



REPUBLIC OF ESTONIA
MINISTRY OF CLIMATE

Digitalization of the construction process in practice. Estonian approach

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National Building Registry /
e-construction platform

Warsaw, August 30 2023



Building Registry = building logbook

Digital database of the built environment

- + 100% digital building permit process est 2016
- + Used by all municipalities in Estonia
- + Part of e-construction platform

büroohoone (EHR kood 120772119)

Ehitise liik: hoone
Ehitise nimetus: büroohoone
Ehitisregistri kood: 120772119
Omandi liik: kinnisasi
Peamine kasutustarve: Büroohoone (12201)
Ehitise aadress: Harju maakond, Tallinn, Kesklinna linnaosa, Suur-Ameerika tn 1

Ehitise seisund: Olemas
Ehitise aadress: Harju maakond, Tallinn, Kesklinna linnaosa, Suur-Ameerika tn 1
Ehitisregistri kood: 120772119
Ehitise nimetus: Büroohoone
Ehitise liik: Hoone

Teavitati ehitustööde alustamisest
Teavitati ehitise lammutamisest
Ehitise kasutamisega seotud teavitamine
Ehitise ehitamisega seotud teavitamine

1910-1945	1946-1960	1961-1970	1971-1980	1981-1990	1991-2000	2001-2010	2011-2020	2021-2030	Kokku
3 508	395	4 276	1 258	1 461	2 250	2 247	1 956	226	22 747
334	395	646	684	644	870	884	665	115	5 573
28	154	48	12	7	18	869	416	23	1 657
1	95	844	1 335	2 215	1 075	3 194	5 592	674	15 023
0	16	9	3	2	0	4	20	12	45
15	9	5 827	5	27	20	136	1 051	129	1 461
0	5 278	6	5 361	10	11	10	35	4	91
0	9	5 827	5 361	4 966	4 242	7 344	9 745	1 183	46 597

