

ETTEVÕTLUS- AKADEEMIA

Loengusari alustavale ettevõtjale

**TAL
TECH**
MAJANDUSTEADUSKOND

 **Tallinn**

TASUTA!





DIGITAALSED TARNEAHELAD JA PABERIVABA RAHVUSVAHELINE LOGISTIKA - millal ja kuidas?

Ulrika Hurt
Majandusteaduskond, ärikorralduse instituut
Tallinna Tehnikaülikool

17. veebruar 2022



TÄNA

- Tarneahelate paberivaba tulevik, juba 2025
- Euroopa Liidu nõuded
- Ettevõtete võimalustest
- Mis veel 2022-2025-2030 tuleb?
- Uued vajaminevad teadmised

ULRIKA HURT

**TAL
TECH**



ULRIKA HURT



Istituto di Tecnologie Industriali e Automazione
Consiglio Nazionale delle Ricerche



REPUBLIC OF ESTONIA
MINISTRY OF ECONOMIC AFFAIRS
AND COMMUNICATIONS





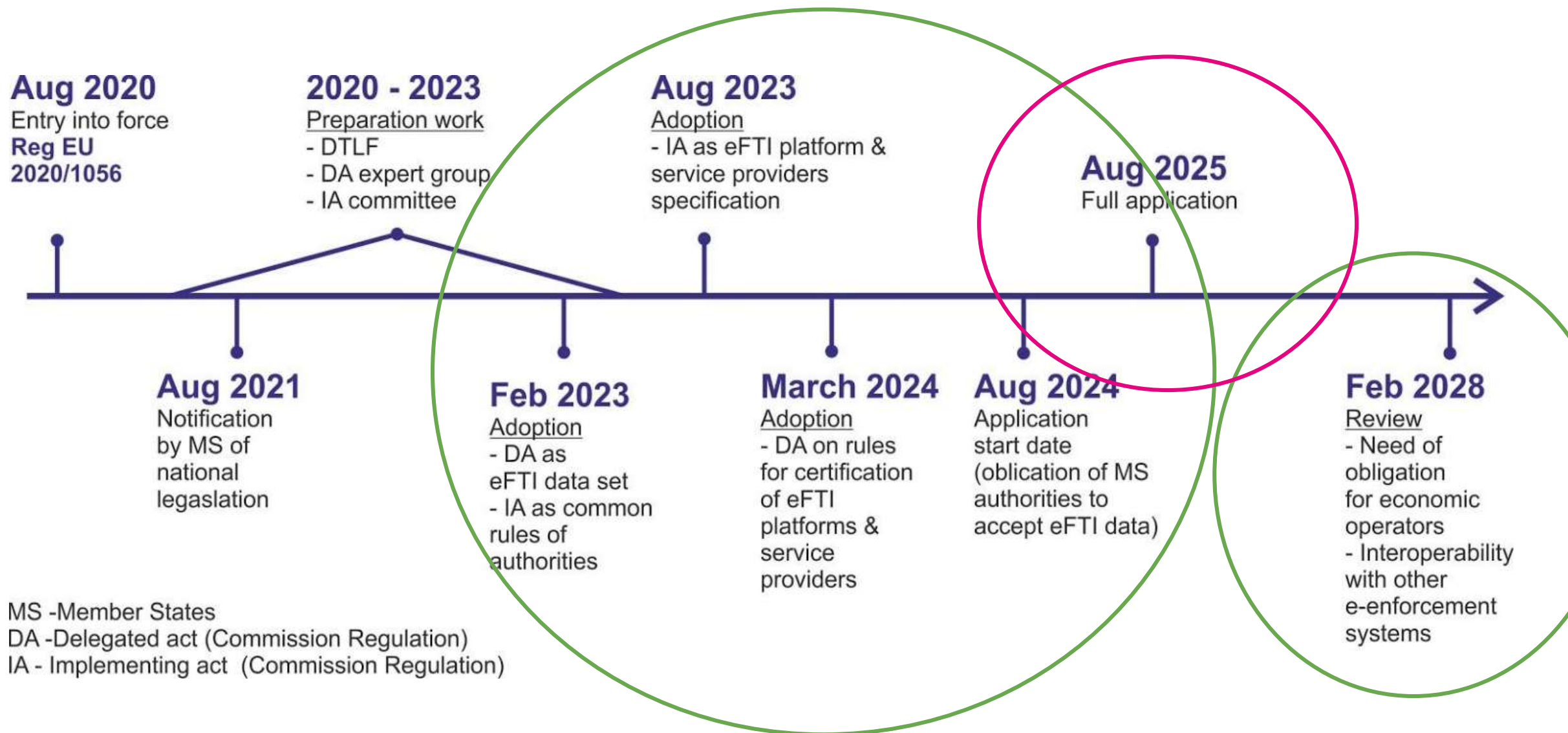
DIGITAALSED TARNEAHELAD





EUROOPA ja PABERIVABA logistika

eFTI määrus KOHUSTUSLIK AASTAKS 2025



Real-Time Economy

From Plan to Practice!



EU Regulation 2020/1056 on electronic freight transport information (eFTI)

An overview

Real-Time Economy Conference, Tallinn
8 December 2021

0:12 / 17:52

0 DISLIKE SHARE SAVE ...

Lia Potec - European Commission View on eFTI and Relevance

25 views • Dec 21, 2021



Majandus- ja Kommunikatsiooniministeerium
235 subscribers

SUBSCRIBE

TAL
TECH

[LINK](#)
TALLINNA TEHNIKAÜLIKOOL



1:22 / 2:22

smart digital architecture and a common set of
services, following agreed principles of governance.



[LINK](#)



DIGINNO-Proto

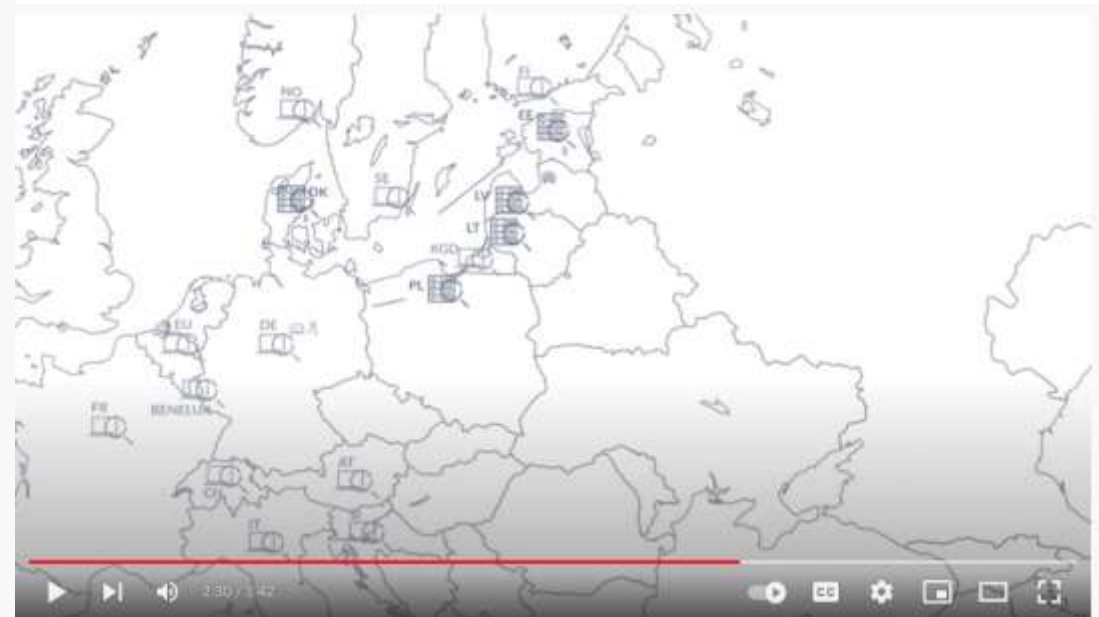
406 views • Nov 25, 2020

 5
  DISLIKE
  SHARE
  SAVE
 ...



Majandus- ja Kommunikatsiooniministeerium
 226 subscribers

SUBSCRIBE



eCMR indexing prototype between Estonia, Latvia, Lithuania and Poland (LONG VERSION)

