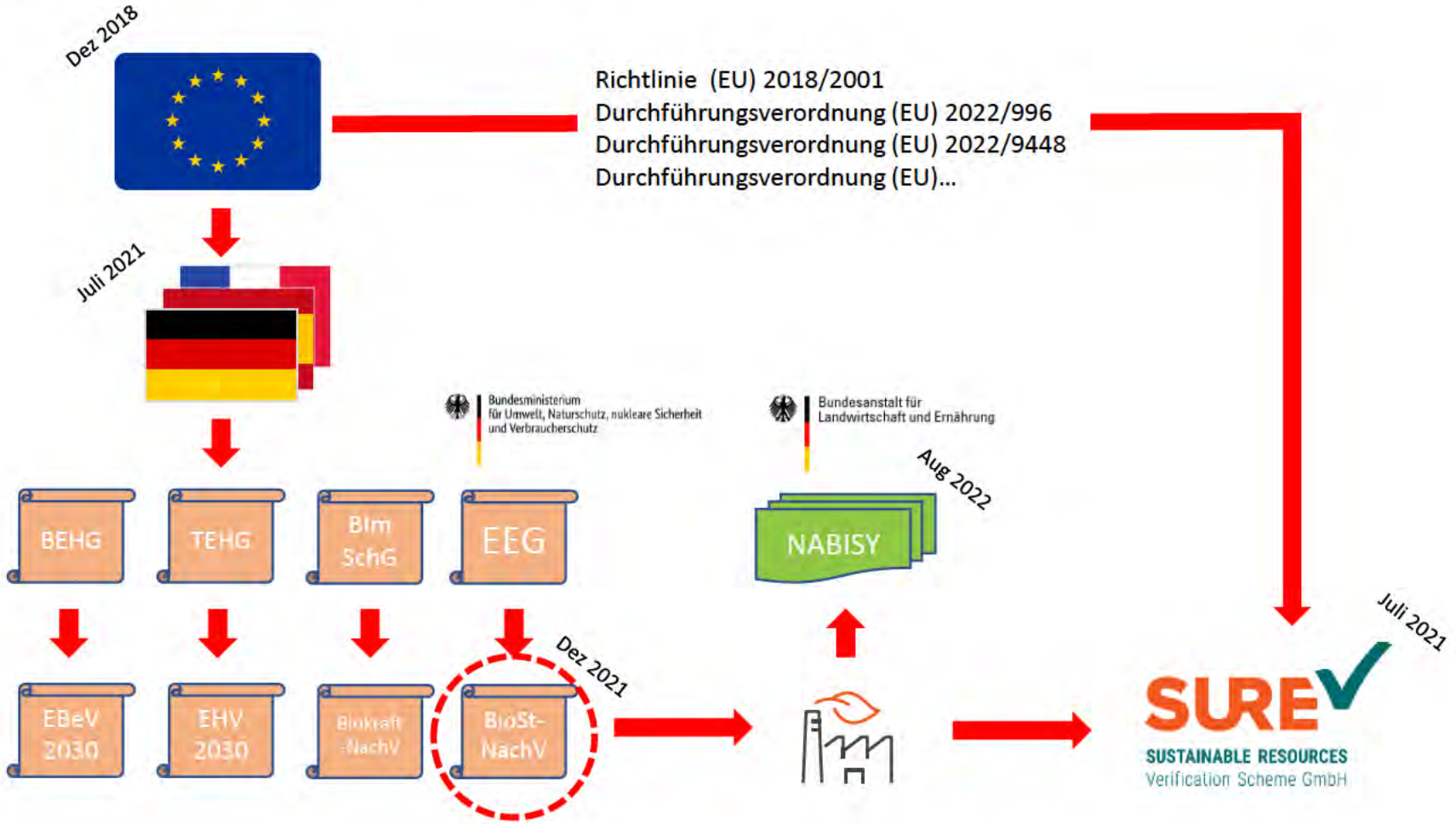
(a) contributing towards the Union target (…) and the RES shares of Member States;

(b) measuring comp iance with renewab e energy ob igations (…);

(c) e igibi ity for financia support for the consumption of (…) biomass fue s.

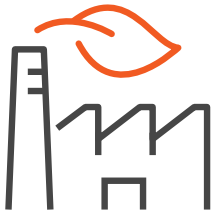
Not SURE, but the egis ator regu ates who is required to provide proof!

Umsetzung der RED II

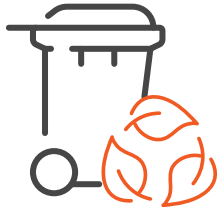


Obliged stakeholders

RED II concerns companies that …



…operate a biomass plant producing H&E and which is within the scope of application



. . . produce or deliver biomass fuels (wood chips, wood pellets, waste wood etc.) to obligated plants

Auditing of waste and residues I

Implementing Regulation (EU) 2022/996, Art. 13

1. Vo untary schemes (…) sha app y the requirements for the verification of the supply chain of (…) biomass fuels (…) set out in paragraphs 2 to 5.
2. The whole supply chain sha be covered starting from its origin, that is to say, the economic operator where the waste or residue materia arises;
3. A economic operators sha be audited individua y. However, group auditing approaches may be carried out at the origin of the supply chain, for examp e, restaurants and waste or residue producers;

