

IT development for timber flow support in Latvia

Let's enter in a digital transformation!

MĀRTIŅŠ GAIGALS

Tartu, September 12th, 2019

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DATA CENTER

Conclusions

A business environment: more complex and fast-moving than ever

globalization

resource scarcity

digital connectivity

disparate prosperity



accelerated consumption

ecological decline

| Megaforce | Indicator | % Change | Source |
|--------------------|--|-------------------|----------------------------|
| CLIMATE CHANGE | Energy-related CO ₂ emissions | +20 | IEA |
| | Mean temperature rise | 0.5-1.0 °C | IPCC & Others |
| ENERGY & FUEL | Primary energy demand | +33 | IEA |
| | Net electricity generation | +84 | EIA |
| MATERIAL RESOURCES | Raw materials extraction (excluding fossil carriers) | +55 | SERI |
| WATER | Demand for water withdrawals | +53 | 2030 Water Resources Group |
| | % Population under water stress | +39 | WEF |
| POPULATION | Total population | +20 | UN |
| | % Population 65 and older | +50 | UN |

| | | | |
|----------------------|------------------------------------|-------------------|----------------------|
| WEALTH | Middle-class purchasing power | +172 | OECD |
| | Real gross domestic product | +130 | Standard Chartered |
| URBANIZATION | Urban population | +44 | UN |
| | Urban land cover km ² | +110 | Seto, et. al. (2011) |
| FOOD SECURITY | Aggregate food demand | +50 | FAO |
| | Key staples food prices | +70 to +90 | Oxfam |
| ECOSYSTEMS | Terrestrial mean species abundance | -9 to -17 | CBD GLOBIO |
| | Human ecological footprint | +33 | GFN |
| DEFORESTATION | Net forest cover | -13 | OECD |
| | Amazon forest loss | +55 | WWF |

Main development trends

BIOECONOMICS

CIRCLE-ECONOMY

SHARING ECONOMY

Key development technologies

Advances that will transform life, business, and the global economy

12 (5) →



Mobile Internet

Increasingly inexpensive and capable mobile computing devices and Internet connectivity



Automation of knowledge work

Intelligent software systems that can perform knowledge work tasks involving unstructured commands and subtle judgments



The Internet of Things

Networks of low-cost sensors and actuators for data collection, monitoring, decision making, and process optimization



Cloud technology

Use of computer hardware and software resources delivered over a network or the Internet, often as a service



Advanced robotics

Increasingly capable robots with enhanced senses, dexterity, and intelligence used to automate tasks or augment humans