45 views • Dec 21, 2021

 1
  DISLIKE
  SHARE
  SAVE
 ...



Majandus- ja Kommunikatsiooniministeerium
 235 subscribers

SHOW MORE

SUBSCRIBE

DIGINNO-Proto - YouTube



TALLINNA TEHNIKAÜLIKOOL

LINK: DINNOCAP 2021





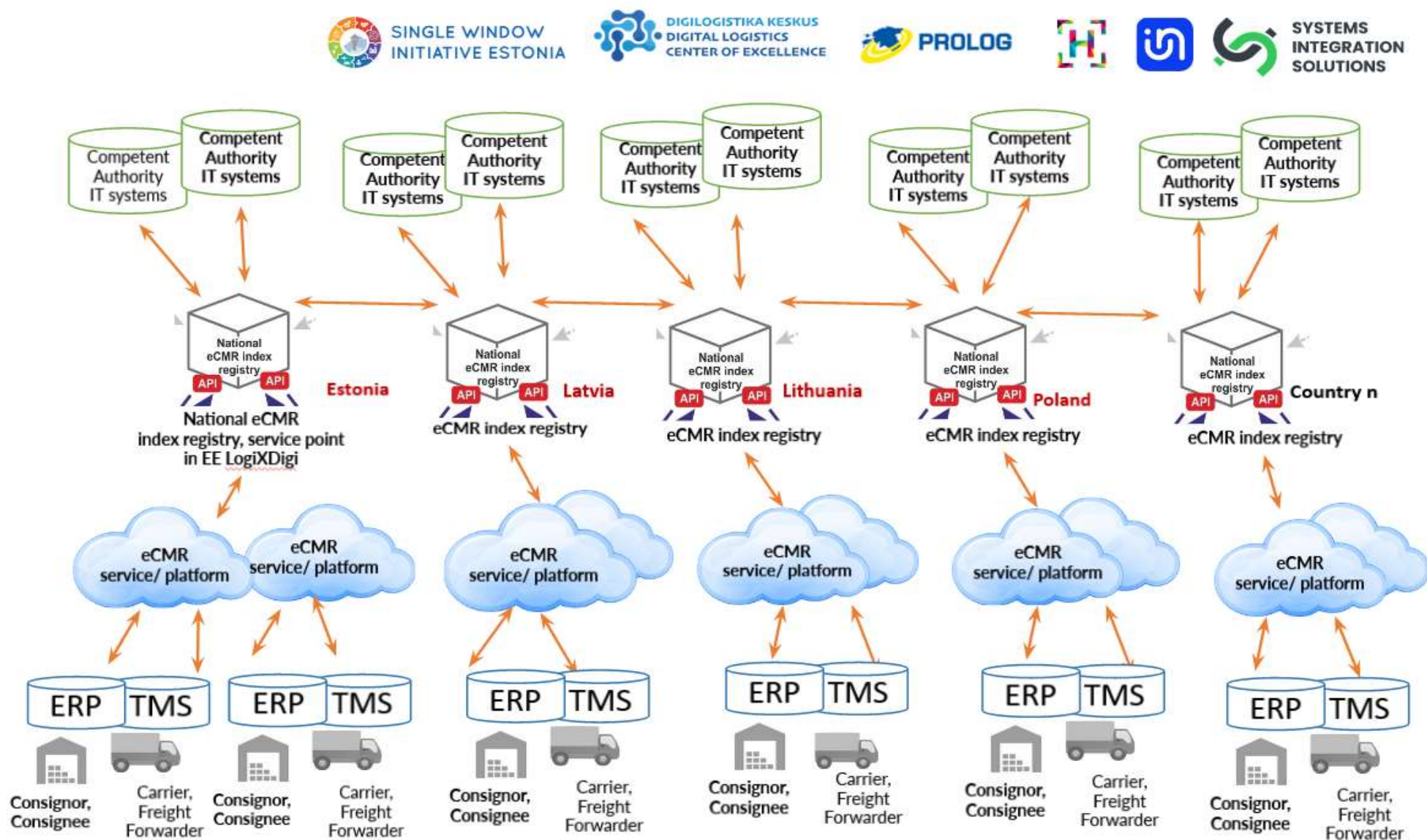
cross-border eCMR INDEX REGISTRY: GENERIC ARCHITECTURE



PUBLIC SECTOR



PRIVATE SECTOR





PUBLIC SECTOR

PRIVATE SECTOR

Ministry of Foreign
Affairs and Consular Affairs

Interreg
Digital Twin Region



DINNOCAP



SINGLE WINDOW
INITIATIVE ESTONIA



DIGITAL LOGISTICS CENTER OF EXCELLENCE

PROLOG



SYSTEMS
INTEGRATION
SOLUTIONS



Police

Road
Authority

Customs
Authority



Tax/Revenue
Authority
Rescue
Board

Public e-services &
authorised control
gateway/Query site

CROSS-BORDER INFORMATION SHARING AND QUERY ARCHITECTURE for eCMR INDEXING



NETWORK of eCMR index
registries/nodes
Query network



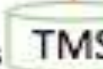
eCMR index registry

e-CMR
service provider

Cargo owners -
sender(s)
(Consignor)



Forwarders



Carriers
Hauliers



Cargo owners,
Cargo receiver(s)
(Consignee)

Interreg
Digital Twin Region



DINNOCAP



Ministry of Foreign
Affairs and Consular Affairs



ÜHILDUVUS MAAILMAGA

- UNECE/UNCEFACT võrreldavus ja CMR konventsiooni rakendamine
- Tollindus - World Customs Organisation (WCO) ja EL tollireeglid
- Merenduse - International Maritime Organisation (IMO)
- Lennundus – IATA ja ICAO
- Raudtee - CIM, SMGS
-
- Euroopa väljaspool EL-i
- EL kandidaatriigid
- Suur-Britannia
-
- Venemaa ja SRÜ riigid
-
- ASEAN, sh. Hiina, Singapur
- Austraalia ja Uus-Meremaa
- Ladina-Ameerika
- USA, Kanada





REAALAJAMAJANDUSE TOETUSMEETMETEST

- **Eesmärk:** toetada reaalajas lahenduste arendust ja kasutuselevõttu ettevõtjates halduskoormuse vähendamiseks
- **Ajakava:** 2022 – 2027
- **Toetusmeetmete maht** perioodil 2022 – 2027 on kokku ca 15 milj eurot
- **Rahastusfondid:** RRF (Taaste- ja vastupidavusrahastu), SF 21+ , TA (teadusarendusfond)