Auditing of waste and residues II

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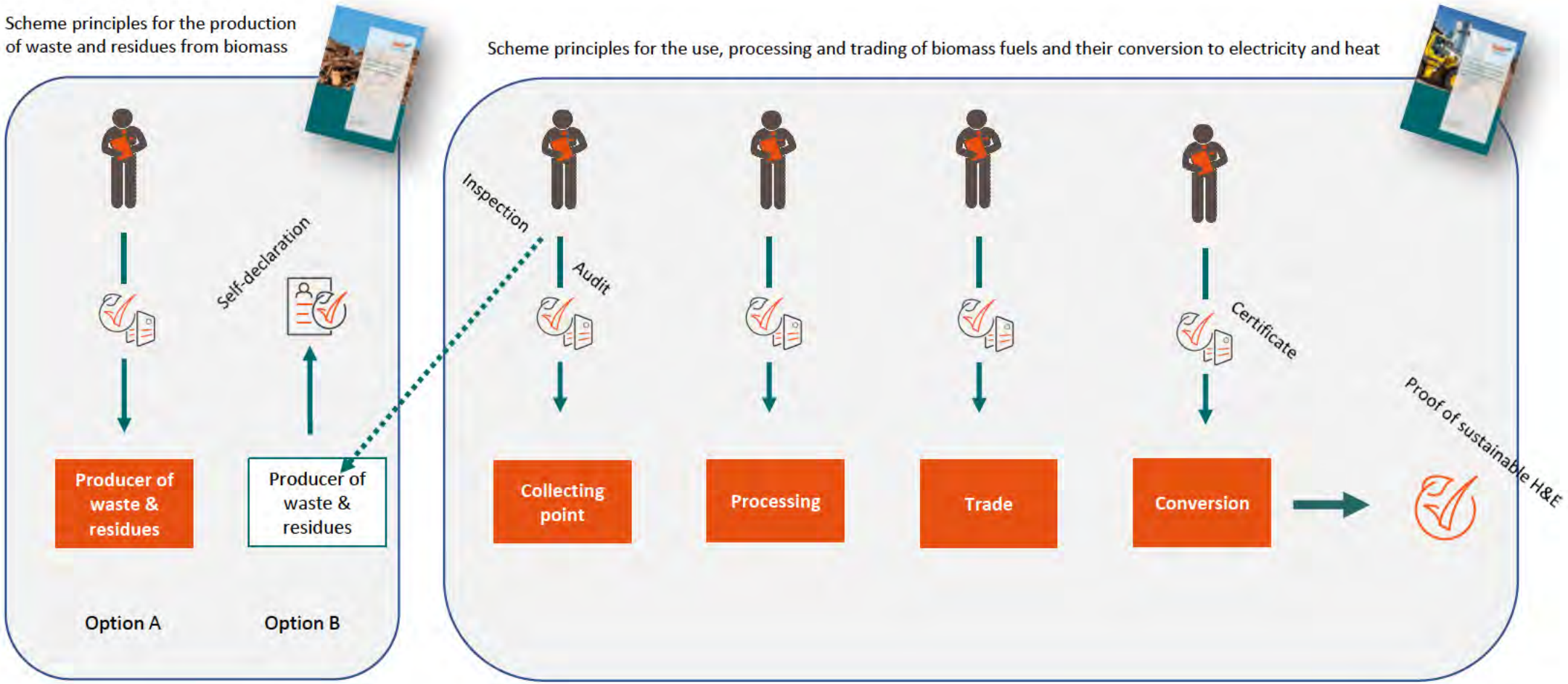
Implementing Regulation (EU) 2022/996, Art. 13

4. (…) Voluntary schemes shall define clear rules, commensurate to the eve of specific risk associated with the type of residues or waste. (…)

5. Co ection points sha be required to submit a ist of a points of origin that have signed a self-declaration to the auditor prior to the audit of the co ection point. The amount of waste generated month y or annua y sha be c ear y stated on the se f-dec aration. Evidence or documents for all individual deliveries shall be available at the collection point and verified by the auditor, including waste disposal agreement, delivery slips and self-declarations;

Auditing the supply chain of W&R



But what does „supply chain“ mean?

The supply chain is almost growing exponentially

Biomass plant → Collection point / Trader → Point of Origin

Mass balancing

What to consider in biomass fuel trade

1) The jungle of required recognitions, patchwork of national legislations and insufficient scopes
2) Lack of industry readiness, lack of understanding and lack of willingness to get certified
3) Bottlenecks and unclear procedures everywhere

What about biomass fuels in stock?

Essential mass balance rules in a nutshell

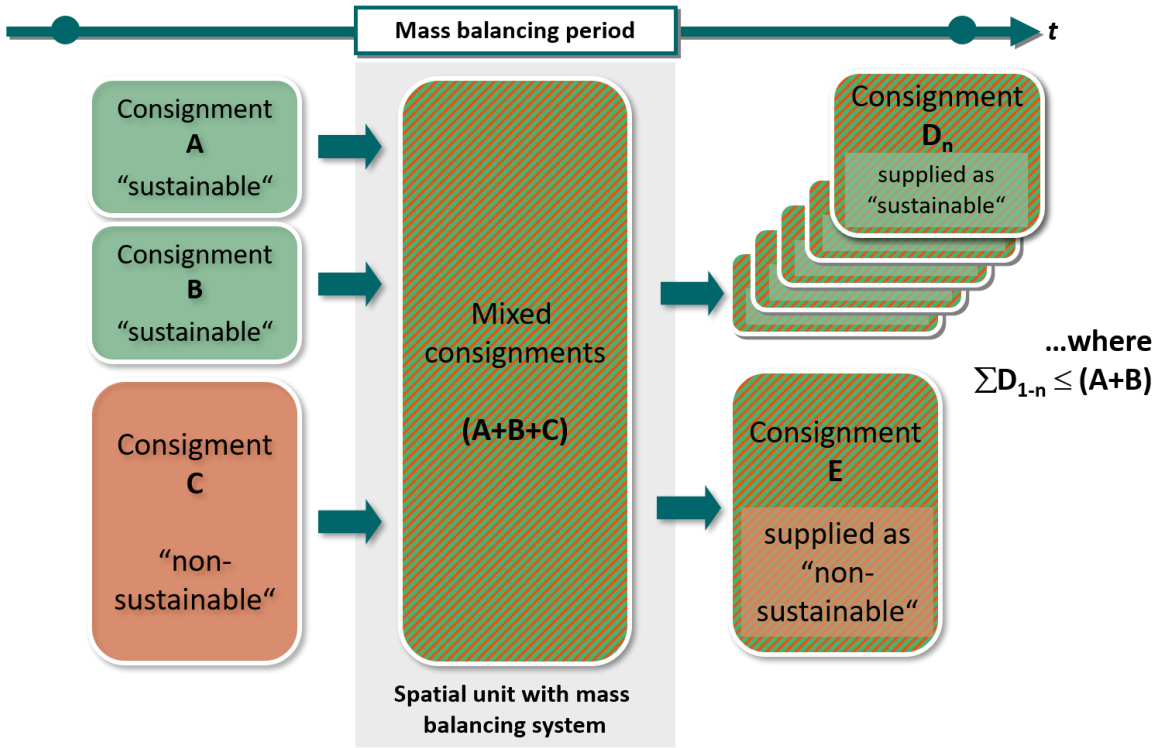
- ✓ Biomass can only be registered as sustainable if verified / with a valid certificate!
- ✓ Retroactive declaration as sustainable after receipt of the certificate is NOT PERMITTED!
- ✓ Stocks do not suddenly become sustainable through certification!
- ✓ Mass balance rules require registration of ALL sustainable and non-sustainable biomasses in the stock

