

## ***DIGITAL TRANSFORMATION OF THE TIMBER FLOW IN FOREST SECTOR***

# The Digitalization in the Swedish Forest Sector

*Conference in Jelgava*

*2020-09-23*

**Anders Rixon**

Håkan Larsson, Program manager new VIOL 3 System

Lars Persson, Manager VIOL



## ***DIGITAL TRANSFORMATION OF THE TIMBER FLOW IN FOREST SECTOR***

# **Introduction**

## **Anders Rixon**

Chairman of the Council in VMF Latvia and  
Latvian Wood Flow Data Center (KpDC)

Former president of VMF Qbera and SDC



LATVIJAS KOKMATERIĀLU  
PĀRDEVĒJU BIEDRĪBA

LATVIJAS KOKMATERIĀLU  
PIRCĒJU BIEDRĪBA



## The Log Drivning forced needs for Standardization





## The Independent Measurement Associations forced Standardized Measurement





SDC: Almost 60 years of  
experience in IT services  
to the Forest Sector



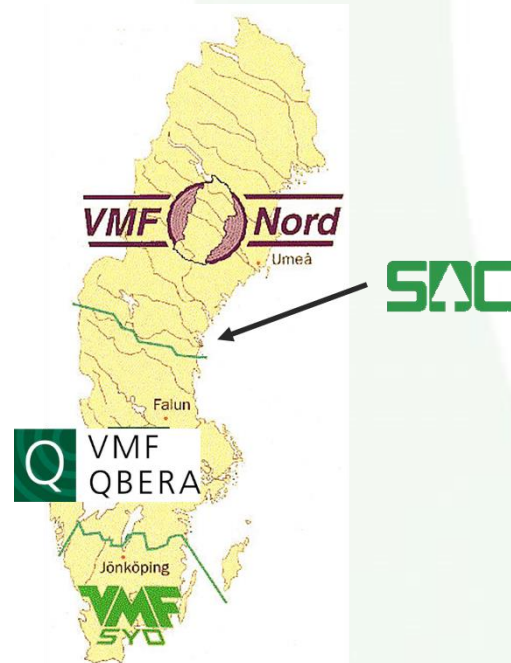


# Common Impartial Measurement and Standardized Processes for Wood Accounting is the Base for Digital Transformation in Sweden

## The wood trade in Sweden

- Measured volume abt. 130 milj. cubic metres yearly
- 330.000 suppliers
- 1700 harvesters
- 1700 forwarders
- 4500 log-trucks
- 3000 users of the VIOL system
- 315 Measurement places

Until 2018: Regional Timber Measurement Associations, and SDC for data management



From 2019 one organization for measurement and accountancy services in Sweden





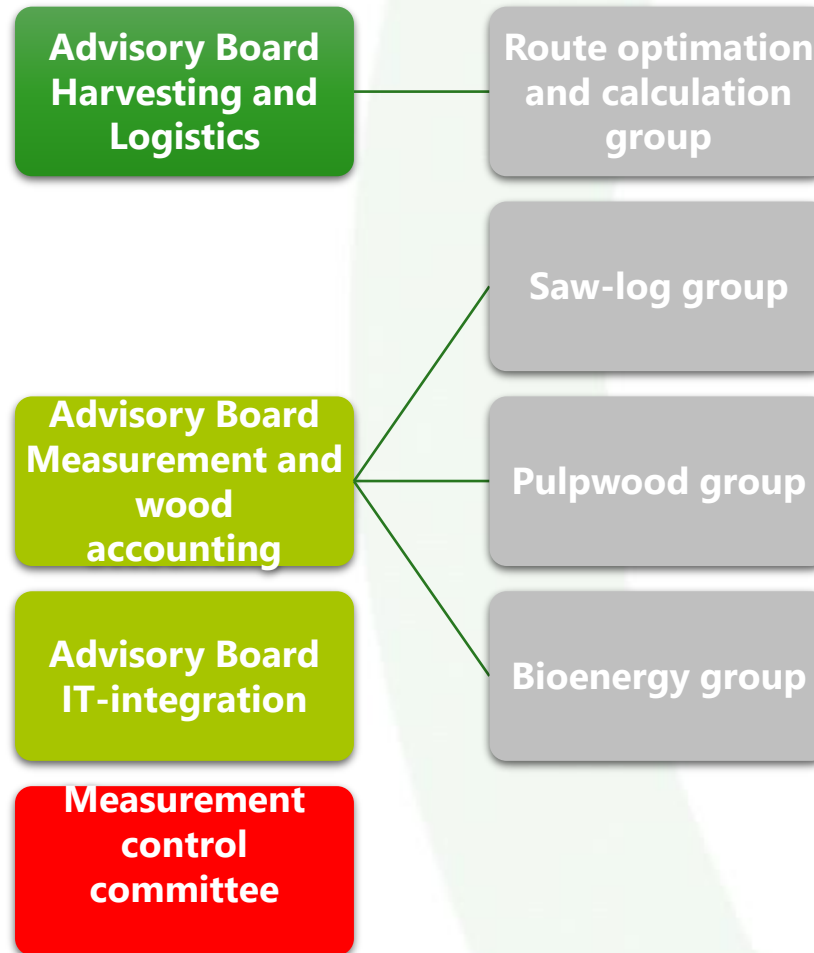


# BIOMETRIA

Center for Wood Measurement,  
Accounting and Digitalization in  
the Swedish Forest Sector