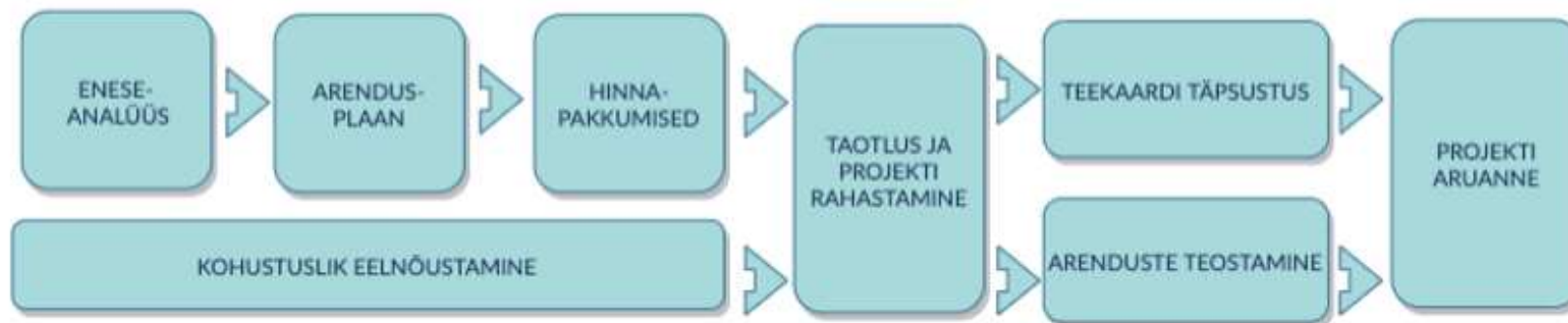




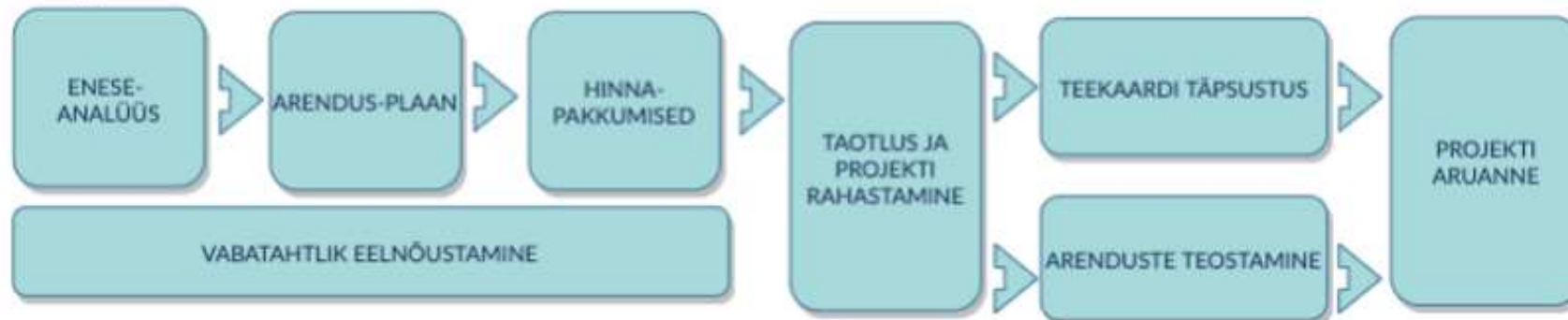
TULEKUL TOETUS ETTEVÕTETELE: E-CMR TEENUSE ARENDUS ECMR KASUTUSELEVÕTT



I Tegevussuund

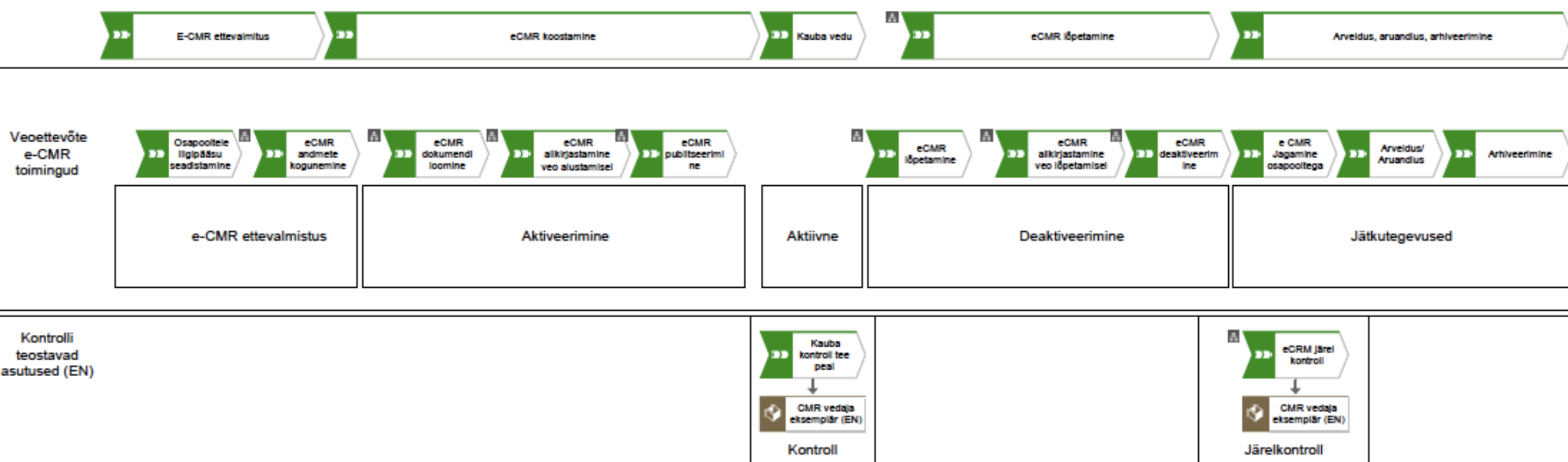


II Tegevussuund



eDOKUMENDI ja eVEOSELEHE ELUTSÜKKEL

eCMR ettevalmistus, koostamine, vedu, lõpetamine, jätkutegevused



JOONIS:



MIS AASTAKS ENNUSTATE EUROOPAS TÄIS- PABERIVABA LOGISTIKAT TEIE?

2024 2030
2035 2040 2032
2037 2027



MENTI.com
1865 2641





TAL TECH

**MIDA ON VAJA OSATA JA TEADA?
et olla 2030ks valmis**



OSATA VALDKONNA TEHNOLOOGIA- TRENDE UURIDA

Hype Cycle for Supply Chain Execution Technologies, 2020



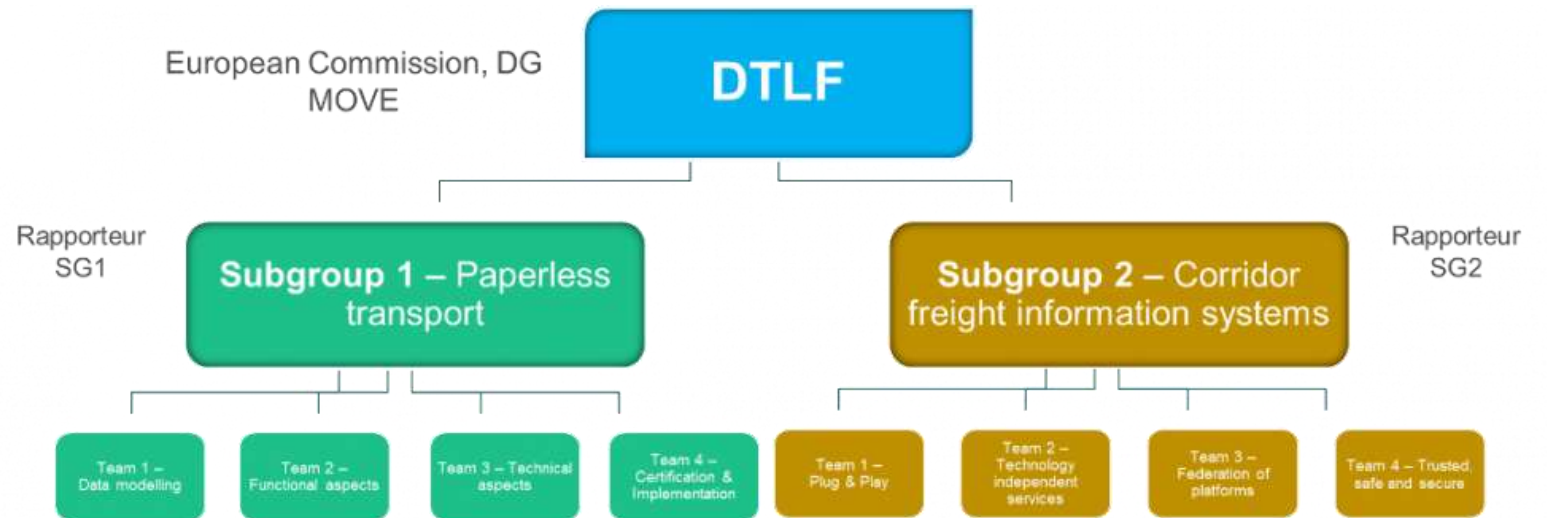
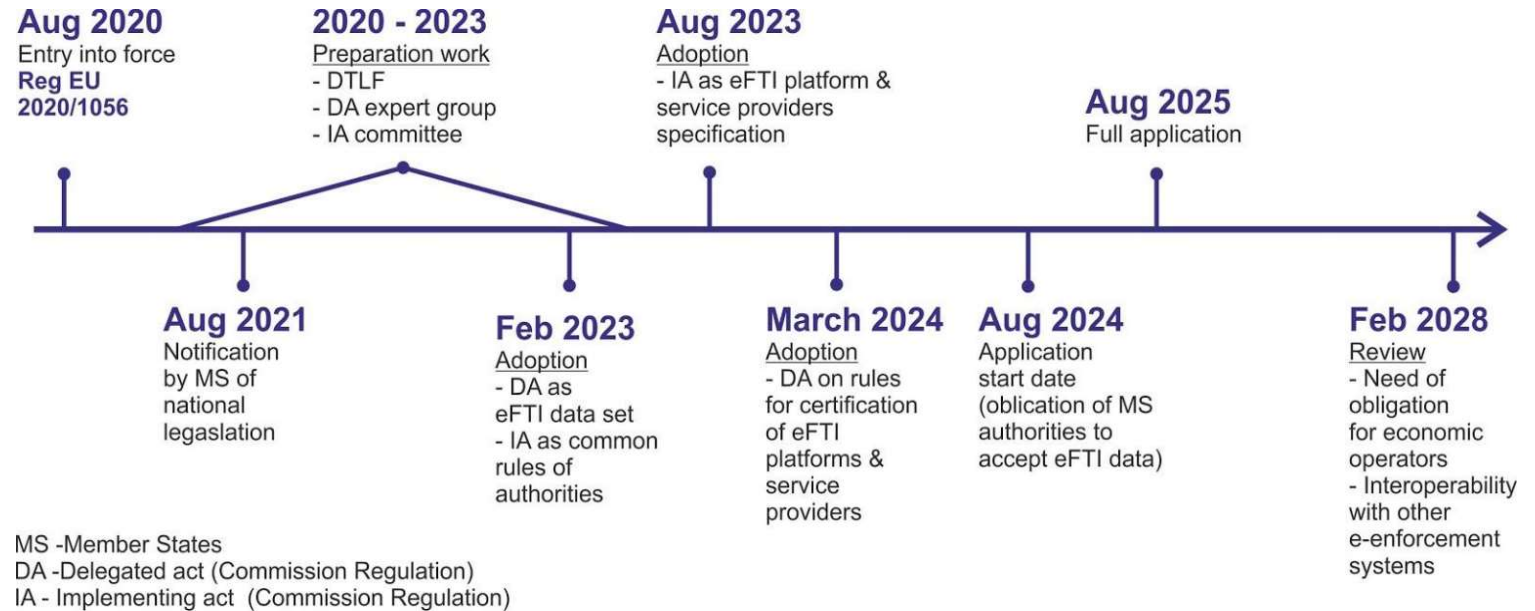
OSATA PROTSESSI- KAARTE JA TARKVARA KASUTADA