When are biomass fuels sustainable?

- ✓ Dead ine 1 January 2023 for H&E generated from biomass fue s means, that the upstream supp y chain needs to be certified way ahead ! ! !

Principles of mass balancing

Mass balancing



Mass balancing in the ETS

Implementing Regulation (EU) 2018/2066

- The mass balance approach of REDII is only practicable for pure biomass fuels (100% biogenic)
- Further procedures required for the determination of the biogenic share of mixed fuels (only proportionally biogenic):
  - ✓ Analytics such as C14 analyses, suspension methods, etc.
  - ✓ Qualified estimations with regular control measurements
  - ✓ Use of default values
- Biogenic share ≠ sustainable biomass

Mass balancing in the ETS

How to comply with the mass balancing requirements?

The determined biogenic share can be retroactively reported to one supplier, who then corrects his preliminary data in the mass balance, but…

…what if there is more than one supplier?

… how can the biogenic share be allocated to several suppliers, especially if not all suppliers are certified and thus not every biogenic share also represents sustainable biomass?

… how can the biogenic share of the fuel used be traced back in a complex supply chain of suppliers?

Mass balancing in the ETS

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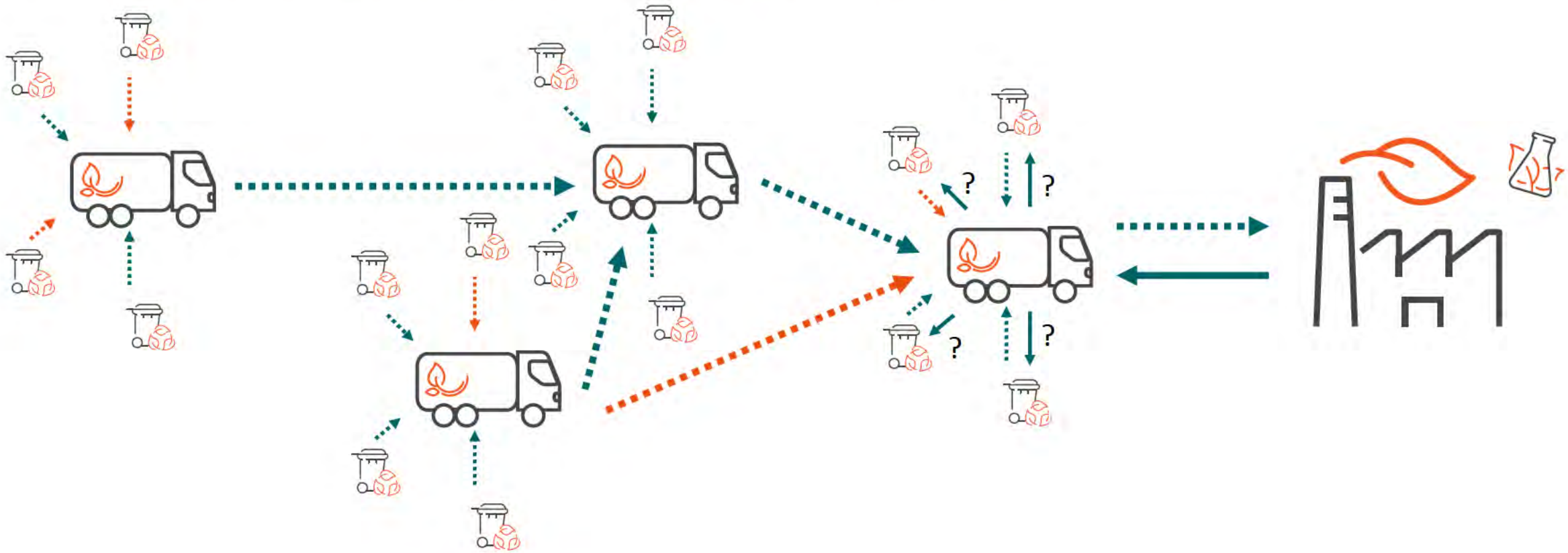
How to trace the biogenic share back in a complex supply chain?



Mass balancing in the ETS

How to trace the biogenic share back in a complex supply chain?

- ! Estimations or default values might not work if the biomass share of the fuel is irregular or discontinuous
- ! A mass balance approach is not feasible without defined and traceable input / output streams

Do all collection points or even points of origin then have to

analytically determine the biogenic content of their material flow? COSTS?