# Governance: Council of owners with support of Four National Advisory Boards





# The VIOL System was introduced 1980. Today the third system generation is under developement

- The VIOL System is a common digital platform for the Forest Sector based on
  - Standardized information flow regarding trade, production and logistics concerning
    - Terms
    - Masterdata
    - Working processes
    - Information processes and IT-intergrations
- Forest Companies can use VIOL in two ways:
  - as a direct tool through the "VIOL Client"
  - as a Information hub intgrated to their own IT-systems
- Benefits are higher competitiveness for the Forest Sector by
  - Lower costs and enviromental impact by optimizing business processes with several parts involved
  - Creating trust between business parts throug transparance in the interactions
  - High cost efficiency in wood-measurement and wood-accounting



# VIOL System - IT Service Catalog

## Service Areas

**Wood Accounting:**  
Services for wood-accounting

**Measurement:**  
Services for wood measurement

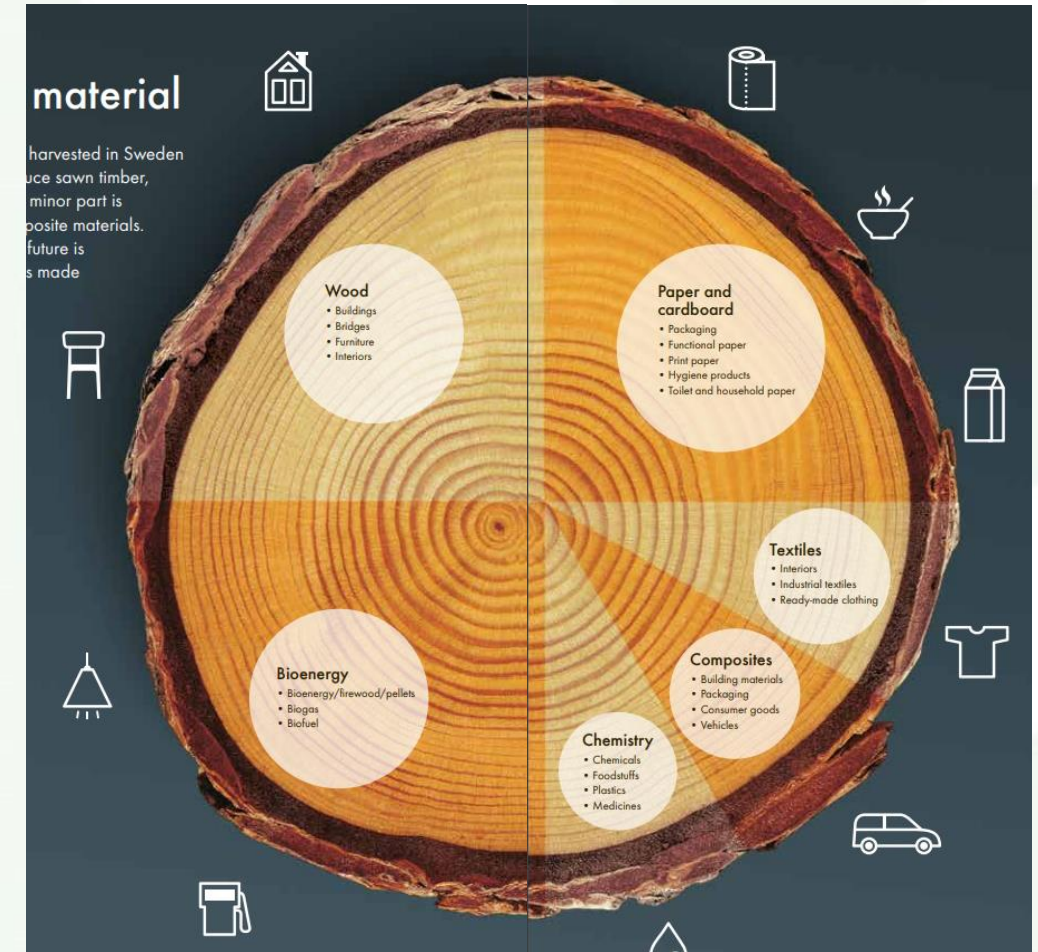
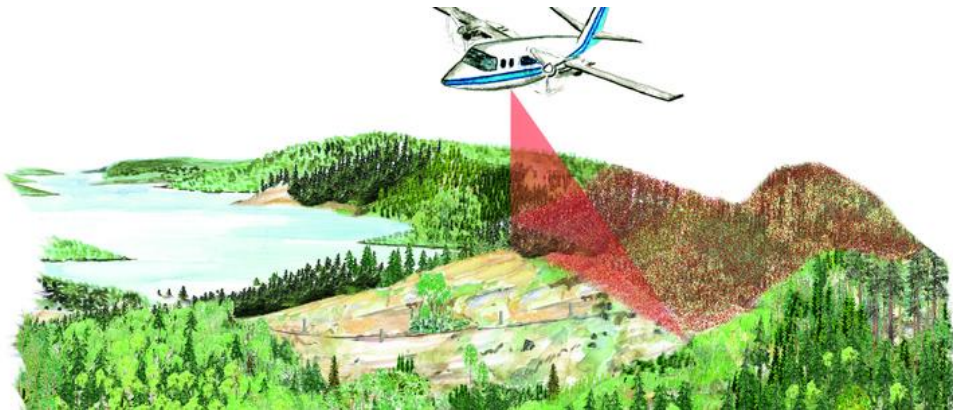
**Transportation:**  
Services for transport information and transport accounting