VÕI TEADA
KEDAGI, KES
OSKAB

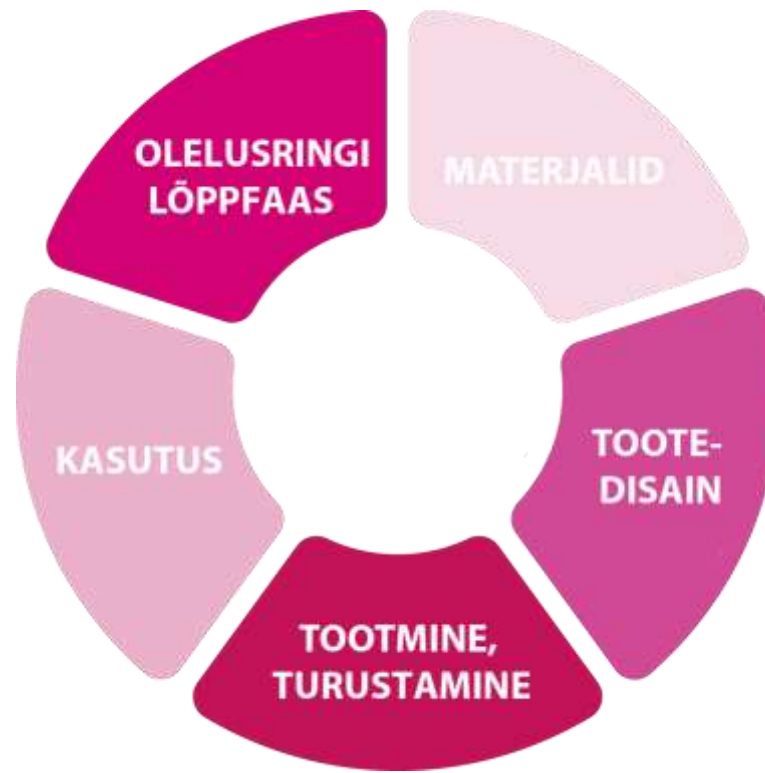


OSATA ARU SAADA, MILLAL MÕNI ÕIGUSAKT PÄRISELT MU ÄRI MÕJUTAB

(ja kes aitaks
seda mõju
selgitada)



OSATA ANALÜÜSIDA ENDA EDUSAMME, SIDUDA EDU SUUREMATE STRATEEGIATEGA



ETTEVÖTTESISESED TEGURID:

ÄRIMODELI INNOVATSIOON
TEHNOLOOGILINE INNOVATSIOON
SOTSIAALNE INNOVATSIOON

VÄLISED TEGURID:

POLIITIKATEGURID
HARIDUSLIKUD JA KÄITUMUSLIKUD TEGURID

An official EU website

How do you know? ▼

EUROPEAN GREEN DEAL
MAKING THE EU
CLIMATE NEUTRAL
BY 2050



**OSATA NÕUDA
PARIMAT IT-
TEENUST**

**JA NÕUDA SELLELE
UUENDUSI KUI
MIDAGI LONKAB**



OSATA KÜSIDA TOETUST JA NÕU JA KASUTADA ÄRA RAHASTUSFONDE

(KA KÕIGE VÄIKESEMAID
JA KÕIGE SUUREMAID)

The screenshot shows the EAS (Enterprise Estonia) website. The top navigation bar includes the EAS logo and links for 'TEENUSED JA TOETUSED', 'UUDISED', and 'SÜNDMUSED'. Below the navigation bar, there is a breadcrumb trail: 'Avaleht > Teenused ja toetused'.

The main content area features a search bar with the placeholder text 'Otsi teenuseid'. Below the search bar, there are two filter sections:

- Vali sihtgrupp** (Select target group):
 - ☐ Alustav ettevõtja (Start-up)
 - ☐ Avalik ja kolmas sektor (Public and third sector)
 - ☐ Tegutsev ettevõtja (Operating business)
- Vali teenuse tüüp** (Select service type):
 - ☐ Teenus (Service)
 - ☐ Toetus (Grant)

Below the filters, there is a section titled 'How to participate in 5 steps' with a circular diagram showing the following steps:

- 1 Find an opportunity
- 2 Find partner(s)
- 3 Create an account
- 4 Register your organisation
- 5 Submit your proposal or offer

Below the steps, there is a text block: 'Learn how to find and apply for suitable EU funding and tender opportunities.' and a yellow button labeled 'Learn more'.

At the bottom right, there is a section titled 'EIC Accelerator calls' with a yellow button labeled 'Apply >'.



MILLISEID UUSI TEADMISI TEIE ARVATES NÜÜD PEAKS ETTEVÕTTED KÕIGE ESIMESENA OTSIMA MINEMA

juhised

uusi trende it vallas
ettevõtte digivõimekus
parimad praktikad
teadmised it it ikka
protsesside kaardistamine
uued loodud lahendused