Major information technological developments



WORKER MOBILITY
AND THE DIGITAL
WORKPLACE



MOBILE DEVICES



SOCIAL MEDIA
USER EXPERIENCE



DIGITAL SECURITY



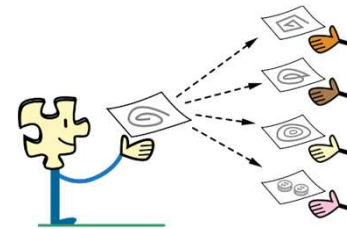
BIG DATA



USER EXPERIENCE



BUSINESS PROCESS
ORIENTED SOLUTIONS



SHARING AND
IS ARCHITECTURE

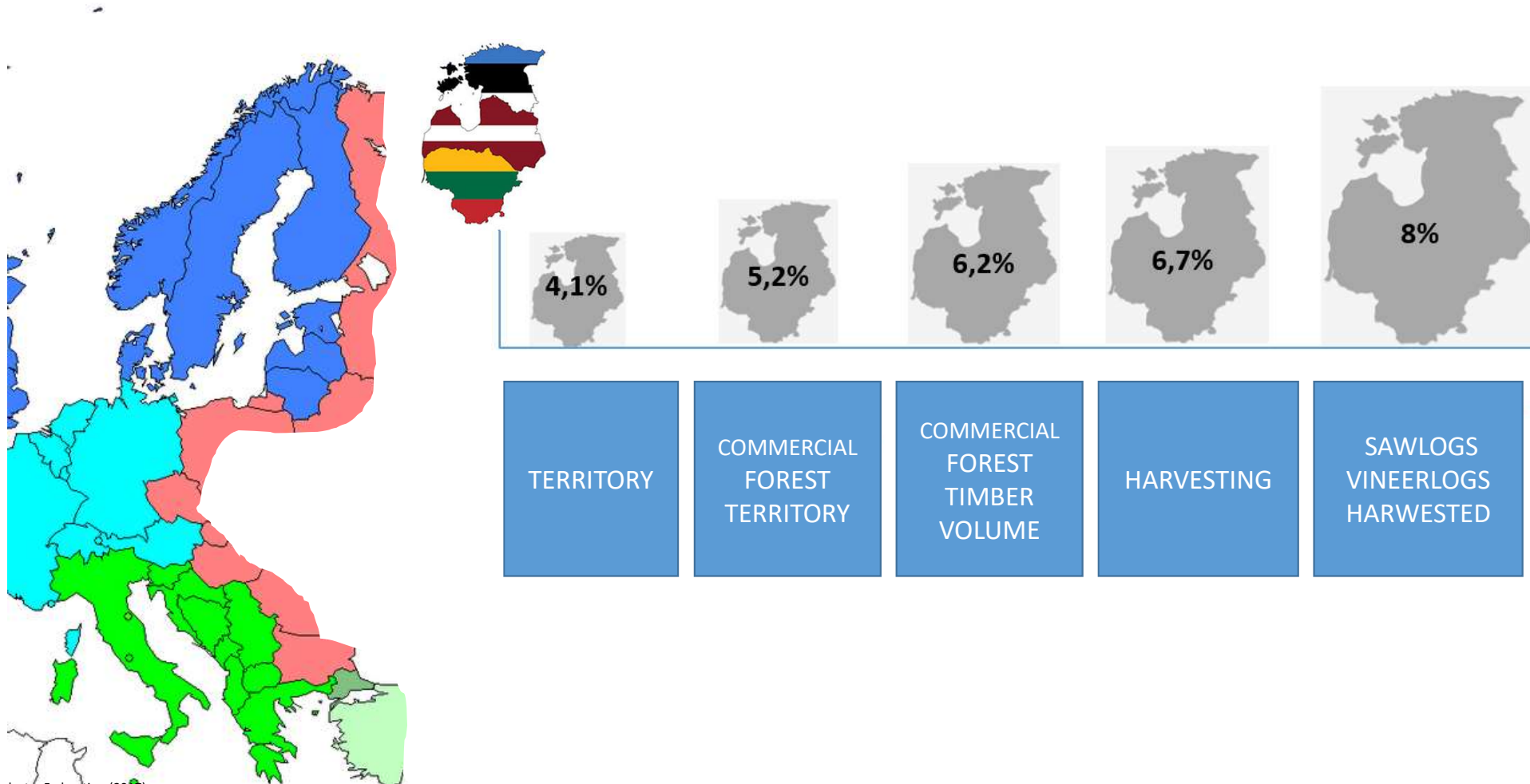
Traps of technological accessibility

«I can do it»

vs

« I have to do it »

Baltics: how significant ?

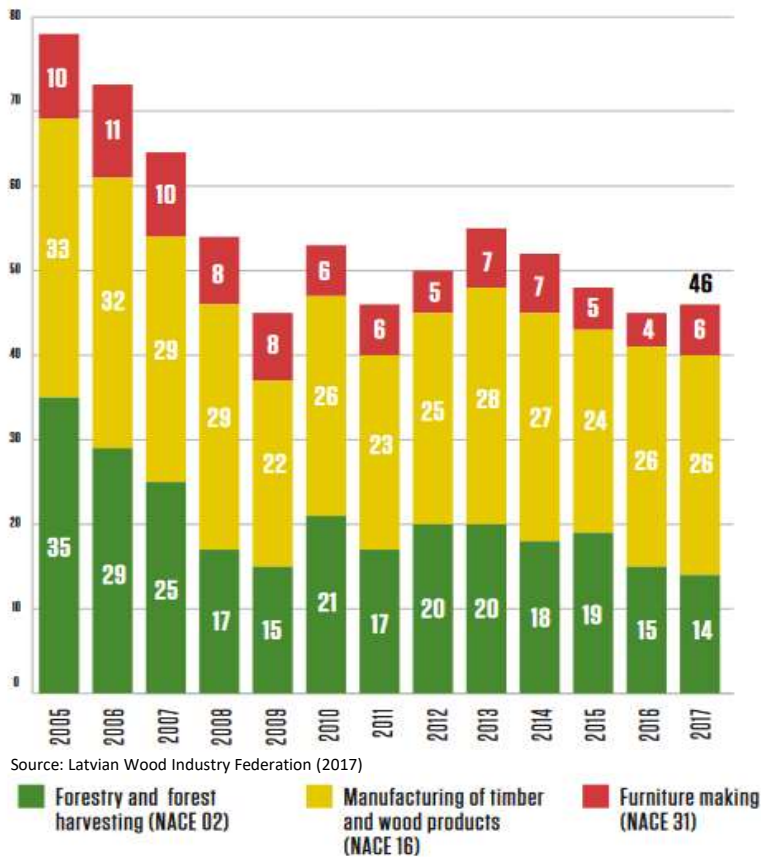


Source: Latvian Wood Industry Federation (2017)
UN «Composition of macro geographical (continental) regions, geographical sub-regions, and selected economic and other groupings» (2017)