**Harvesting and forwarding:**  
Services for production planning, reporting, and monitoring



# Biometria and the **VIOL System** in the future – more than just Timber Measurement and Accounting

Analyzes and decision tools based on data from forest to final products to a "Data Driven" Forest Sector





# VIOL 3 – a digital platform for the future

Håkan Larsson

Program manager VIOL 3



# Håkan Larsson

- Program manager VIOL3
- Independent consultant
- Forest owner (snickeboa)
- Södra 24 years
  - Manager forest division
  - Sold Södra Latvia to SCA and started Södra Mezs
  - Logistics
  - Mönsterås sawmill 1999





# Trends that provide opportunities



Digitalisation everywhere



Transparency and new forest owners



Sustainability in focus



New business models




”

We will replace VIOL 2 with a completely new platform based on standardized processes that enable continued digitalisation of the forest industry's business



# Estimated benefit of 50 million € per year



Increased  
utilisation of raw  
materials

Lower  
logistics  
costs

Lower stock  
binding

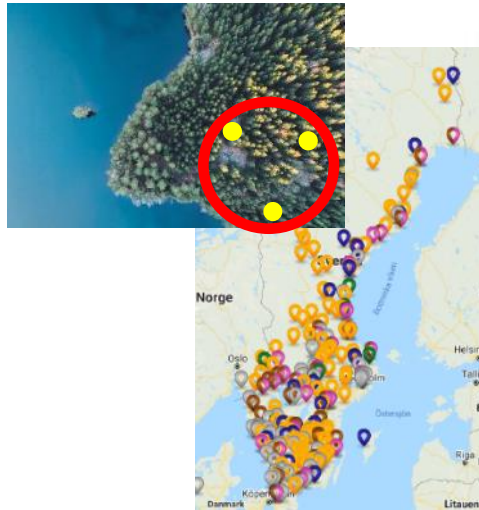
Lower  
IT costs



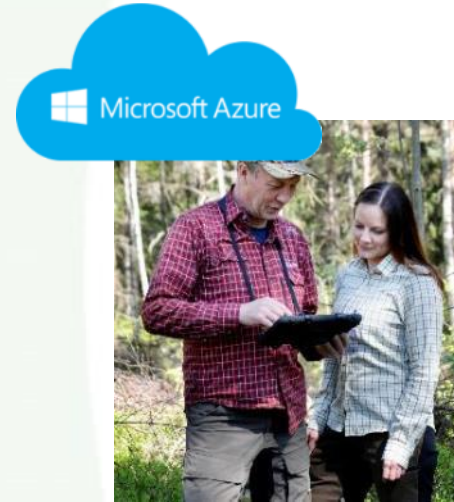
# Supporting and challenging customer processes