MENTI.com
1865 2641



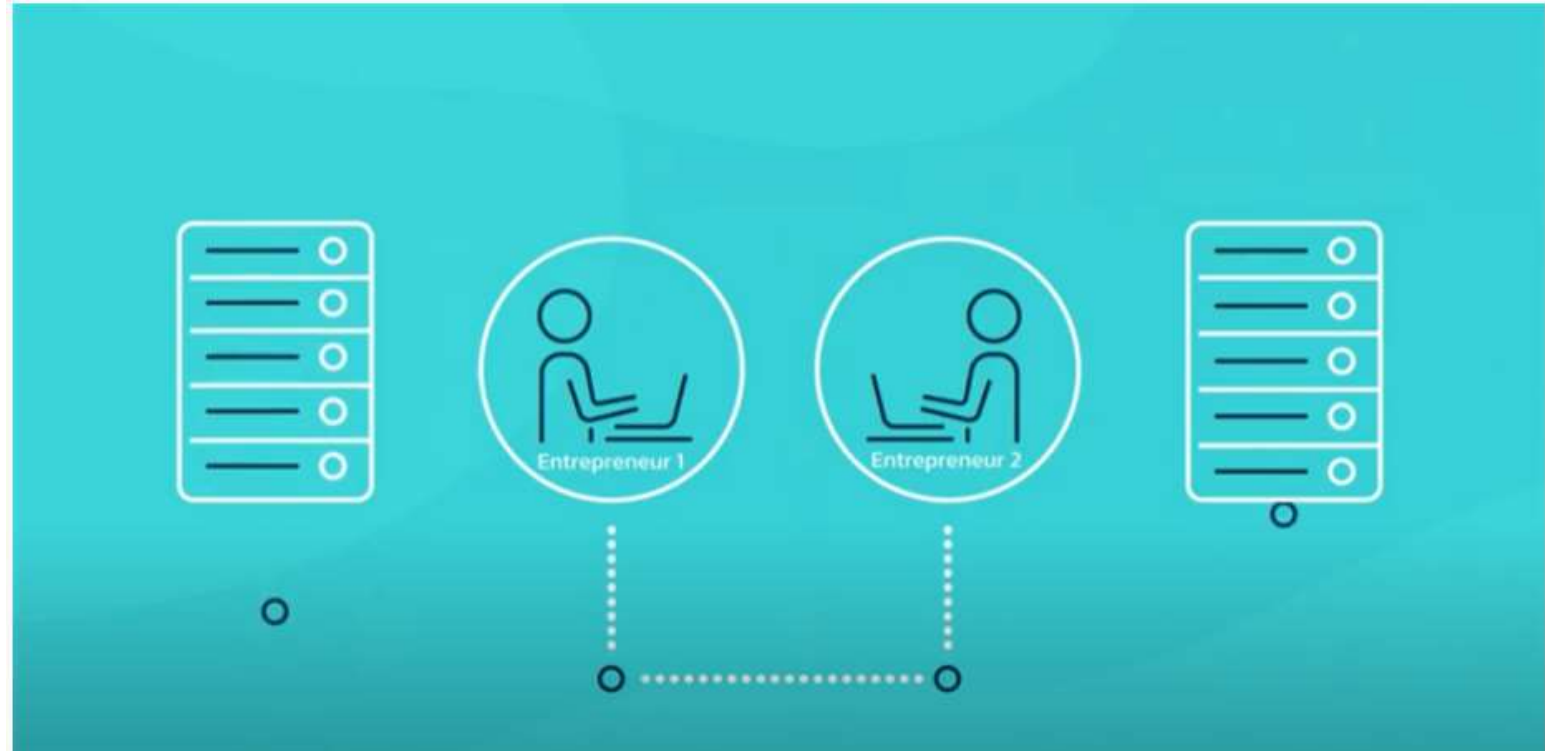


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MIS KINDLASTI TULEB?? 2030



REAALAJA- MAJANDUS TULEB KINDLASTI



[LINK](#) Majandus- ja Kommunikatsiooniministeeriumi reaalajamajanduse alamleht

[LINK](#) RealTime Economy konverentsi esitusloendile (dets 2021)

[LINK](#) - Mis on reaalajamajandus?



RINGMAJANDUS KINDLASTI TULEB



EUROOPA ROHELINE KOKKULEPE KINDLASTI RAKENDUB

(JA MÕJUTAB
KÕIKI ÄRIVALDKONDI)

TAL
TECH

[LINK](#) Euroopa Komisjon



Kliima



Keskkond ja ookeanid



Energia



Transport



Põllumajandus



Rahastamine ja
regionaalareng



Tööstus



Teadus ja innovatsioon



UUED EL ÕIGUSAKTID JA STRATEEGIAD, TEGEVUSKAVAD MUUDKUI TULEVAD!



eur-lex.europa.eu/eli/reg/2020/1056/oj

Title and reference

Regulation (EU) 2020/1056 of the European Parliament and of the Council of 15 July 2020 on electronic freight transport information (Text with EEA relevance)

PE/27/2020/INIT

OJ L 249, 31.7.2020, p. 33–48 (BG, ES, CS, DA, DE, ET, EL, EN, FR, GA, HR, IT, LV, LT, HU, MT, NL, PL, PT, RO, SK, SL, FI, SV)

In force

EL: <http://data.europa.eu/eli/reg/2020/1056/oj>

Languages, formats and link to OJ

Multilingual display

Text

31.7.2020 Official Journal of the European Union L 249/33

REGULATION (EU) 2020/1056 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 15 July 2020

on electronic freight transport information

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 91 and Article 100(2) thereof,

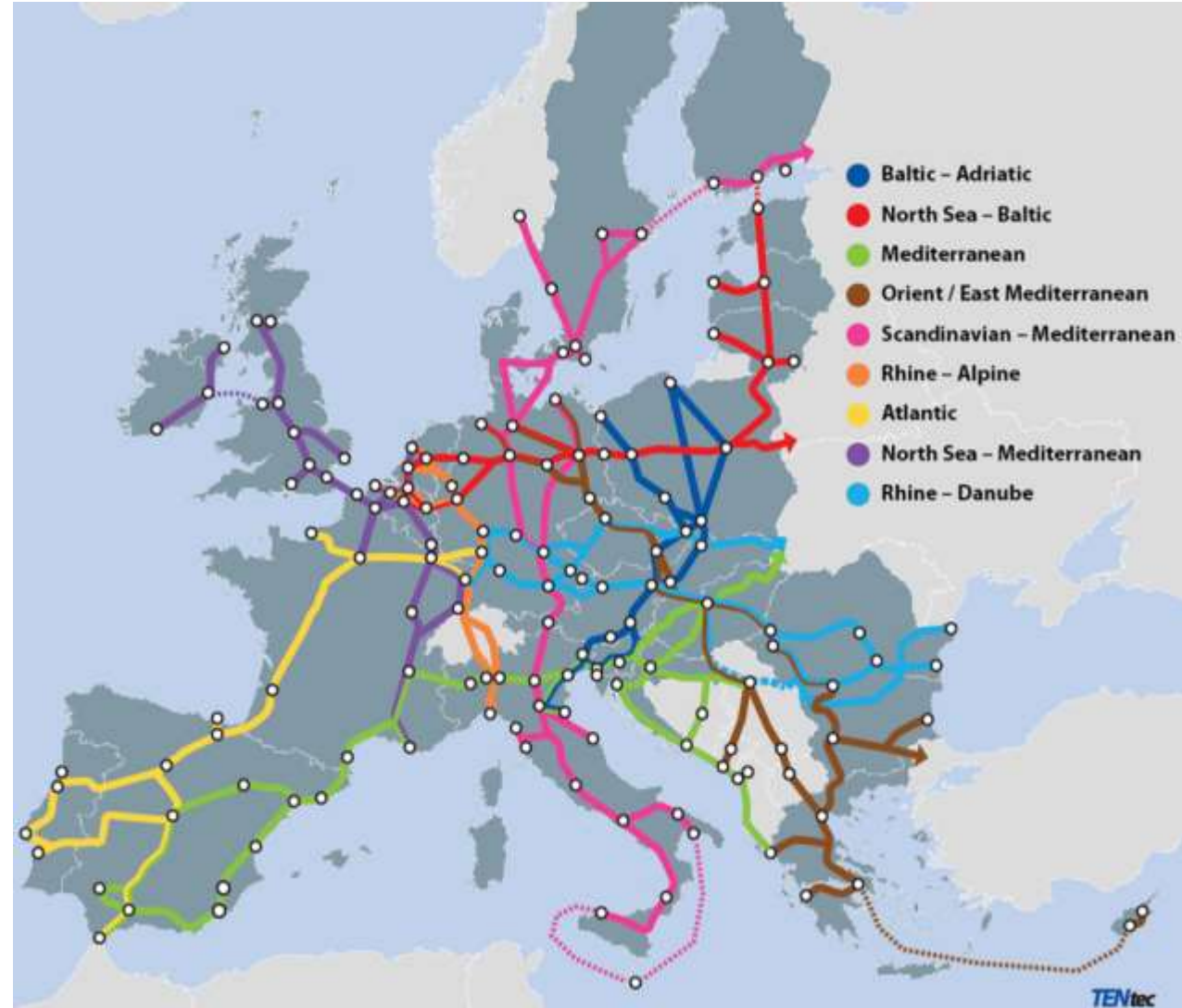
Having regard to the proposal from the European Commission,