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www.sure-system.org

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Backup Folien

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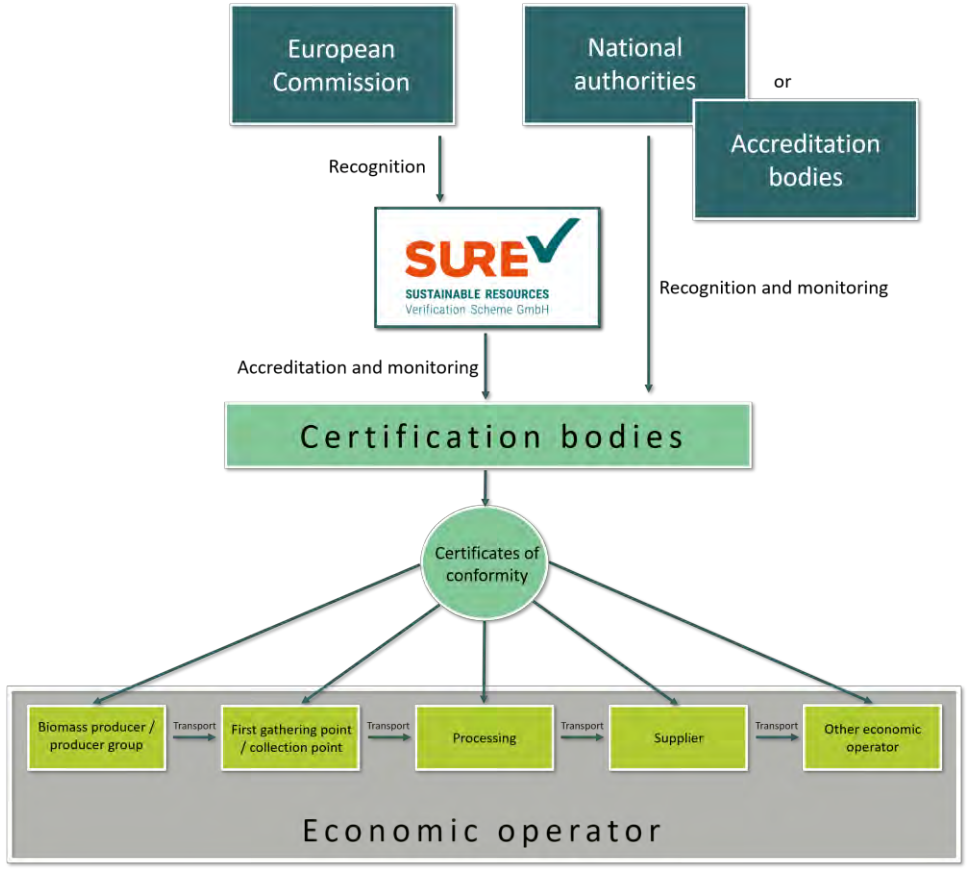
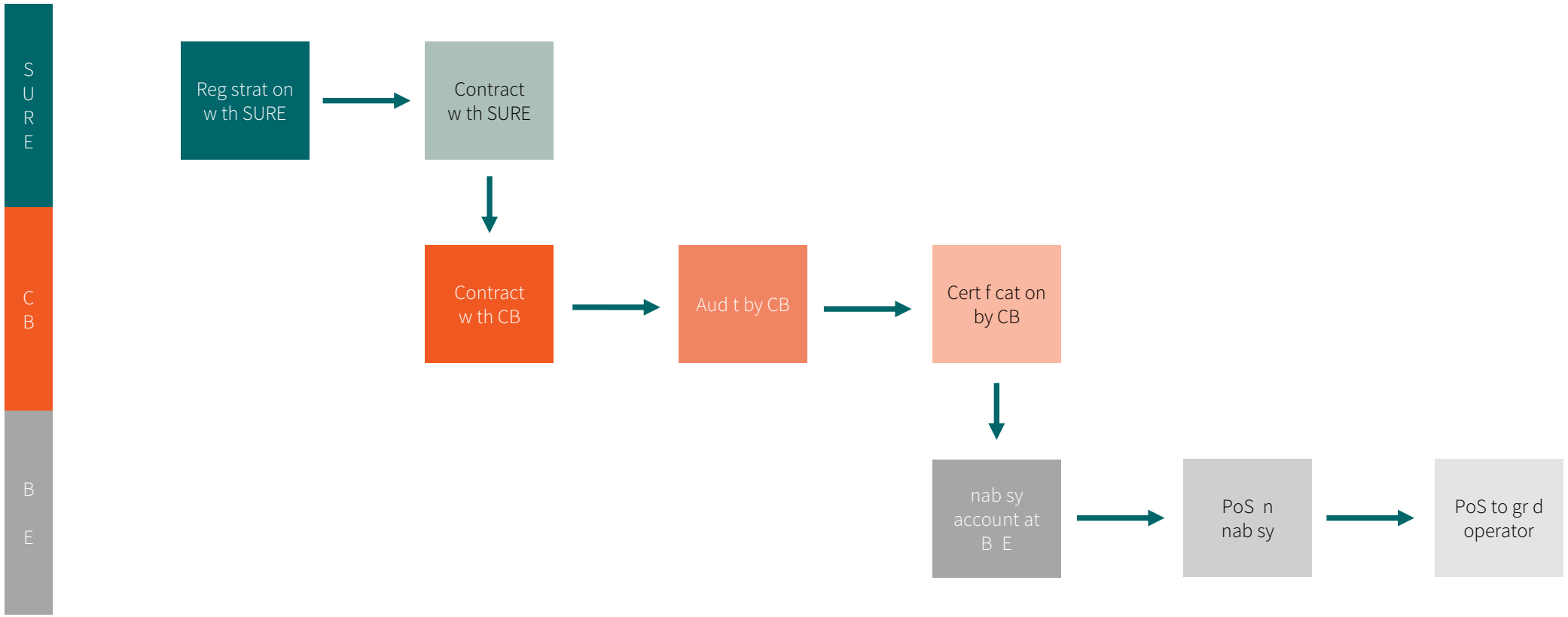
The certification process

The certification process

- ✓ SURE verifies compliance with RED II according to the scheme principles and developed methodologies recognized by the Commission
- ✓ By signing the system contract, the system participants undertake to comply with the requirements defined in the SURE system principles
- ✓ System participants shall be controlled at least once a year by trained external auditors



How to proof compliance?