Managing all types of data  
Customer specific data



Optimizing  
logistics and  
use of wood



Accessibility  
Cloud solution  
All devices



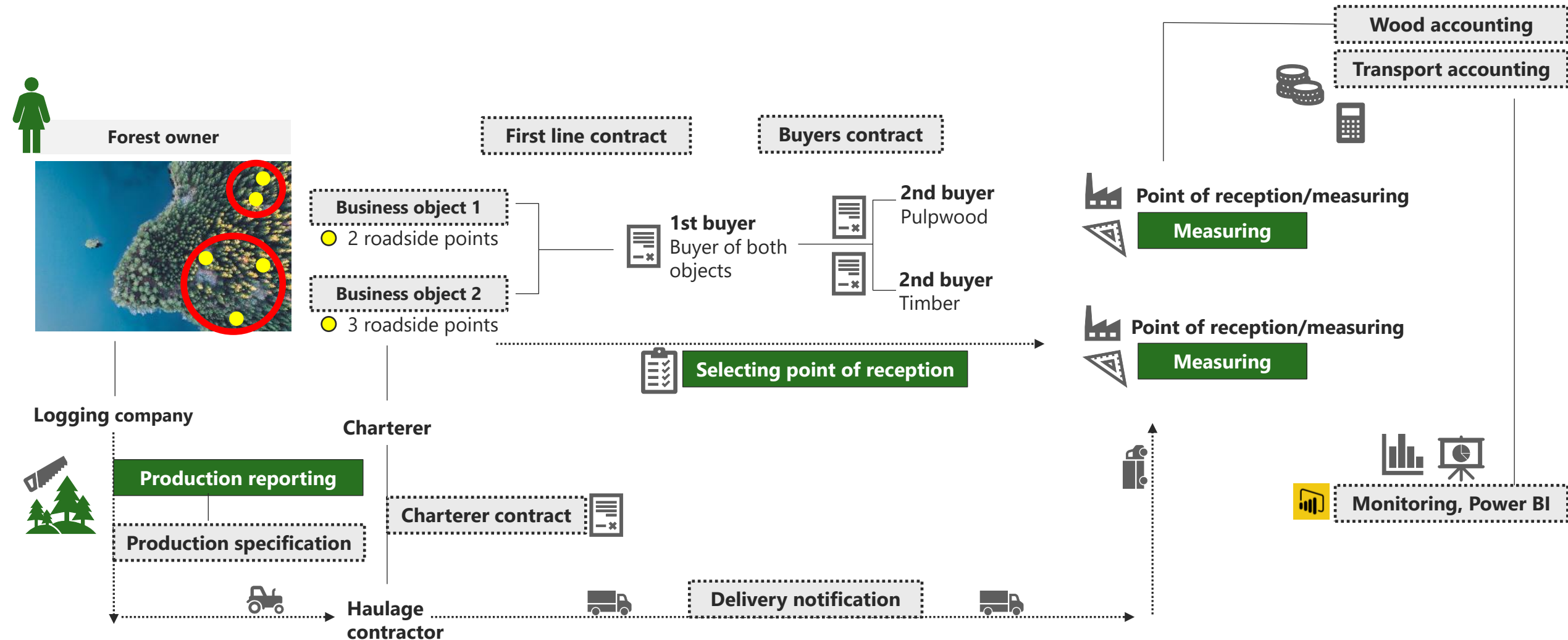
Analytics,  
automation,  
AI etc



Proactivity!



# Based on the business objects in the contract, the entire chain is connected





# Customers owning and developing their own data



Secure accounting and  
holding together complex  
business flows



Create opportunities with  
new data sources,  
transparency in real-time



Influence and support  
customers' business  
models and working  
methods, support AI and  
automation



# 600 customers, good but challenging!

## Active support from Biometria

- Project support and training
- 6 pilots for experience and dialogue on the solution and testing
- Coordination of IT suppliers
- Communication!

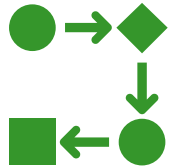




# Each member needs their own project



Skills  
Organization



Changing way of working  
Try new solutions



System adaptations at home



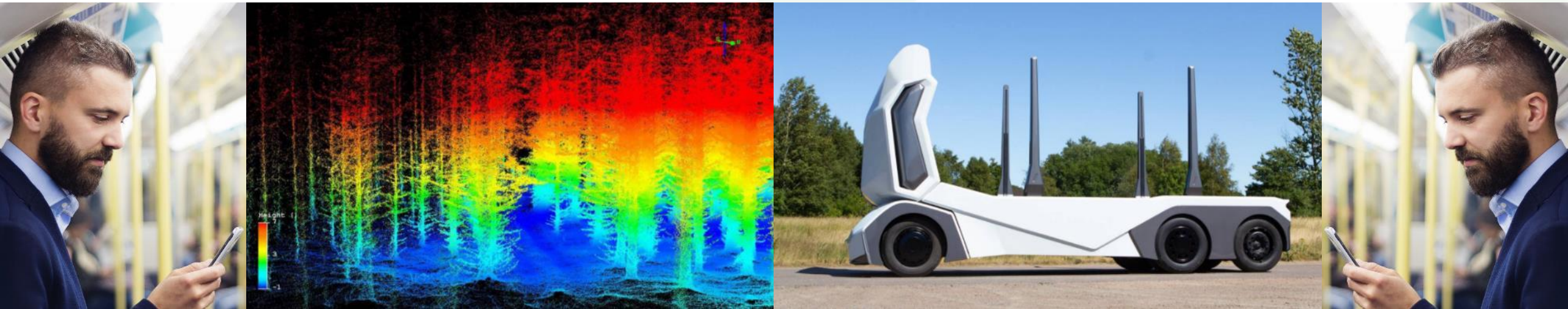
Enable IT suppliers  
Involve business partners



Common solutions  
for the industry



# We will be able to support the future!







## Wood Trade Accounting (WTA) "Certikonto"



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### **Lars Persson**

- Manager VIOL services
- Employed at SDC/Biometria since 2008
- Regional manager VMF Qbera 2004 - 2007
- Forest companies 1984-2004
  - Transport/Logistic
  - Supply chain manager for domestic & Import
  - Commodity manager
  - Logistic and store adviser when MoDo Mets started up in Estonia early 1990



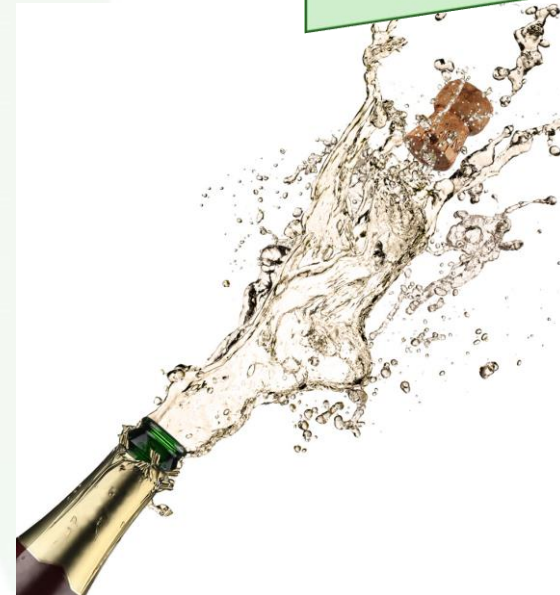


# History of WTA – “Certikonto”

In Sweden, most wood is measured by the independent measurement organization in order to ensure that:

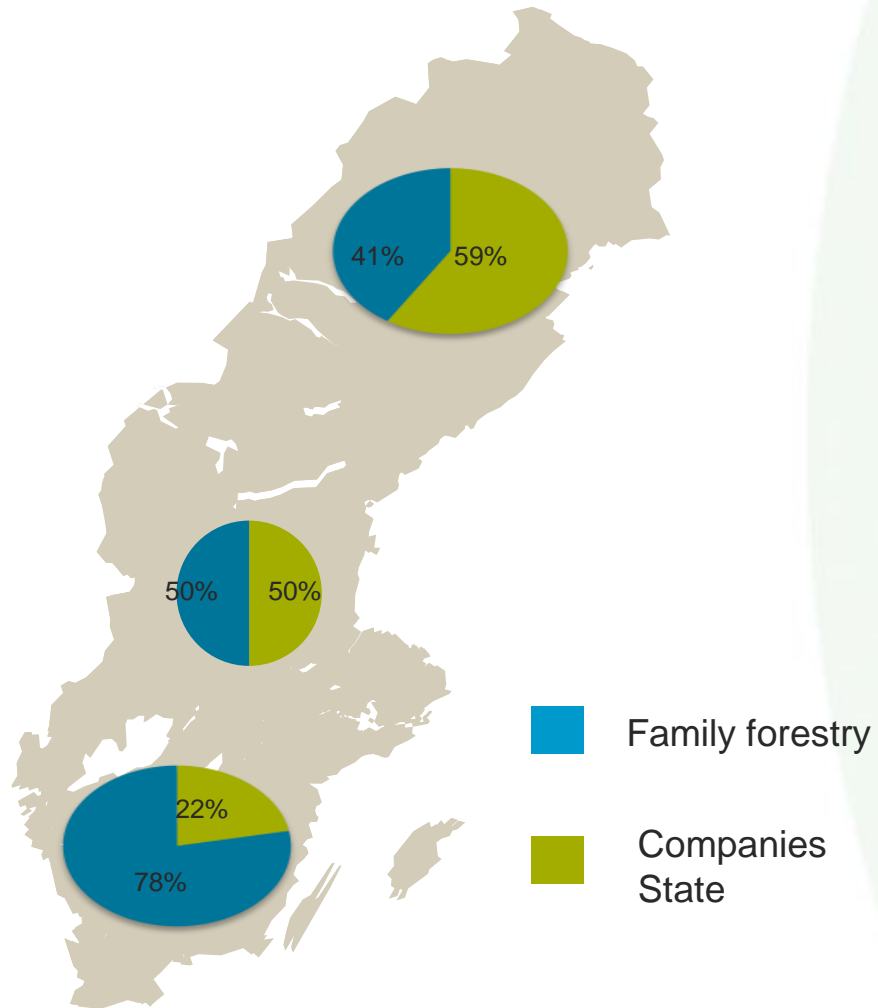
- correct volumes will be registered in the VIOL system
- forest owner and parties in every business link will get the correct payment and accounting

The idea of a digital and automatic **Wood Trade Account (WTA)** for administration of **environmental certified wood** - based on VIOL - was born around year 2000





# Ownership of Forest Land in Sweden



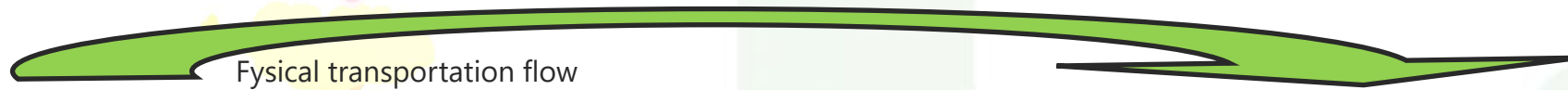
size, ha	number of forest owners
1-5	67 846
6-20	87 257
21-50	75 936
51-100	50 391
101-200	30 773
201-400	13 528
401-1 000	4 306
1 001-	765
	330 802

Due to WTA there is a incitement to increase the amount of certified forest owned by private forest owners

- Through the credit system and based on more certified forest, companies will be able to increase their FSC and PEFC production and also reduce the costs and CO2 emissions of wood transportation



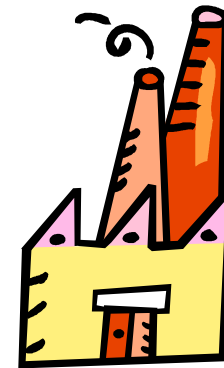
# A physical delivery of raw material.....