PIIRIÜLENE EL- SISENE JA LÄHIRIIKIDE PABERIVABA KAUBA TRANSPORT TULEB

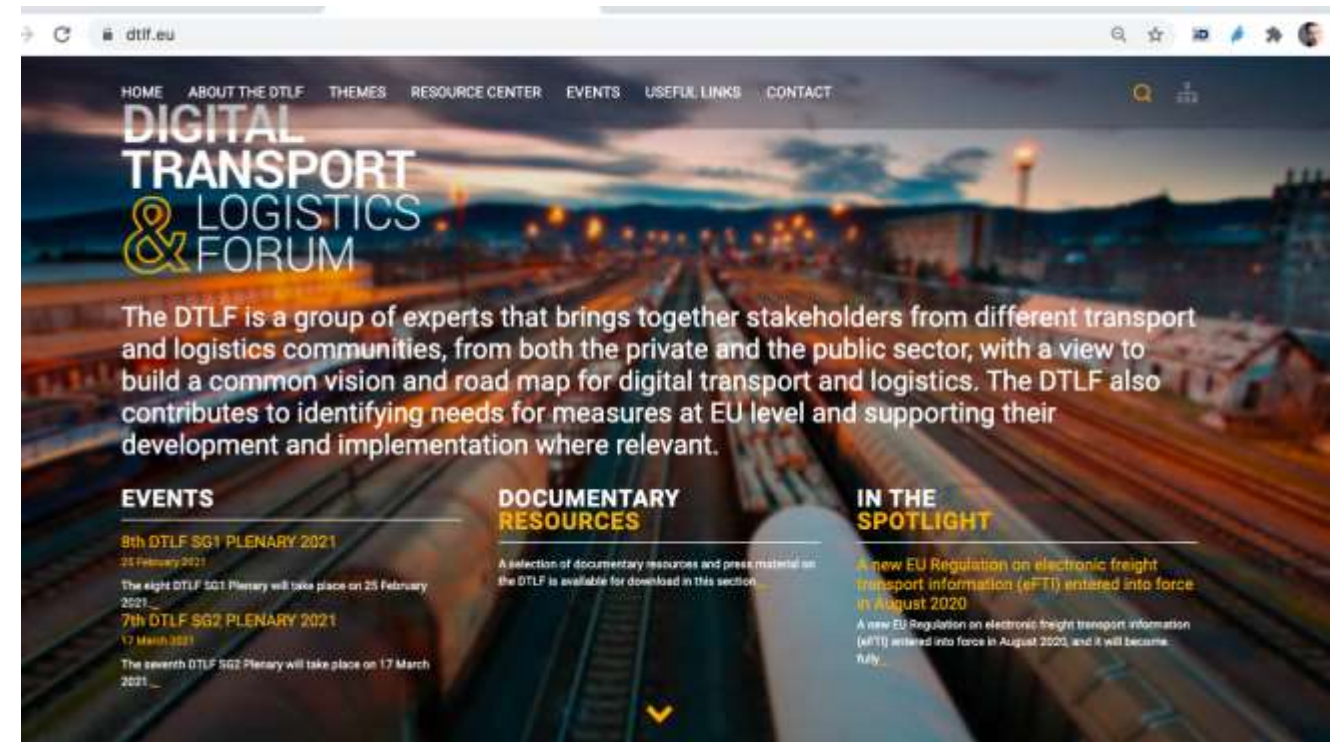
ja TEN-T koridorid
võimestuvad

TAL
TECH



TARK TRANSPORT JA LOGISTIKA TULEB

(JA MÕJUTAB
KÕIKI ÄRIVALDKONDI)



eID ja ettevõtte e-tempel ja DIGIALLKIRI (eID WALLET) TULEVAD ÜLE EUROOPA

(ja ka laiemalt)

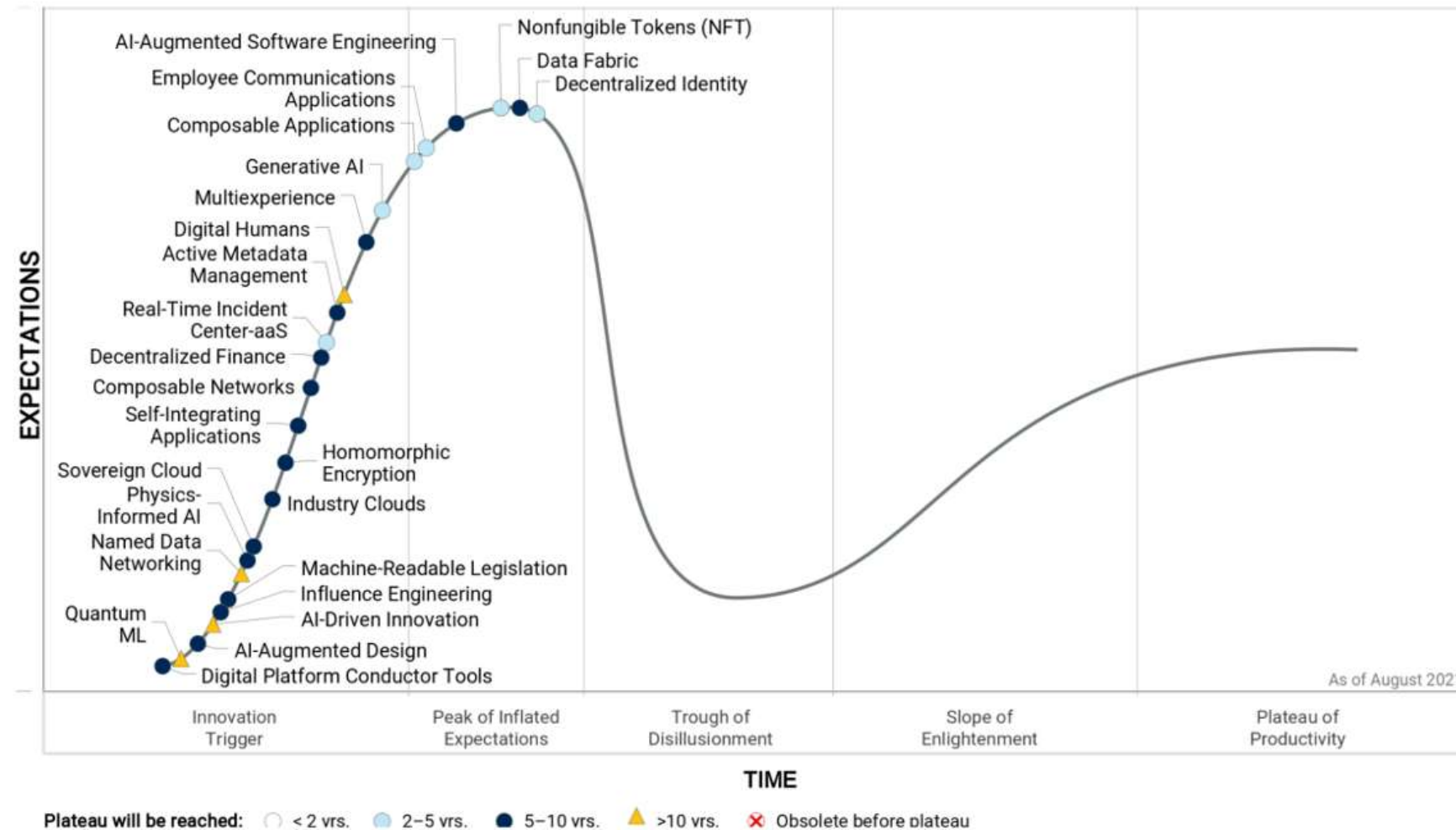
TAL
TECH

[LINK](#)



Hype Cycle for Emerging Technologies, 2021

UUUED
TEHNOLO
OGIAD
TULEVAD



Source: Gartner (August 2021)

747576



INNOVATSIOONI JA UUENDUSTE RAHASTUS TULEB KA

TAL
TECH



European Research Executive Agency (REA)
5,079 followers
1d • 🌐

📢 Register for the next **#CL6INFODAY** !
Applicants will learn how to prepare a quality project proposal to request **#Ho** ...see more



EAS Enterprise Estonia

TEENUSED JA TOETUSED UUDISED SÜNDMUSED

Avaleht > Teenused ja toetused

Otsi teenuseid

Vali sihtgrupp

- ☐ Alustav ettevõtja
- ☐ Avalik ja kolmas sektor
- ☐ Tegutsev ettevõtja

Vali teenuse tüüp

- ☐ Teenus
- ☐ Toetus

An official website of the European Union How do you know? ▾

European Innovation Council

European Commission > European Innovation Council > EIC Funding opportunities > EIC Accelerator

EIC Accelerator

Funding and investments through the EIC Fund for individual start-ups and small companies to develop and scale up game changing innovations



KUST VEEL INFOT SAAB?