Registration with SURE

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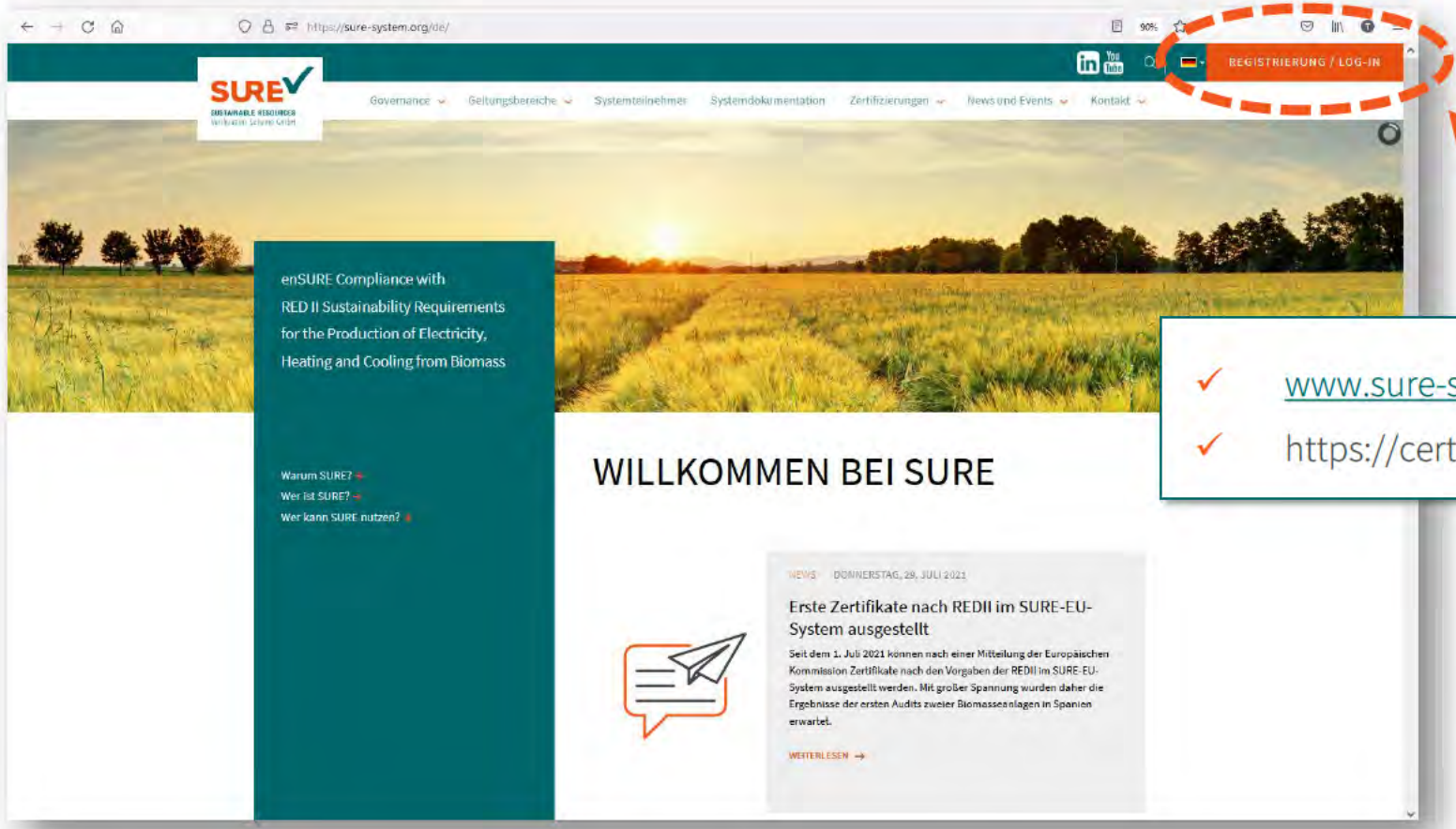
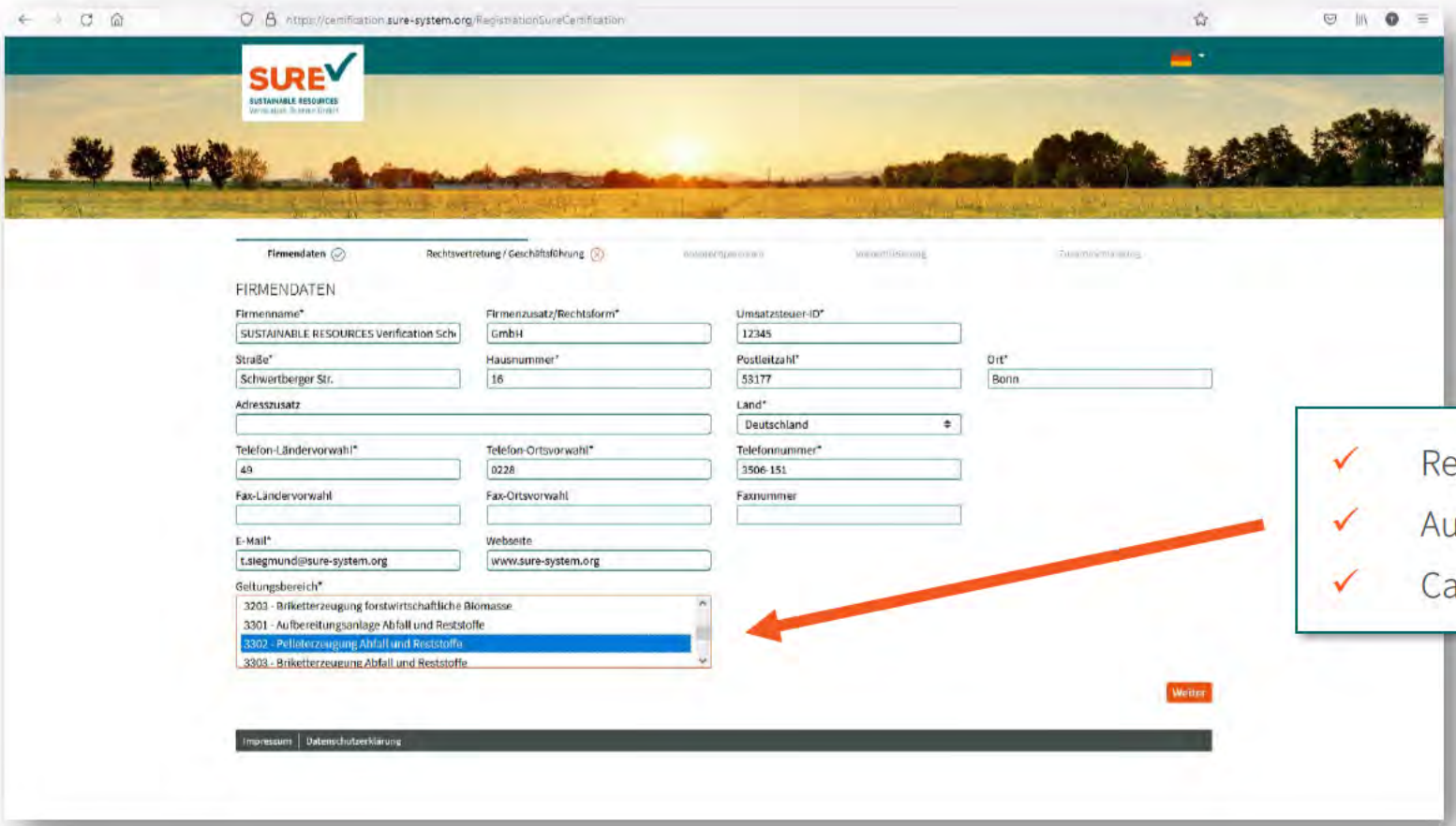