Part

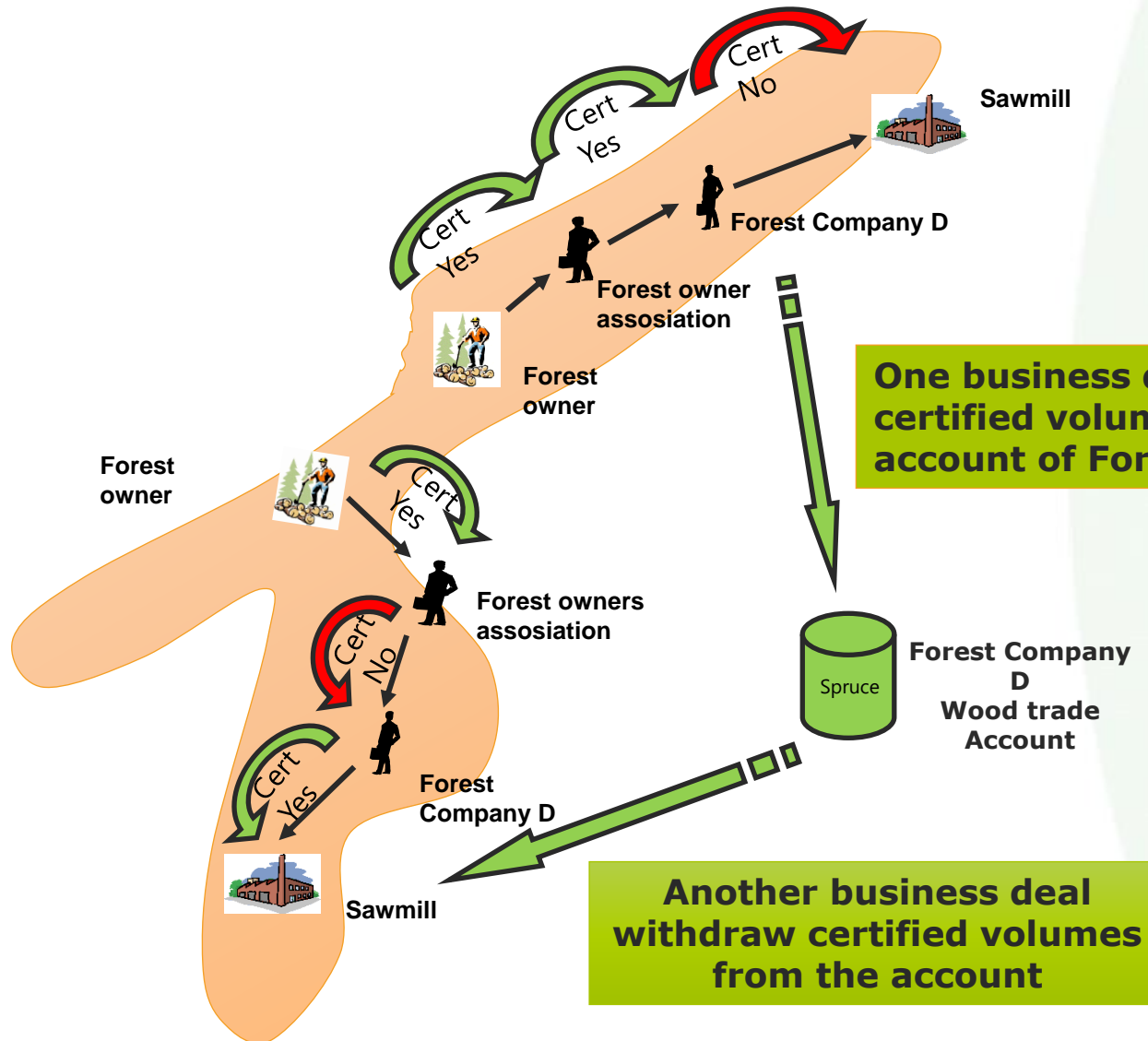


Part





...consists in this case of 3 business deals and thereby 3 links



So - the carrying ide with WTA is that inputs and withdrawals in the WTA-account doesn't have to correspond to actual time and places for the physical wood-flow!



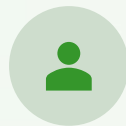
# Restrictions: Wood Trade Account (WTA) is only available for



Only wood from domestic sources can be registered in the WTA-system



Allowed primary products are logs and chips



Products have to be registered and controlled by a third party organization – most often VMF



Products should be linked to a defined physical wood flow



Only possible to take out products from your account with same quality and volume as those which were put in



All wood traded through the system is certified complying with the FSC definition of eligible inputs



Sales of certified products is only allowed when you have quantities registered in your WTA-account





# Contract information - Traceability

## Certification status of The original seller

Vikesorder: [ ] S Generation: 02 Vikesorderansvarig: [ ]

**Förstaleds kontrakt**

KontaktNr: [ ] KontGnr: 01 HKodS: [ ] HKodK: [ ]

Säljare: [ ] Köpare: [ ]

Intr2/lev: [ ] IntrNr: [ ]

OrgNr: [ ] OrgNr: [ ]

TeleNr: [ ] TeleNr: [ ]

Öppen säljare: [ ] Kontraktperiod: [ ]

Aktiv Uppdr: [ ] - Fr o m: 20090730

Bokf år: [ ] - T o m: 20110730

Säl / Köp: [ ]

Ursprung: 1 Egen skog Kontraktstart: 20090730 Valuta: SEK

Uppdrag: 1 Kontraktansv: [ ] Signatur: [ ]

LKF: 218405 ENÄNGER-NUUTÄNGER Status: [ ] AndDatum: 20090813 11:47

**Transportinformation**

Vedelag: Industrimätning

Avvektningsform: Avvektningsform okänd

Trädslädd i år: Trädslädd okänd

**Information**

Certifiering: 331

Avstånd leverantörsavdrag

Radnr	SSTE	Kvant	Mäl	PLista	Levår	Pen	PKod	PrisÅr	PrisPer	*Mottagare	*Mottpl	Mottpl klartext	KontPlst	KontPlstyp	*PromMottpl	TrpKns
00		0														035
01	499									03131-20000	592200	IGGESUND				
02	1000									03131-20000	592200	IGGESUND				
03	1900									03131-20000	592200	IGGESUND				
04	1030									03131-20000	592200	IGGESUND				
05	10M0									03131-20000	592200	IGGESUND				
06	5090									03131-20000	592200	IGGESUND				
07	1520									03131-20000	591413	HALLSTAVIK				
08	1520									03131-20000	591412	HALLSTAVIK				
09	1520									03131-20000	791410	HALLSTAVIK				
10	1000									02909-21000	590030	KORSNÄS GÅV				
11	1900									02909-21000	590030	KORSNÄS GÅV				
12	1000									02909-21000	535210	ÖSTERNÄS				