COMMON CHALLENGES

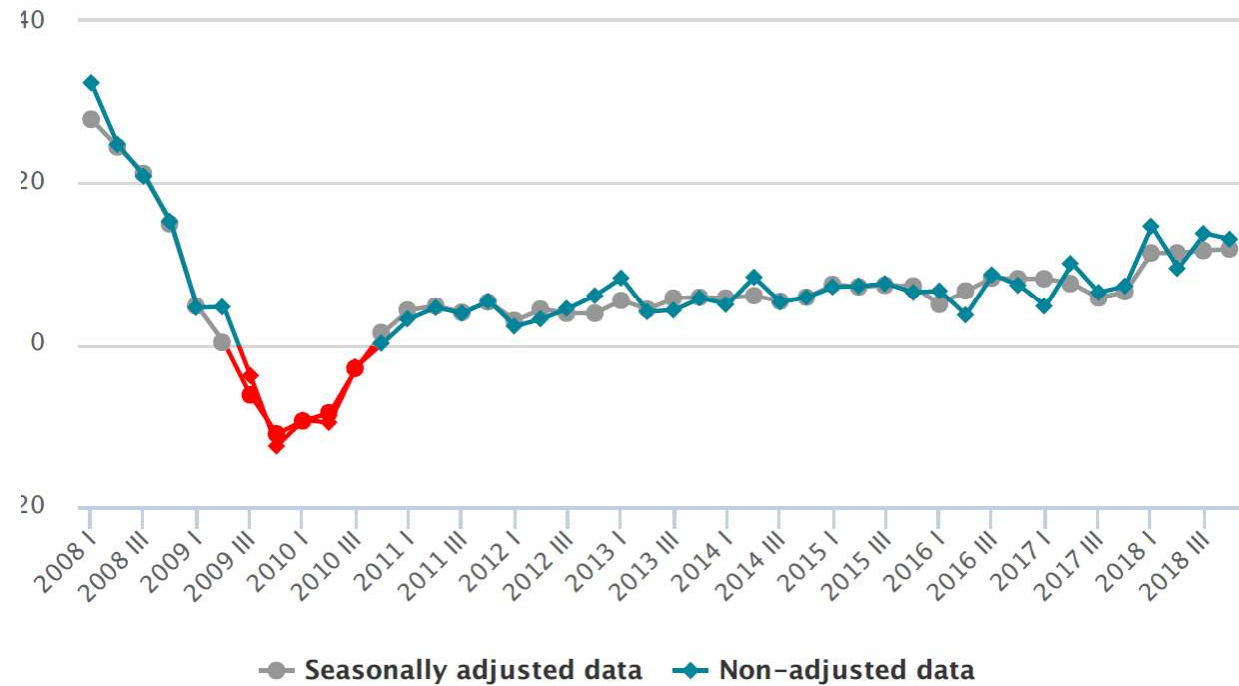


Employment in the forest sector (Thousand people)



Changes in hourly labour costs

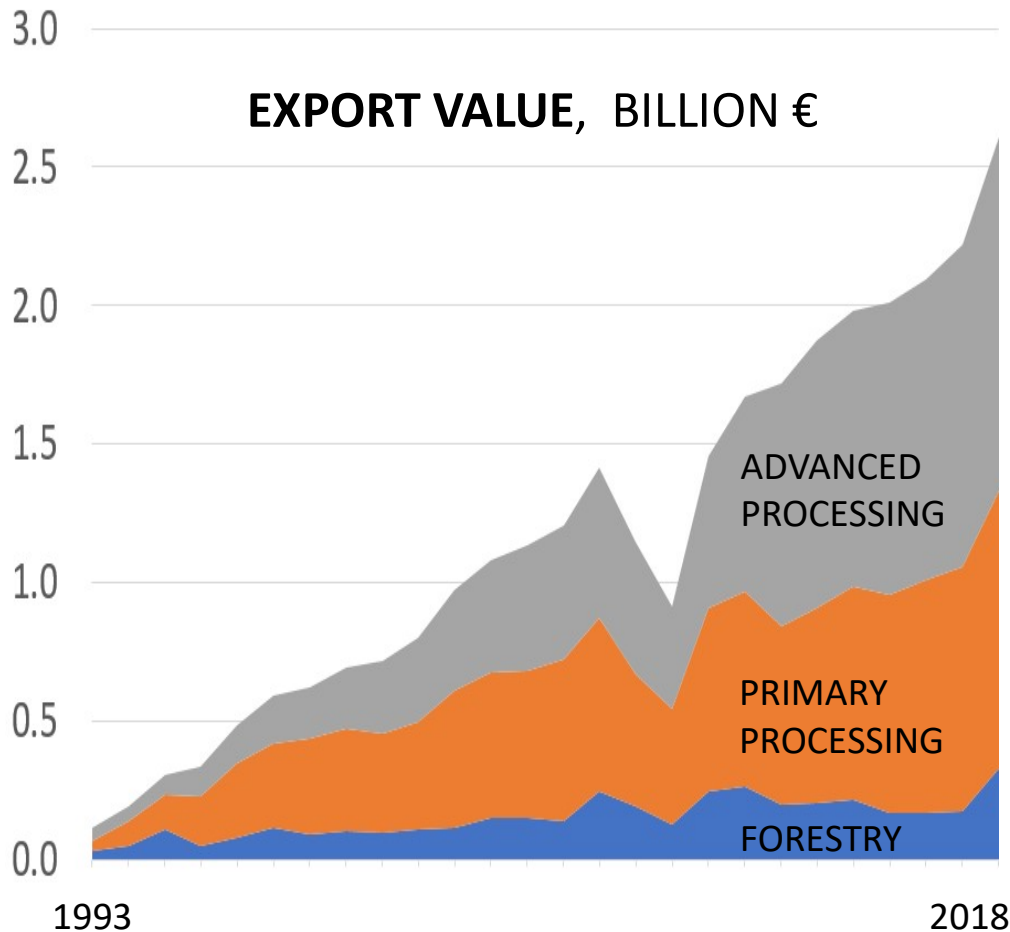
(as per cent, compared to the corresponding quarter of the previous year)



Refer to CSB database: DI030c

Latvia's forest sector at glance

EXPORT VALUE, BILLION €



- The forest sector is one of the cornerstones of the national economy at this time
- Forestry, wood processing and furniture manufacturing represented 4,8% of GDP in 2017
- Forests in Latvia take up 3.383 million hectares of land, or 52% of the country's territory
- One half of the forests belongs to apx 135.000 private forest owners
- An average of approximately 11 million cbm of timber have been harvested each year in Latvia's forests
- each Euro derived by the owner from the forest felling sales, Latvian forest sector multiplies six times



**MĒS VEIDOJAM
SAKOPTU, NEATKARĪGU
UN PĀRTIKUŠU
LATVIJU**



**MEŽU ZEME
LATVIJA**



Latvijas
KOKRŪPNIECĪBAS
federācija

Strategic decisions: Latvian experience of openness

COOPERATION

Voluntarily arrangement in which two or more entities engage in a mutually beneficial exchange instead of competing. Cooperation can happen where resources adequate for both parties exist or are created by their interaction.

Read more: <http://www.businessdictionary.com/definition/cooperation.html>

BERGVIK SKOG



LATVIJAS FINIERIS



Strategic decisions: Latvian experience of openness

- Do not compete with timber measurement
- Develop common classifiers and codes
- Use international data standard papiNet for business communication
- Analyze and develop business processes beyond the boundaries of a single company or supply chain
- Use shared IT support for high quality data processing and business communication

Strategic decisions: Latvian experience of openness

TIMBER MEASUREMENT

Do not compete with timber measurement:

- Ensure **parity** between timber buyers and sellers **50/50**
- **Define** measurements (cbm, quality etc) and accuracy
- Measure timber **at the industry** or transport terminal
- Run jointly a service giving **company**: VMF LATVIA

Timber Buyers' association of Latvia

Timber Sellers' association of Latvia

The Joint Advisory Council and Working Groups

Management of Latvian timber measurement and accounting, Ltd

Executive director:

Jānis Magaznieks

Mob. +371 26669793

E-mail: janis.magaznieks@lkuuv.lv

Address: Skaistkalnes iela 1, Riga, LV-1004, Latvia

www.lkuuv.lv

What is a data standart?