- ✓ www.sure-system.org → Log-in or
- ✓ https://certification.sure-system.org/Login

Registration with SURE



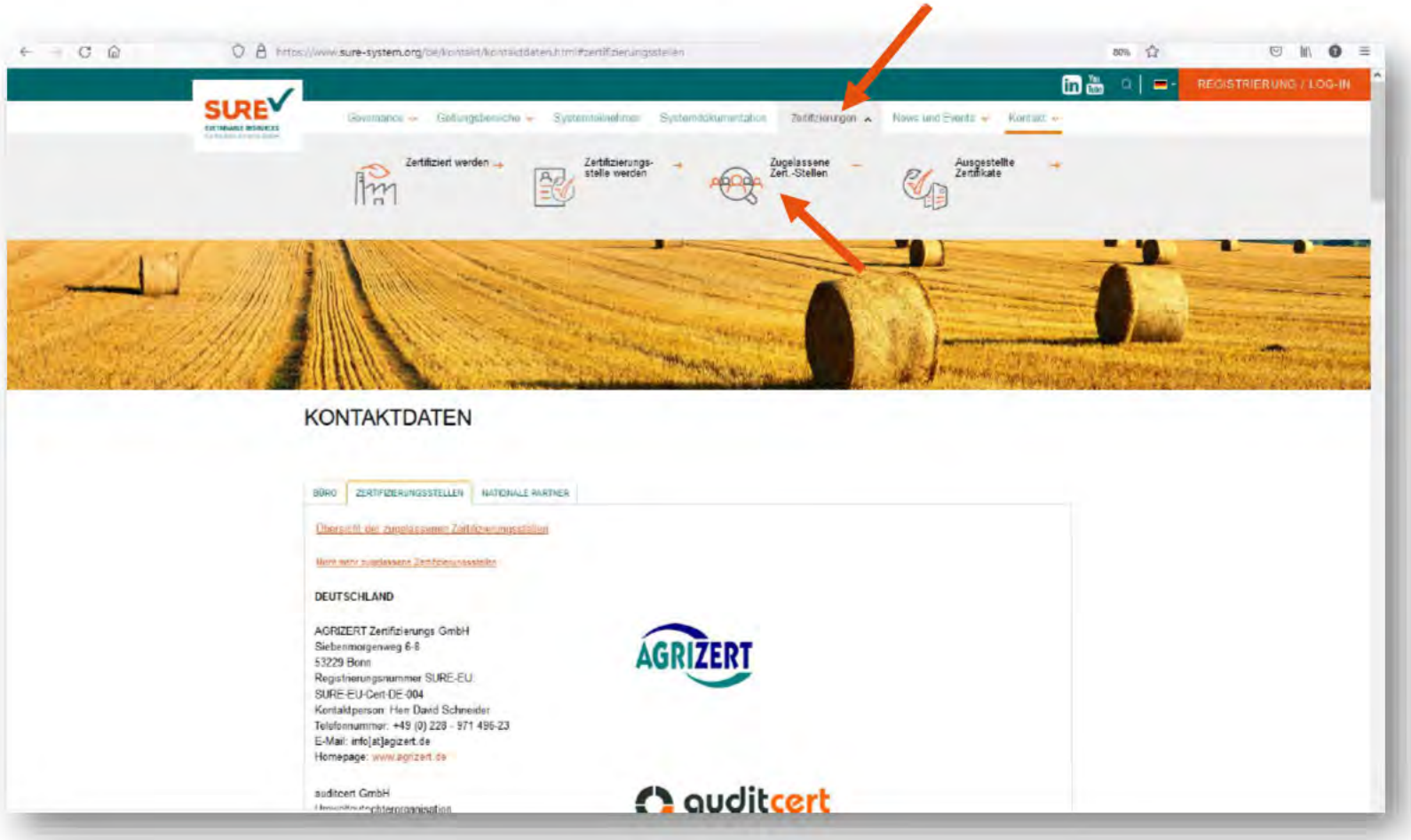
- ✓ Registration of scopes important
- ✓ Auditor checks against the registered scopes
- ✓ Can be edited at any time