## Certification type

Forest management	Chain of Custody	Environment management
0 = No information	0 = No information	0 = No information
1 = PEFC	1 = PEFC	1 = ISO/EMAS
2 = FSC	2 = FSC	
3 = PEFC and FSC	3 = PEFC and FSC	

Coordinates is compulsory to ensure the origin of the products

Läge	Lägesrad klartext	Kartblad	Syd-Nord	Väst-Öst
1			6882297	445994
2			6882083	445477
3			6882130	444411
4				

Additionell information about county and district

Ursprung: 1 Egen skog Kontraktstart: 20200729 Valuta: SEK Omfattas av VML: [ ]

Uppdrag: 1 Kontraktansv: [ ] Signatur: [ ] Ombud: [ ]

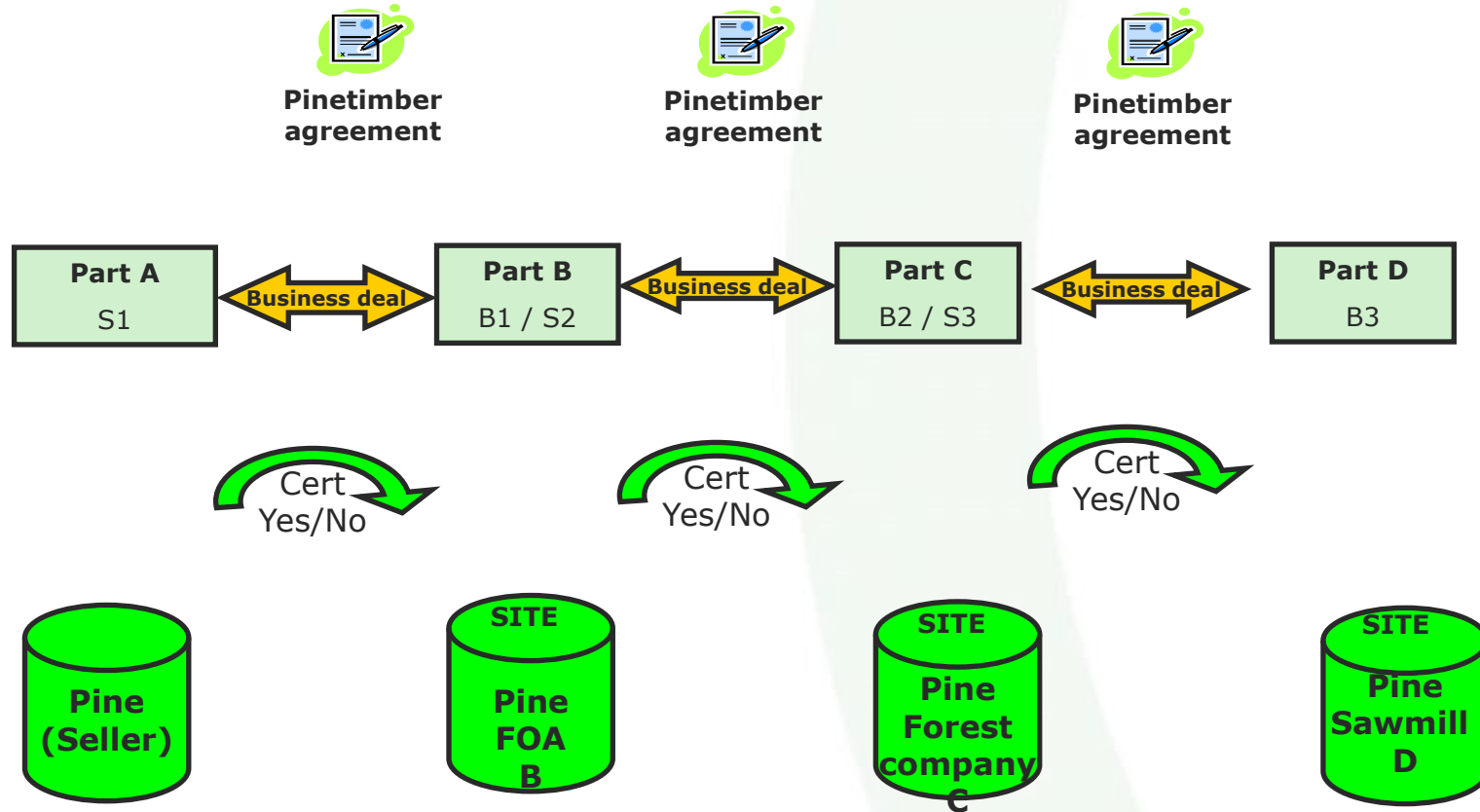
LKF: 236101 Status: [ ]

Radnr	SSTE	Kvant	Mäl	AvtM	PLista	Levår	Pen	PKod	PrisÅr	PrisPer	*Mottagare	*Mottpl	Mottpl klartext
00		0											
01	281	317	55	35							38504-38504	599870	BLYBERGSSÅG
02	011	224	55	35							13099-	599170	FISKARH TRÄ
03	012	6	55	35							00051-28100	396050	TUNADAL
04	100	333	55	55							06440-82000	535090	SVEG (STORA
05	103		55	55							03131-21000	592200	IGGESUND
06	100		55	55							03603-	598000	VALLVIK
07	100		55	55							00043-10800	338020	Ö-VALL TERM
08	100		55	55							03131-21000	592200	IGGESUND
09	012		55	55							00043-10800	338020	Ö-VALL TERM

The VIOL-system is the ground for WTA and is a good and safe help to secure and document traceability for EU traders who place timber products on the EU market for the first time, Its also a part of the DDS-system to exercise 'due diligence' according to requirement from EUTR.