MAJANDUS- JA KOMMUNIKATSIOONIMINISTEERIUM

Majandus- ja Kommunikatsiooniministeerium
235 subscribers

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Uploads ▶ [PLAY ALL](#)

Siim Sikkut: "Olukorrast digiriigis 2022+"
34 views • 3 weeks ago

Luukas Kristjan Ilves to become Estonia's new...
653 views • 4 weeks ago

eCMR indexing prototype between Estonia, Latvia,...
45 views • 1 month ago

eCMR indexing prototype between Estonia, Latvia,...
21 views • 1 month ago

Discussion: Future Digital Possibilities to Raise the...
23 views • 1 month ago

Past live streams

Ehitus 2022+: E-horisont
7:32:26

Ohutusjuurduse Keskuse
1:23:35

Pressikonverents: II kvartali
43:10

Tark majandus 5.0: Euroopa
2:01:00

Pressikonverents – I kvartali
39:46

EUROOPA KOMISJONI UUDISVOOD

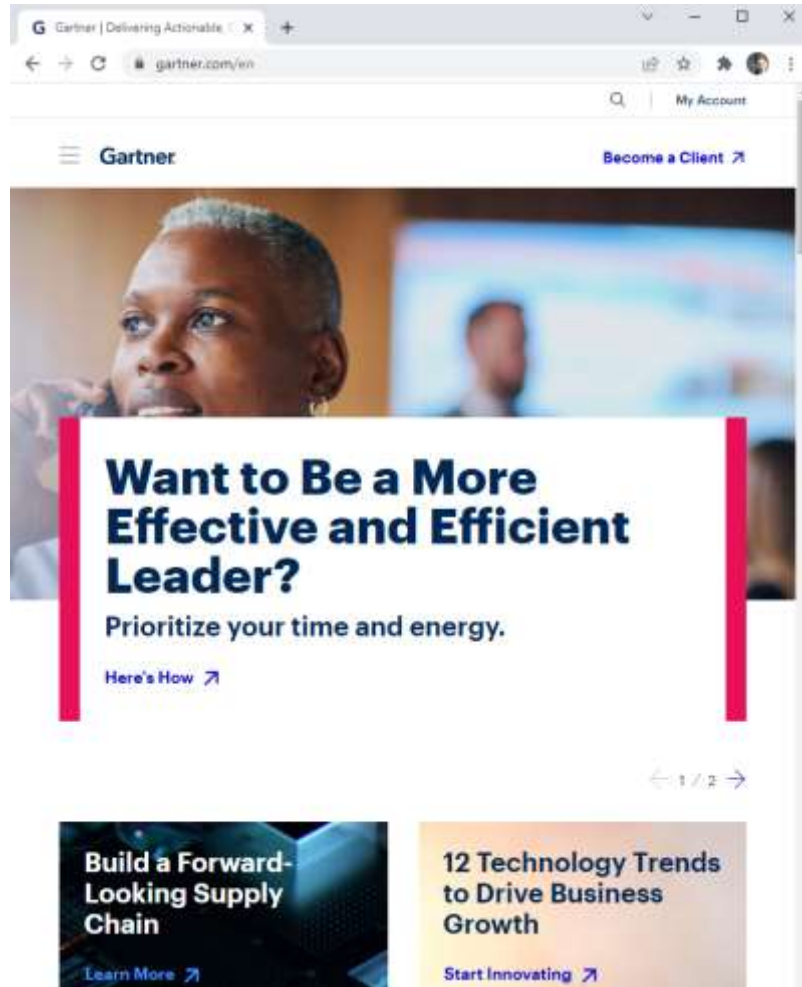
European Commission

- Innovation Fund
- European Research Agency
- Innovation and Networks Executive Agency
- European Research Council

TAL
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SUURED KONSULTATSIOONIVETTEVÕTTED



The screenshot shows the Gartner website with a navigation bar at the top containing the Gartner logo and a 'Become a Client' link. The main content area features a large hero image of a woman on the left and a white text box on the right with the headline 'Want to Be a More Effective and Efficient Leader?' and the subtext 'Prioritize your time and energy.' Below this is a 'Here's How' link. At the bottom, there are two smaller promotional tiles: 'Build a Forward-Looking Supply Chain' and '12 Technology Trends to Drive Business Growth'.

Gartner | Delivering Actionable Insights

gartner.com/en

My Account

Become a Client

Want to Be a More Effective and Efficient Leader?

Prioritize your time and energy.

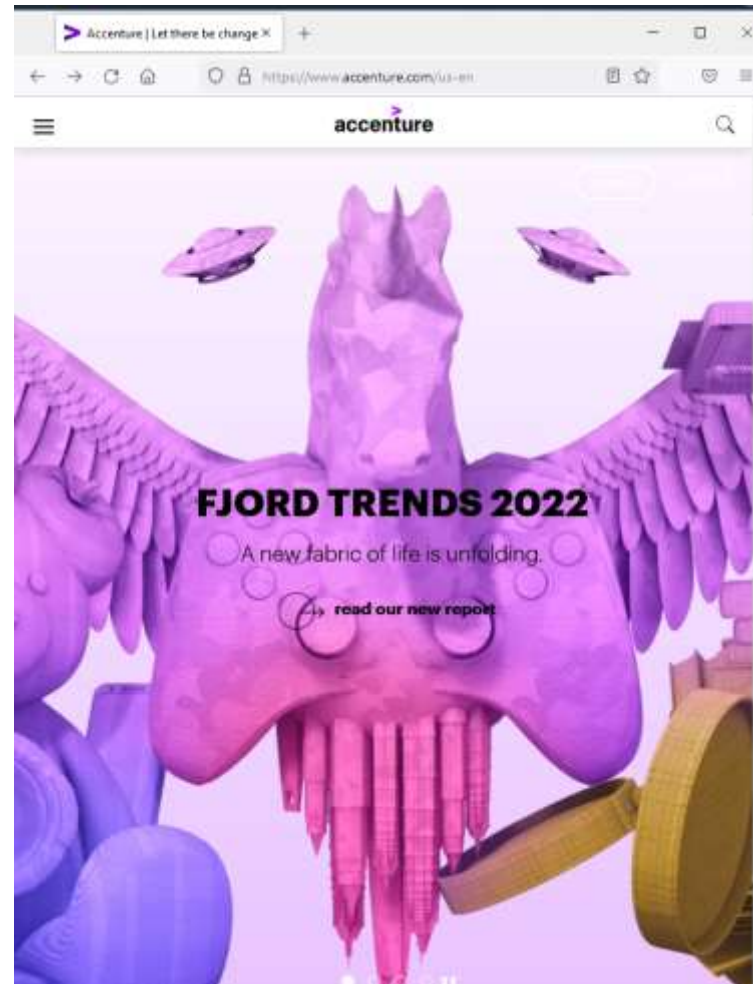
Here's How

Build a Forward-Looking Supply Chain

Learn More

12 Technology Trends to Drive Business Growth

Start Innovating



The screenshot shows the Accenture website with a navigation bar at the top containing the Accenture logo. The main content area features a large, stylized purple unicorn head graphic. Overlaid on the graphic is the text 'FJORD TRENDS 2022' and 'A new fabric of life is unfolding.' Below this is a 'read our new report' link.