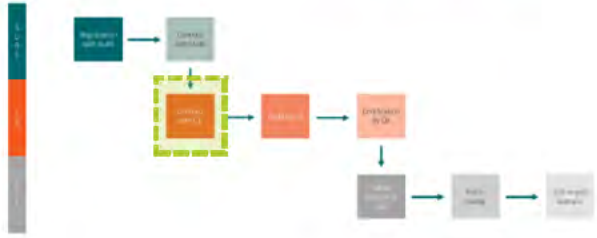
Contract with SURE

- ✓ After successful registration economic operators receive all relevant documents including scheme contract
- ✓ Contract is to be signed and submitted to SURE
- ✓ After receiving the countersigned contract, the EO is a scheme participant of SURE
- ✓ Access data to manage the registered entity are submitted to the EO


SURE-EU scheme contract

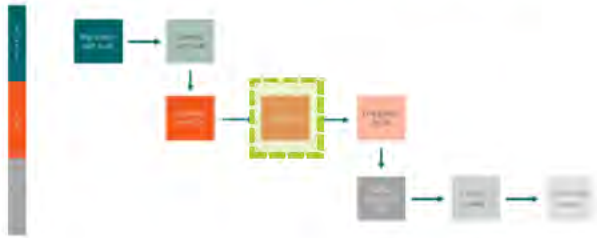
Contract with CB

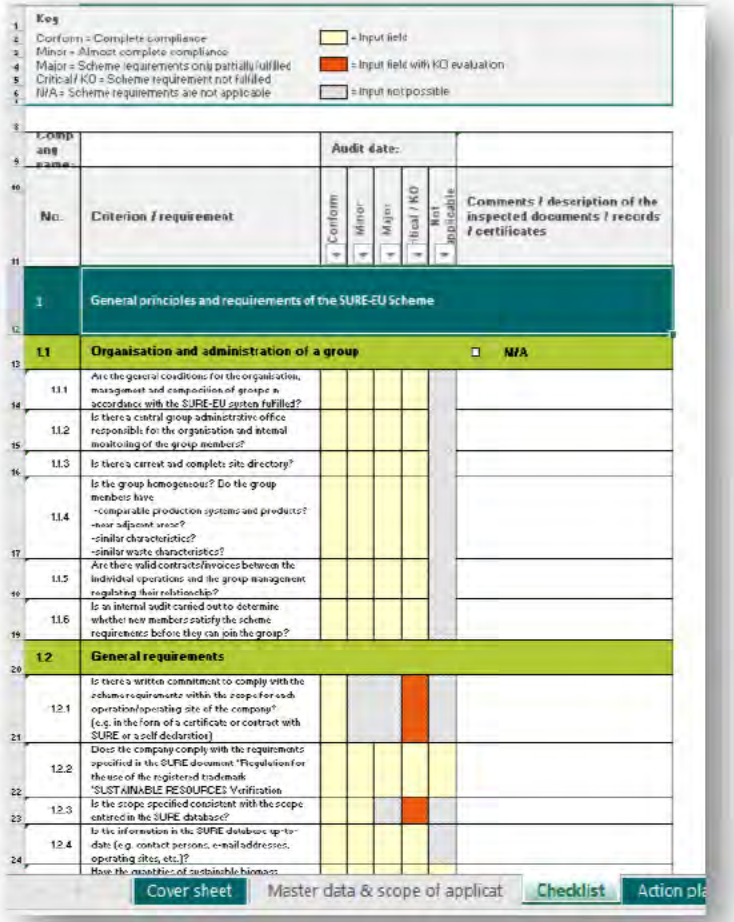




- ✓ A certification body approved by SURE is to be selected and commissioned
- ✓ CB confirms its assignment to SURE
- ✓ Arrangement of an audit appointment with the CB

Audit of the economic operator





Key

Conform = Complete compliance
Minor = Almost complete compliance
Major = Scheme requirements only partially fulfilled
Critical / KO = Scheme requirement not fulfilled
N/A = Scheme requirements are not applicable

= Input field
= Input field with KO evaluation
= Input not possible

Company name:

Audit date:

No.	Criterion / requirement	Conform	Minor	Major	Critical / KO	Not applicable	Comments / description of the inspected documents / records / certificates
1	General principles and requirements of the SURE-EU Scheme						
1.1	Organisation and administration of a group					☐ N/A	
1.1.1	Are the general conditions for the organisation, management and composition of groups in accordance with the SURE-EU system fulfilled?						
1.1.2	Is there a central group administrative office responsible for the organisation and internal monitoring of the group members?						
1.1.3	Is there a current and complete site directory?						
1.1.4	Is the group homogeneous? Do the group members have -comparable production systems and products? -near adjacent areas? -similar characteristics? -similar waste characteristics?						
1.1.5	Are there valid contracts/invoices between the individual operations and the group management regulating their relationship?						
1.1.6	Is an internal audit carried out to determine whether new members satisfy the scheme requirements before they can join the group?						
1.2	General requirements						
1.2.1	Is there a written commitment to comply with the scheme requirements within the scope for each operation/operating site of the company? (e.g. in the form of a certificate or contract with SURE or a self declaration)						
1.2.2	Does the company comply with the requirements specified in the SURE document "Regulation for the use of the registered trademark "SUSTAINABLE RESOURCES Verification						
1.2.3	Is the scope specified consistent with the scope entered in the SURE database?						
1.2.4	Is the information in the SURE database up-to-date (e.g. contact persons, e-mail addresses, operating sites, etc.)?						
	Have the quantities of sustainable biomass						

Cover sheet | Master data & scope of applicat | Checklist | Action pl

- ✓ Implementation of the audit by a registered auditor using the SURE checklist
- ✓ The audit process can take up to 40 days depending on the corrective actions required
- ✓ Initial audits have to be done on site

Issuance of the certificate


Your logo

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Certificate

SURE-EU/DE-001/Z98765

By means of an audit on 25.11.2020, documented in a report

ABC Cert
SURE-EU-Cert-DE-001
Beispielstraße 100, 10000 Musterhausen, Germany

confirms to

SURE GmbH
Schwertberger Straße 16, 53177 Bonn, Germany

the compliance with the requirements of the certification system

SURE-EU Certification Scheme

which is approved by the European Commission by *[date]* as scheme for demonstrating compliance with the sustainability criteria under Directive (EU) 2018/2001 of the European Parliament and the Council.