SOAP



BEER



Strategic decisions: Latvian experience of openness

DATA STANDART



The intelligent choice:

- MORE VALUE
 - SAVE TIME AND MONEY THROUGH PROCESS IMPROVEMENTS
 - MORE THEN 500 WORLD CLASS COMPANIES WITHIN FORESTRY AND INDUSTRY
- EFFICIENCY
 - TAKE COST OUT OF THE SUPPLY CHAIN BY USING STANDARTIZED E – DOCUMENTS
- GET INVOLVED
 - COMPANIES BOTH BIG AND SMALL CAN BENEFIT THROUGH PARTICIPATION

N.B.! OWN CLASSIFYERS AND CODES OF LATVIAN TIMBER SELLERS AND BAYERS

www.papinet.org

Latvia's representative at papiNet Forest Wood Supply

Mr. Ivars Kalmuks

ivars.kalmuks@kpdc.lv

Strategic decisions: Latvian experience of openness

IT SOLUTIONS

DACE: Information solution for intelligence of business documents' flow

Investor: Timber Bayers' association of Latvia

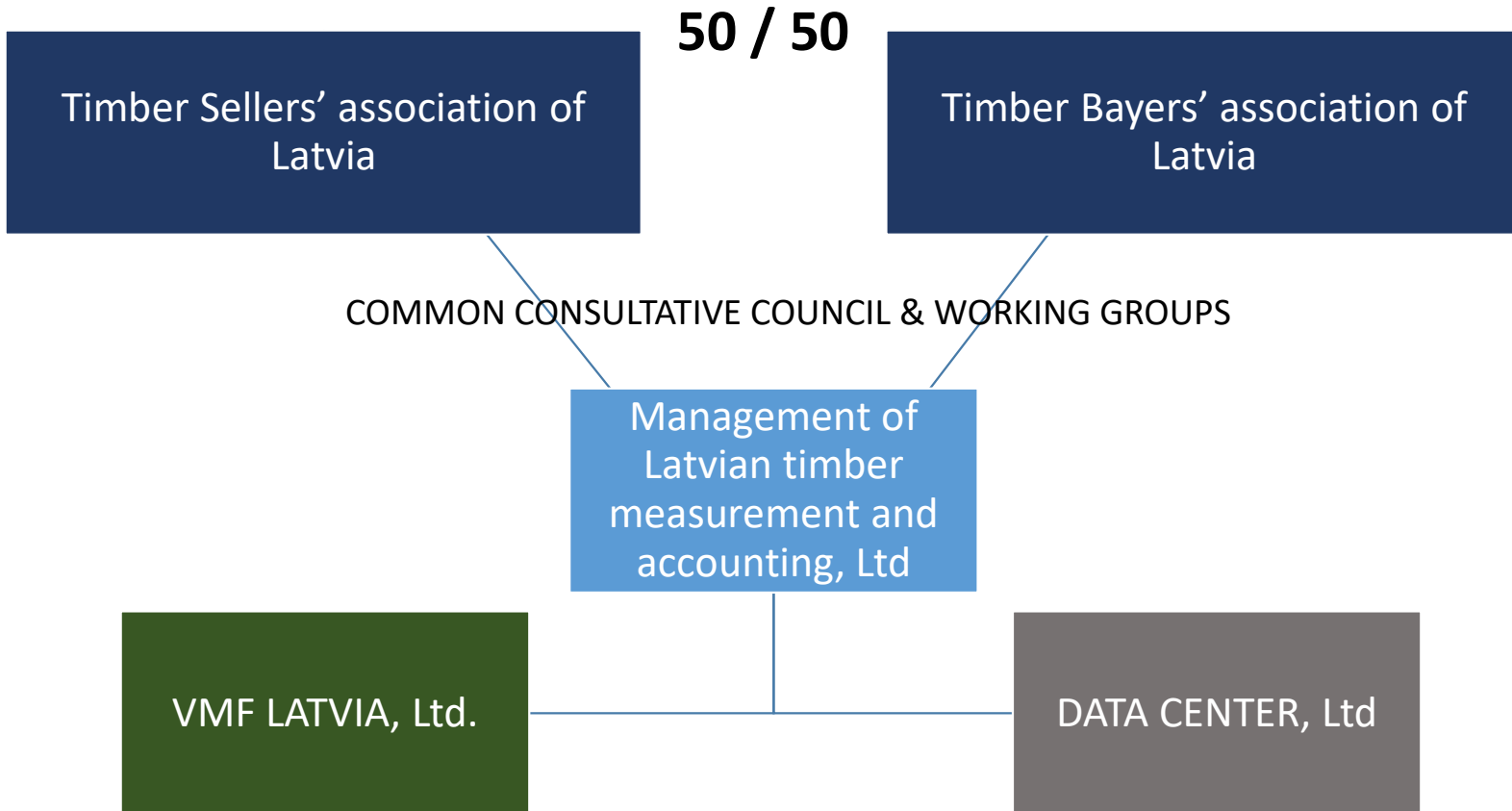
Timber Sellers' association of Latvia

Operator: Data Center



VMF LATVIA

DEVELOPMENT ROUTE, CHALLENGES, SOLUTIONS



VMF LATVIA


DEVELOPMENT ROUTE, CHALLENGES, SOLUTIONS



THE LAB ACCREDITED BY LATVIA'S STATE AND SWEDISH BUSINESS

LVS EN ISO/IEC
17025:2005

LVS 82:20030



LATVIJAS NACIONĀLAIS AKREDITĀCIJAS BIROJS
Eiropas Akreditācijas kooperācijas Daudzpusējā atzīšanas līguma (EA MLA) dalībnieks
testēšanas un kalibrēšanas laboratoriju, produktu, personu un pārvaldības sistēmu
sertificēšanas institūciju, inspicēšanas un verificēšanas institūciju akreditācijas jomās