Accenture | Let there be change

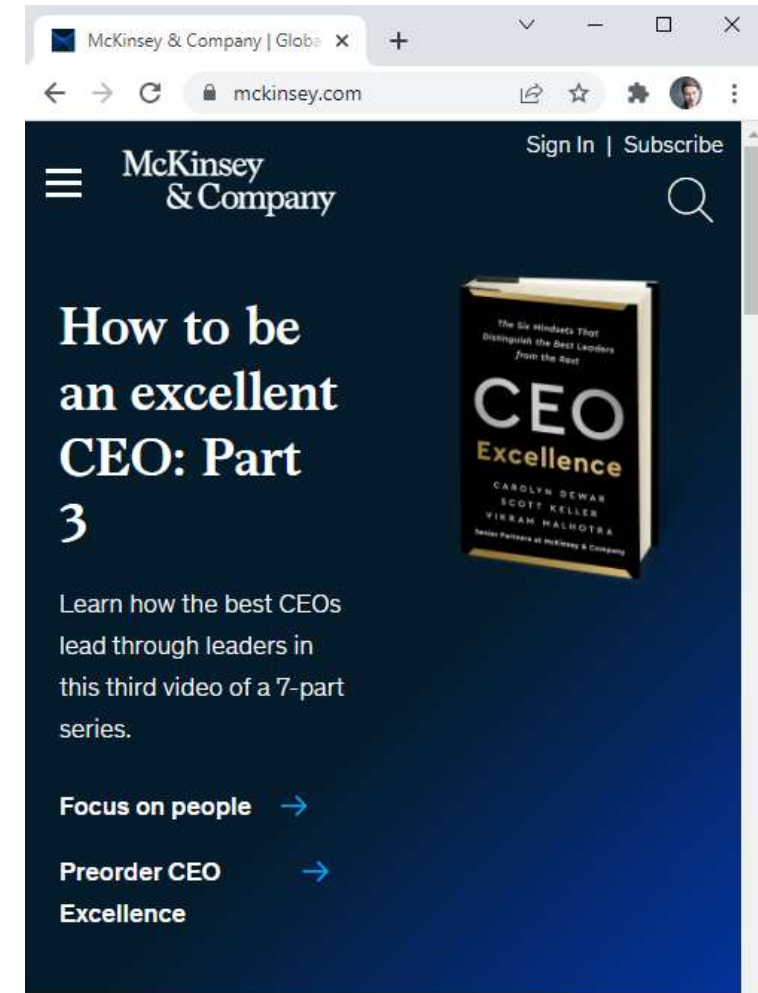
https://www.accenture.com/us-en

accenture

FJORD TRENDS 2022

A new fabric of life is unfolding.

read our new report



The screenshot shows the McKinsey & Company website with a navigation bar at the top containing the McKinsey & Company logo and links for 'Sign In' and 'Subscribe'. The main content area features a large headline 'How to be an excellent CEO: Part 3' and a subtext 'Learn how the best CEOs lead through leaders in this third video of a 7-part series.' Below this are two links: 'Focus on people' and 'Preorder CEO Excellence'. On the right side, there is a book cover for 'CEO Excellence' by Carolyn Sear, Scott Keller, and Vikram Malhotra.

McKinsey & Company | Global Insights

mckinsey.com

Sign In | Subscribe

How to be an excellent CEO: Part 3

Learn how the best CEOs lead through leaders in this third video of a 7-part series.

Focus on people

Preorder CEO Excellence

CEO Excellence

CAROLYN SEAR
SCOTT KELLER
VIKRAM MALHOTRA

Senior Partners at McKinsey & Company

TAL
TECH



EUROPEAN DATA PORTAL, EUROSTAT



The screenshot shows the European Data Portal homepage. At the top, there is a logo and the text "EUROPEAN DATA PORTAL". Below this, there is a navigation bar with "Data", "Impact & Studies", and "Training". The main content area is titled "Search Datasets" and features a grid of icons representing various data categories: Agriculture, Fisheries, Forestry & Foods; Economy & Finance; Education, Culture & Sport; Energy; Environment; Government & Public Sector; Health; International Issues; Justice, Legal System & Public Safety; Population & Society; Regions & Cities; Science & Technology; and Transport. At the bottom, there are links to "DATA CATALOGUES" and "ALL DATASETS".

English (en)

Data ▼ Impact & Studies ▼ Training ▼

Search Datasets

By category By term

- Agriculture, Fisheries, Forestry & Foods
- Economy & Finance
- Education, Culture & Sport
- Energy
- Environment
- Government & Public Sector
- Health
- International Issues
- Justice, Legal System & Public Safety
- Population & Society
- Regions & Cities
- Science & Technology
- Transport

DATA CATALOGUES ▶ ALL DATASETS ▶



The screenshot shows the Eurostat homepage. At the top, there is a logo and the text "eurostat". Below this, there is a navigation bar with "News", "Data", and "Publications". The main content area is titled "STATISTICS BY THEME" and features a grid of icons representing various statistical themes: General and regional statistics; Economy and finance; Population and social conditions; Industry, trade and services; Agriculture and fisheries; International trade; Transport; Environment and energy; and Science, technology and digital society. At the bottom, there are links to "Statistics Explained" and "Flagship publications".

Leg

eurostat

Your key to European statistics

News Data Publications

STATISTICS BY THEME

Statistics A to Z

- General and regional statistics
- Economy and finance
- Population and social conditions
- Industry, trade and services
- Agriculture and fisheries
- International trade
- Transport
- Environment and energy
- Science, technology and digital society

Statistics Explained Flagship publications

EU POLICY INDICATORS

- Euro-indicators/PEEIs
- Sustainable development
- European Pillar of Social Rights
- Circular economy
- Macroeconomic Imbalance Procedure (MIP)
- Europe 2020

EL PATENDIAMET

← → ↻ epo.org ☆ iD 🔍 ⚙️ 👤 ⋮



Europäisches Patentamt
European Patent Office
Office européen des brevets

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European Patent Register
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Espacenet - patent search
Patent Translate
Applying for a patent ▾
Law & practice ▾
Boards of Appeal ⚖️ ▾

IP rights and business performance



[Read the study](#)

IPR performance Podcast Oral proceedings

3. ^

4. Presentations....pdf ^

Kuva kōik ✕

Otsi teenuseid



Vali sihtgrupp

- ☐ Alustav ettevõtja
- ☐ Avalik ja kolmas sektor
- ☐ Tegutsev ettevõtja

Vali teenuse tüüp

- ☐ Teenus
- ☐ Toetus

Teenused ja toetused

Kuvatud kõik teenuste grupid

EASis viime sind sinu eesmärkidele ja unistustele lähemale. Me pakume lisaks erinevatele toetustele ka nõustamisteenuseid ning praktilisi koolitusi ja töötubasid oma valdkonna tippude poolt. Lisaks aitavad meie ekspordinõustajad sul edukalt ka välisturgudele jõuda. Uuri meie teenuseid lähemalt ja küsi vajadusel lisainfot! Oleme sinu jaoks olemas.

COVID-19



ALGAV KOOLITUS TALTECHIS

Avaleht > Koolituskalender > Töötajate ja juhtide kompetentside arendamine ringmajanduse ja rohepöörde trendidest lähtuvalt

Töötajate ja juhtide kompetentside arendamine ringmajanduse ja rohepöörde trendidest lähtuvalt

Share

Tweet

saada sõbrale

ÜLDINFO:

Kokkuvõttev lühikirjeldus

Ettevõtted vajavad täna nii motivatsiooni, argumente kui arusaamist, milliseid suundi rohemajanduse ja ringmajanduse kontekstis on vaja arvestada, et vastata nii nõuetele kui ootustele ning olla konkurentsivõimelisemad nii siseriiklikul kui Euroopa turul.

Toimumise aeg:

11.04.2022 - 23.05.2022

Registreerimine avatud

10.01.2022

Registreerimine suletud alates

17.04.2022

Läbiviimise keel

eesti keel

Maht:

52 akad. tundi

- Auditoorne: 34 akad. tundi
- Praktiline: 10 akad. tundi
- Iseseisev töö: 8 akad. tundi

Osalejate arv:

45 kuni 55 osalejat

Hind osalejale:

tasuta

TAL
TECH

TALLINNA TEHNIKAÜLIKOOL

<https://koolitus.edu.ee/training/7130>



TAL TECH

TÄNAN JA KOHTUMISENI!



ULRIKA HURT
ulrika.hurt@taltech.ee, +372 52 14 251

2022