This certificate serves as proof of compliance with the requirements of Directive (EU) 2018/2001 for the following scope(s):

2301 – Collector of waste and residues

Date of certification decision: 25.11.2020.
This certificate is valid* from 26.11.2020 to 25.11.2021.

Place and date

Signature of certification body

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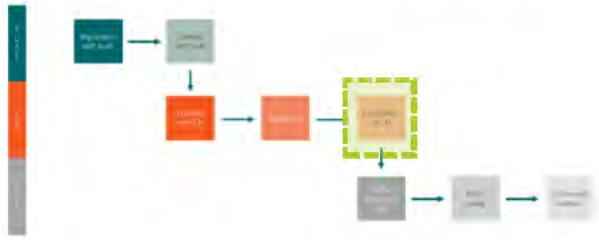

- ✓ The audit report is checked by the certification body
- ✓ The certification decision is made no later than 42 days after receipt of the audit report
- ✓ The certificate is only valid once the CB has uploaded the certificate to the public SURE certificate database
- ✓ In the scope of the BioSt-NachV, a surveillance audit is mandatory no later than 6 months after the initial certification

Pitfalls of RED II-certification (1)

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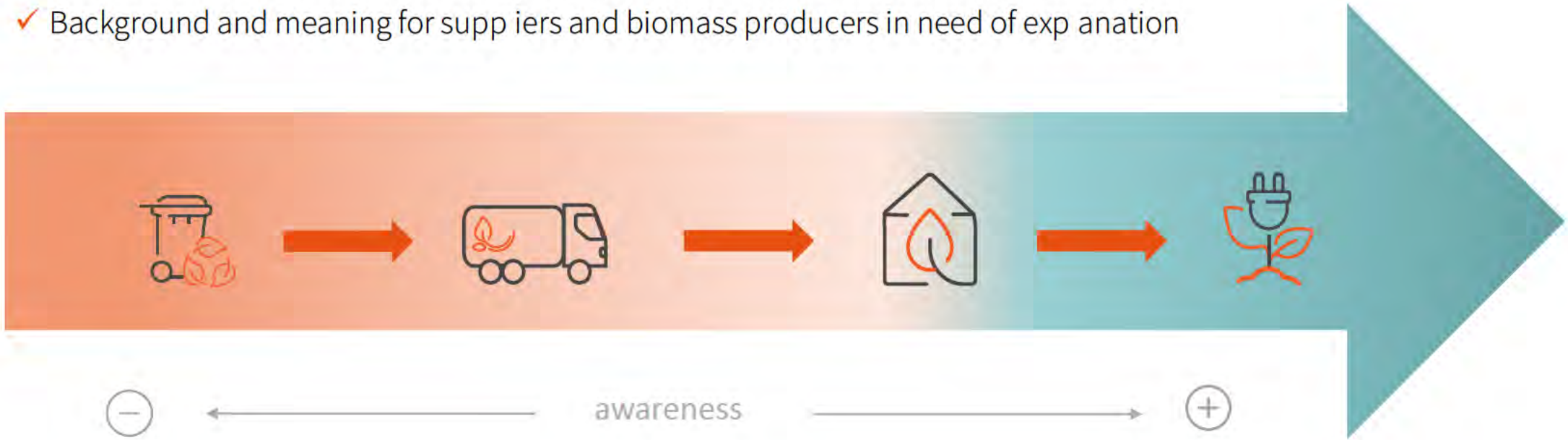
Lack of awareness in the supply chain

- ✓ Supp iers and biomass producers are on y informed very ate (too ate?)
- ✓ RED as such is often not even known to supp iers and biomass producers
- ✓ Background and meaning for supp iers and biomass producers in need of exp anation



Pitfalls of RED II-certification (2)

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Lack of understanding

- ✓ RED requirements very theoretica and abstract
- ✓ Formu ations of the RED (and scheme princip es of the VS) very technocratic
- ✓ Many requirements require detai ed specia ist know edge (e.g. for GHG ca cu ation)

$$E = e_{ec} + e_l + e_p + e_{td} + e_u - e_{sca} - e_{ccs} - e_{ccr}$$

$$e_{ec}' = \frac{EM_{Dünger}\left[\frac{kgCO_2eq}{ha*a}\right] + EM_{Pestizide}\left[\frac{kgCO_2eq}{ha*a}\right] + EM_{Brennstoff}\left[\frac{kgCO_2eq}{ha*a}\right] + EM_{Strom}\left[\frac{kgCO_2eq}{ha*a}\right] + EM_{N2O}\left[\frac{kgCO_2eq}{ha*a}\right]}{Ernteertrag_{Haupterzeugnis}\left[\frac{kg\ Ernteertrag}{ha*a}\right]}$$

Pitfalls of RED II-certification (3)

Lack of willingness

- ✓ Effort and costs for certification without added va ue or compensation
- ✓ Existing certificates from other VS may not be used
- ✓ Competitive disadvantage compared to non-ob igated economic operators
- ✓ A ternative marketing opportunities in other sectors / sma er faci ities
- ✓ Processes for verification unc ear, imprecise or too bureaucratic
- ✓ Persons invo ved in authorities, certification bodies and vo untary schemes overwhe med

Pitfalls of RED II-certification (4)

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Lack of TIME!!

- ✓ Certification needs (ead) time for
  - understanding the scheme requirements
  - preparing the audit
  - se ecting a certification body
  - making an appointment for the audit
  - E imination of identified non-conformities
  - contro of the audit report unti certification decision
- ✓ Keep an eye on dead ines for proof of sustainabi ity and p an sufficient ead time

Pitfalls of RED II-certification (5)

Bottlenecks everywhere

- ✓ High discrepancy between approved auditors and economic operators to be certified
- ✓ De ays in the processing of app ications at certification bodies, vo untary schemes and authorities due to the sheer number of economic operators subject to certification
- ✓ Bott enecks in the avai abi ity of a ready certified sustainab e biomass ike y due to interrupted supp y chains