AKREDITĀCIJAS APLIECĪBA

Valsts aģentūra
"Latvijas Nacionālais akreditācijas birojs"
ar šo apliecina, ka

Sabiedrība ar ierobežotu atbildību "VMF LATVIA"
Juridiskā adrese: Skaistkalnes iela 1, Rīga, LV-1004

ir kompetenta veikt testēšanu atbilstoši standartā
LVS EN ISO/IEC 17025:2005 prasībām nereglamentētajā sfērā:
cietās biodegvielas paraugu ņemšana un fizikālā testēšana
atbilstoši LVS EN ISO/IEC 17025:2005 standartā prasībām un Ministru kabineta
noteikumiem reglamentētajā sfērā:
apako kokmateriālu uzmērīšana

Akreditācijas apliecība derīga līdz 2019. gada 14. decembrim.
Akreditētā darbības sfēra nereglamentētā un reglamentētā sfēra ir definēta pielikumā uz
2 lapām, kas ir šīs akreditācijas apliecības neatņemama sastāvdaļa.
LATAK reģistrācijas Nr. LATAK-T-296-15-2006

Rīga, 2018. gada 13. novembris

S. Bērziņa
Valsts aģentūras "Latvijas Nacionālais
akreditācijas birojs" direktore p.i.

U. Zilbere
Akreditācijas komisijas
priekšsēdētājs



VMR koksnes mērīšanas un uzskaites padome

**AUTORIZĀCIJAS
APLIECĪBA**

Uzņēmums VMF Latvia SIA

ar Koksnes mērīšanas un uzskaites padomes
lēmumu ir autorizēts veikt koksnes uzmērīšanu un uzskaiti no
has been authorised by the Swedish Timber Measurement Council to conduct
timber measurement and accounting in accordance with a decision dated

2003. gada 21. augusta.

Tor Marntell
Tor Marntell
vadītājs
Manager

Kristian Olofson
Kristian Olofson
priekšsēdētājs
Chairman

Autorizācijas sfēra un noteikumi ir norādīti lēmumā par
autorizācijas piešķiršanu, kā arī Koksnes mērīšanas un
uzskaites padomes autorizācijas noteikumos.

The scope and terms of authorisation are presented in the authorisation
decision and the Swedish Timber Measurement
Council's regulations for authorisation.

Autorizētam uzņēmumam ir tiesības
izmantot zemāk redzamo zīmi
The authorised organisation is entitled
to use the symbol below.