# The VIOL-system administrates business deals and the accounts in the WTA



The physical measurement and transactions at each site are the base for handling deposits and withdrawals from volume accounts for each business deal

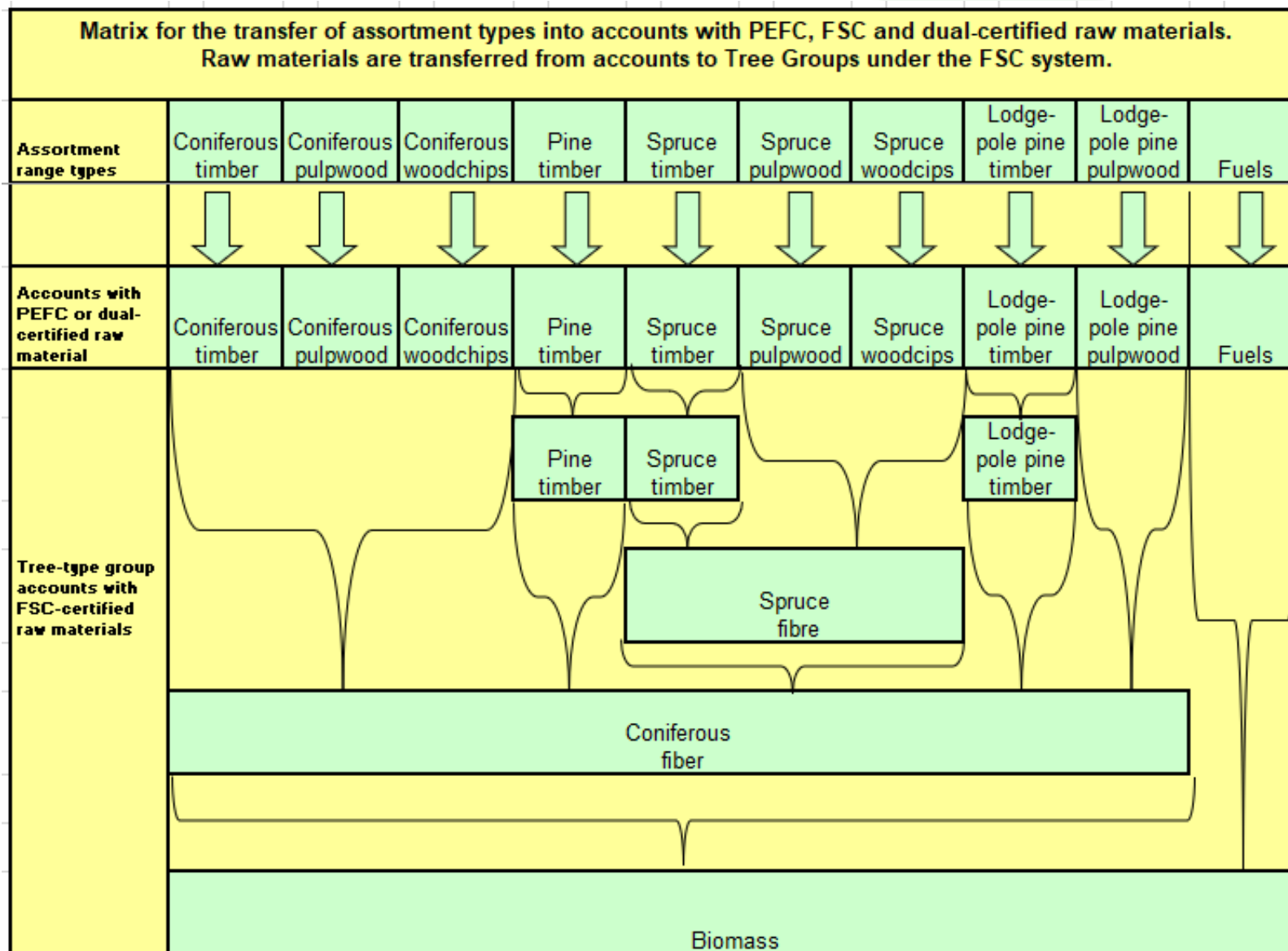


# Assortment range processing

- For PEFC and dual-certification assortments are grouped in assortment range types
- FSC further accumulates to FSC's levels in accounts (Pine sawlogs, Sprucesawlogs, Spruce fiber, Lodge-pole pine (Pinus Contorta), Coniferous fiber, Biomass, etc.).



# Coniferous accounts





# Summary

- The VIOL-system has a complete and secure infrastructure for handling deposits and withdrawals from volume accounts based on the concept that it is the physical measurement and measurement transactions that are the base.
- The wood trade accounting system supports the Swedish forestry in the administration of certified wood according to PEFC and FSC
- The fact that National Board of Forestry specifies measurement regulations in accordance with the Timber Measurement Act and that will be handled by Biometria is extremely important for the total solution and value to the industry and the forest owners