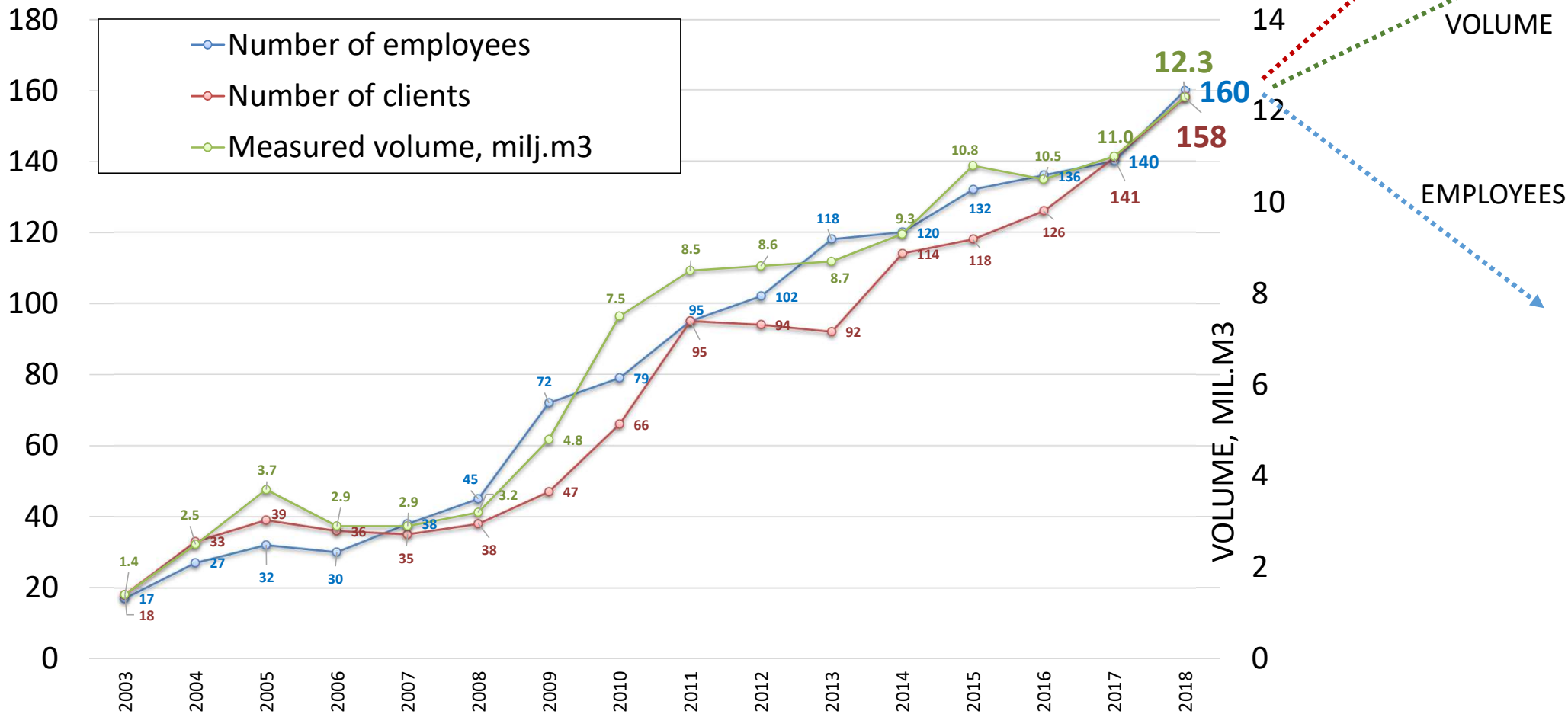


Swedish Timber
Measurement Council

VMR

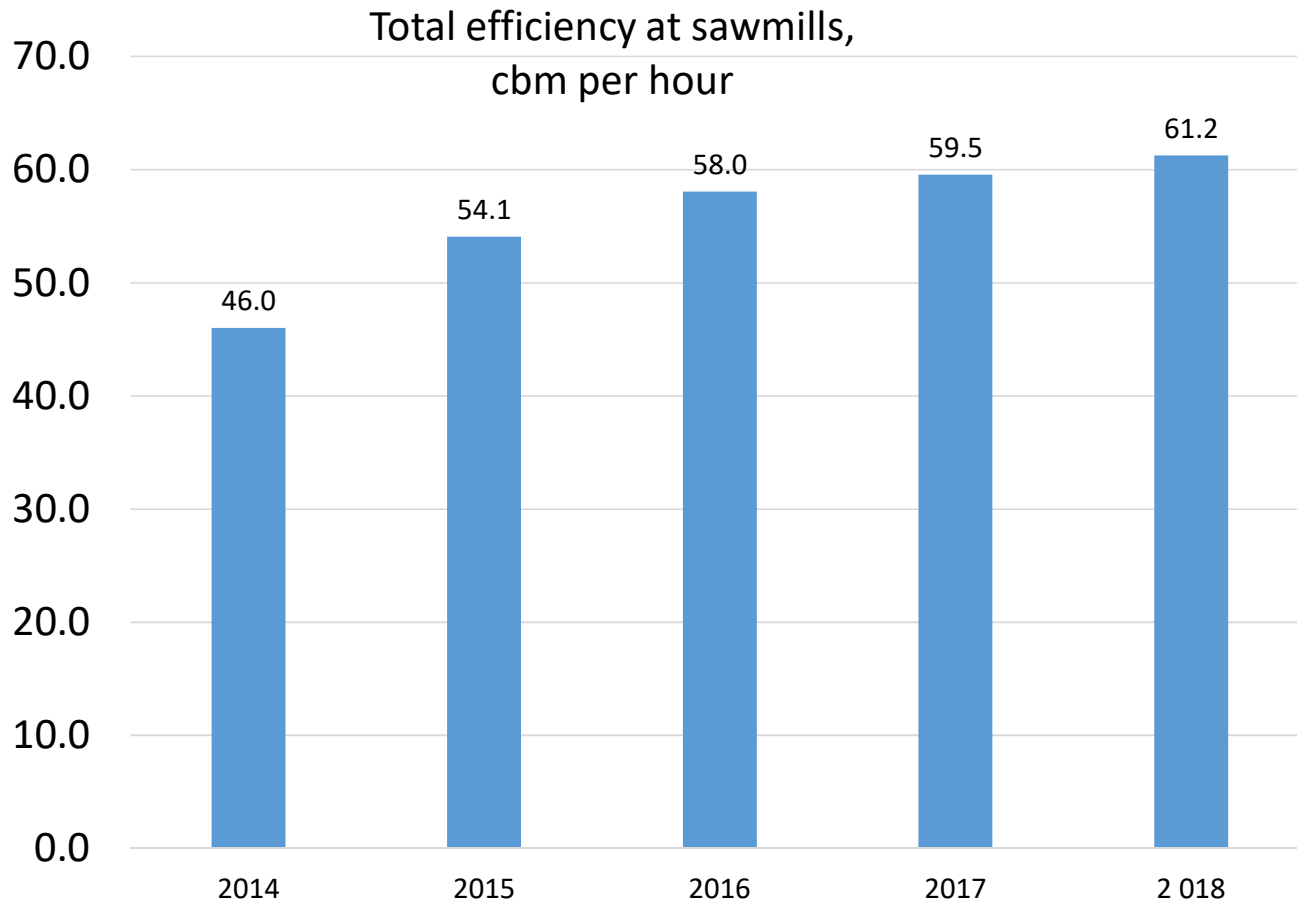
VMF LATVIA

DEVELOPMENT ROUTE, CHALLENGES, SOLUTIONS



VMF LATVIA

DEVELOPMENT ROUTE, CHALLENGES, SOLUTIONS



REPORT

2 DAYS → 2 MINUTES



.XML DIGITAL FILES



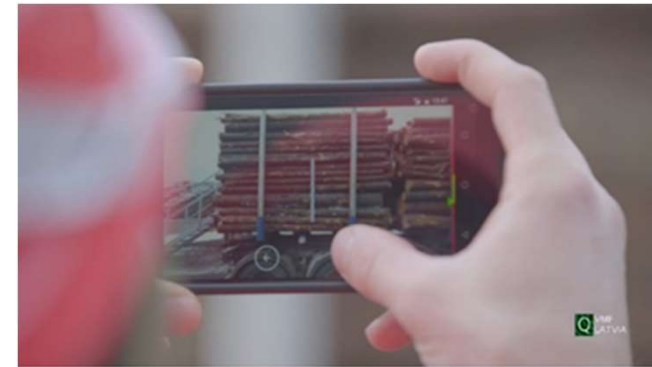
VMF LATVIA

DEVELOPMENT ROUTE, CHALLENGES, SOLUTIONS

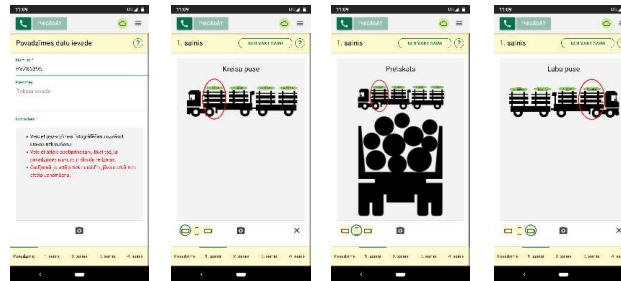
TRANSPORT COSTS OF VMF LATVIA ARE FULLY REDUCED DOWN TO ZERO

1. Mobile Phone with

- Android OS (5.1 +)
- Camera (5 MP+)
- Gyroscope
- GPS
- 4G connection

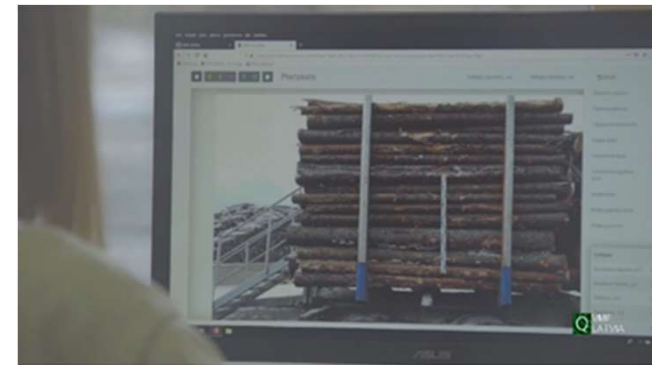


2. VMF Mobile Photo app



3. Reference measurement scale

- 1 m length
- Scale pattern for visibility

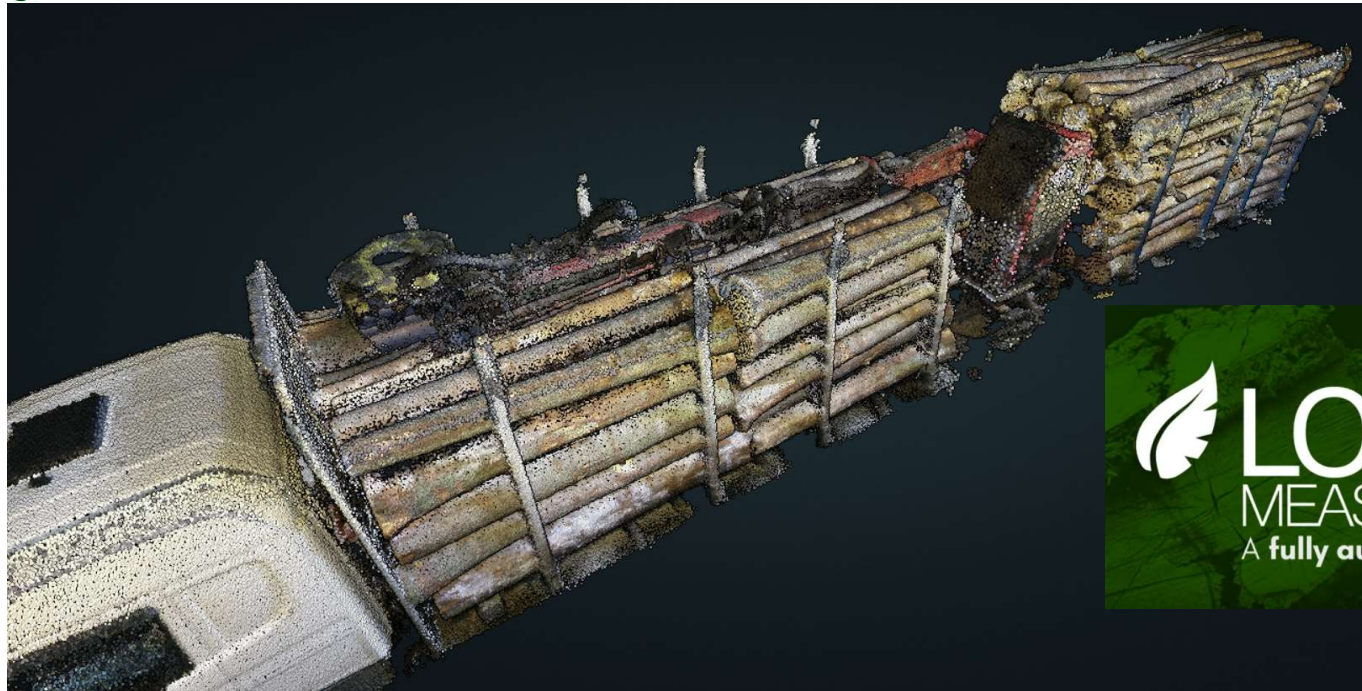


VMF LATVIA

DEVELOPMENT ROUTE, CHALLENGES, SOLUTIONS

2019 COSTS OF VMF LATVIA SERVICE ARE REDUCED DOWN **5,3 TIMES**

grāanul invest



 **LOADMON**
MEASURE IT
A fully automated load measuring system

VMF LATVIA

DEVELOPMENT ROUTE, CHALLENGES, SOLUTIONS



THE FUTURE BELONGS TO AUTOMATION:

- Automation of quality assessment of timber
- Automation of stack measurement
- Reduction of human factor in timber measurement and quality evaluation

www.vmf.lv
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vmflatvia@vmf.lv
Skaistkalnes iela 1
Rīga, LV-1004, Latvia

DATA CENTER

TO MAKE BUSINESS MORE TRANSPARENT, UNDERSTANDABLE AND EFFECTIVE



KOKSNES
PLUSMAS
DATU CENTRS



digital circulation of business documents (2019)

DELIVERY INSTRUCTION *transport order*

DELIVERY MESSAGE *e waybill*

SHIPMENT STATUS *also ownership*

MEASURING TICKET *measuring report*

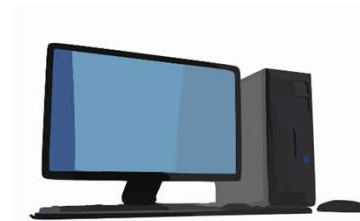


foto: www.sligarm.lv



DATA CENTER

TO MAKE BUSINESS MORE TRANSPARENT, UNDERSTANDABLE AND EFFECTIVE



KOKSNES
PLŪSMAS
DATU CENTRS



digital circulation of business documents:



MONEY

TIMBER



PLANNING
CONTROL



ACCOUNTING
INVOICING



STOCK
MANAGEMENT

ARE YOU READY?

DATA CENTER
Koksnes plūsmas Datu Centrs Ltd.
www.kpdc.lv
Skaistkalnes iela 1, Rīga, LV-1004

CONCLUSIONS

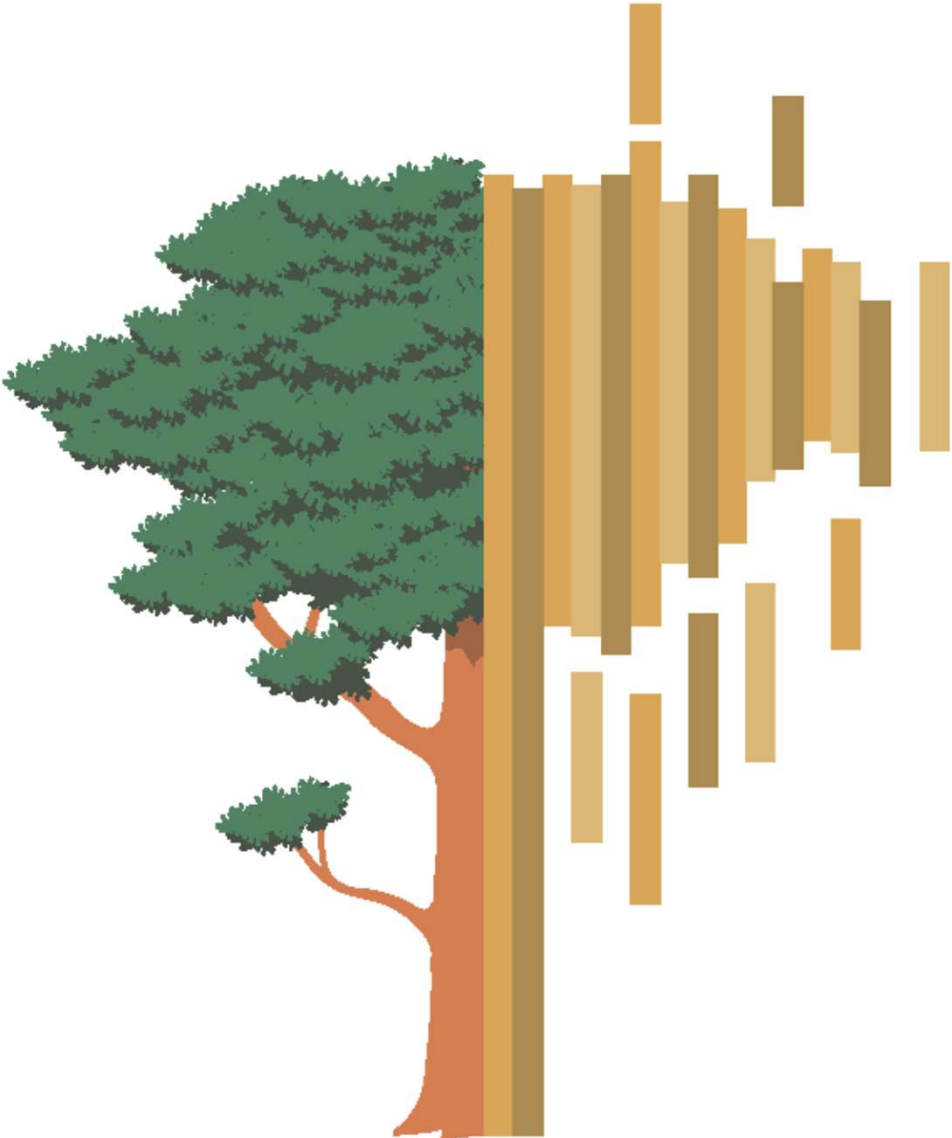
- ✓ REGIONAL COOPERATION AND INTEGRATION IN DIGITAL TRANSFORMATION MAY BE USEFUL IN GLOBAL COMPETITION
- ✓ A SIMPLIFIED NATIONAL REGULATORY ENVIRONMENT CAN INCREASE BUSINESS RESPONSIBILITY AND MOTIVATION
- ✓ STANDARDIZATION, HIGH QUALITY OF DATA AND MASTER DATA ARE NEEDED FOR THE EFFICIENT USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES

*«The present is rapidly moving
past and it is a continuous process»*



Foto: Aldis Dubjans

Vilnis Auziņš,
photographer



KOKSNES
PLŪSMAS
DATU CENTRS