Diagramm: Joondigramm

Ehitise detailotsing | Dokumentide detailotsing | 3D kaksik

[Potential] home owners

Arcitects

Notary, bailiff

Local Municipalities

Construction companies

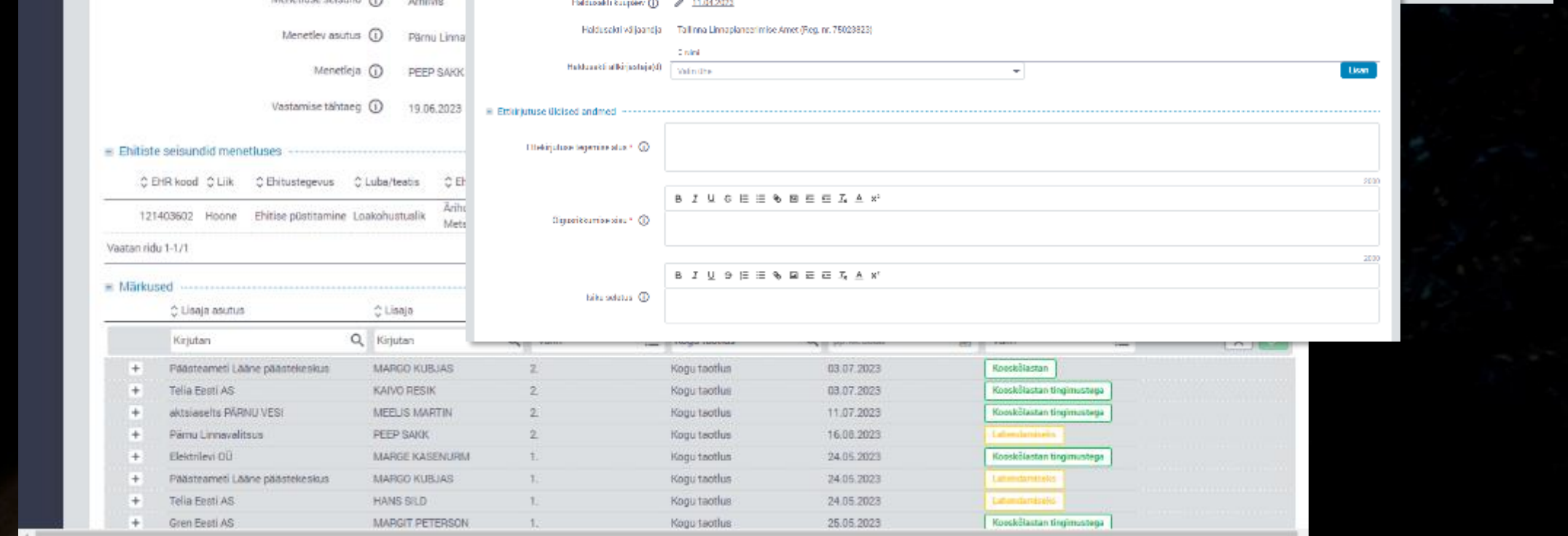
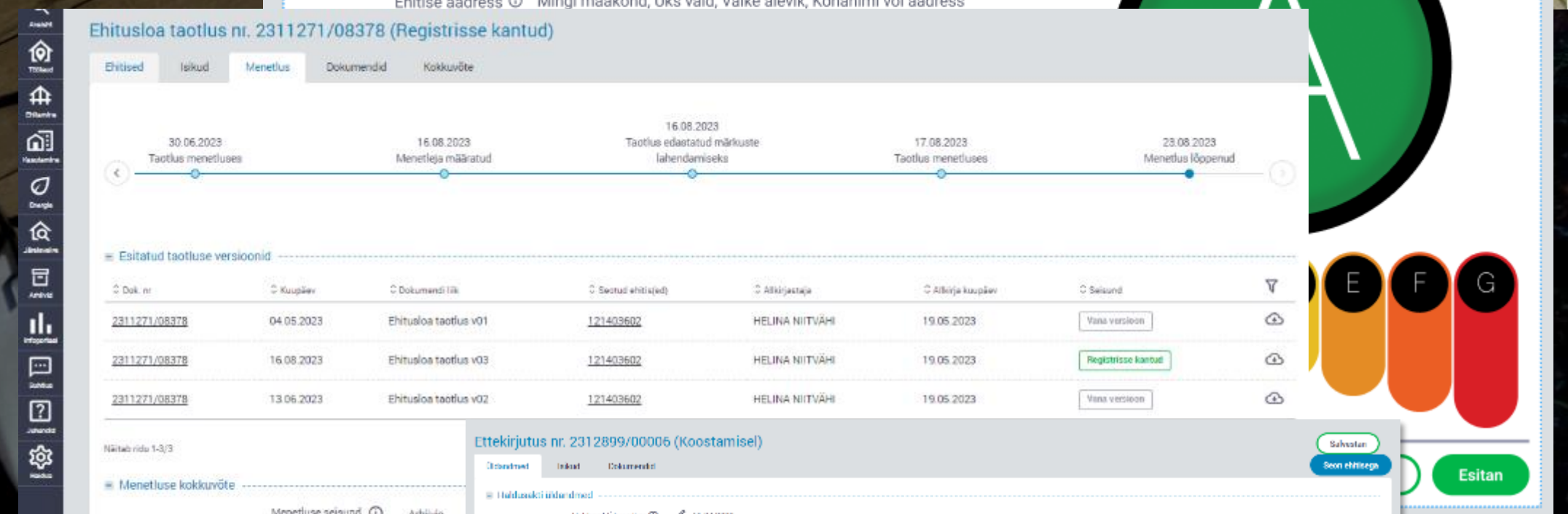
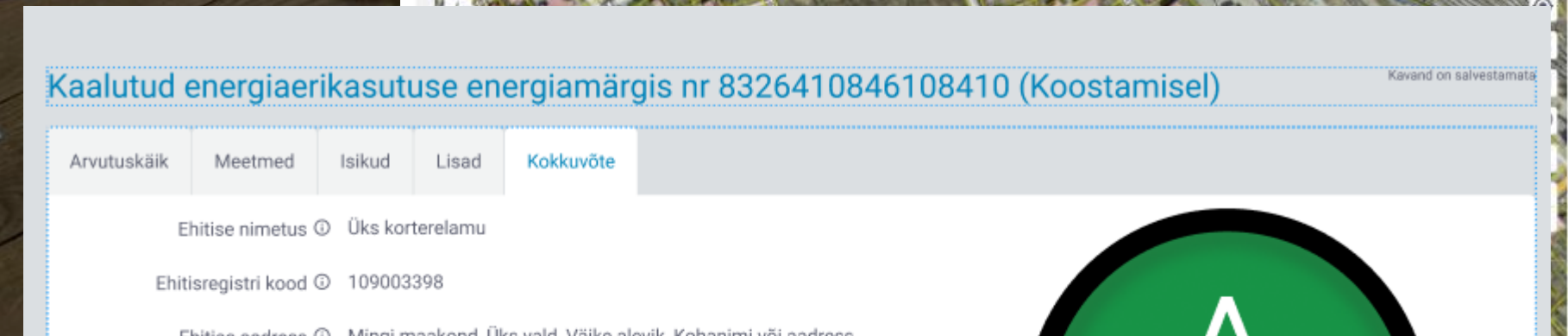
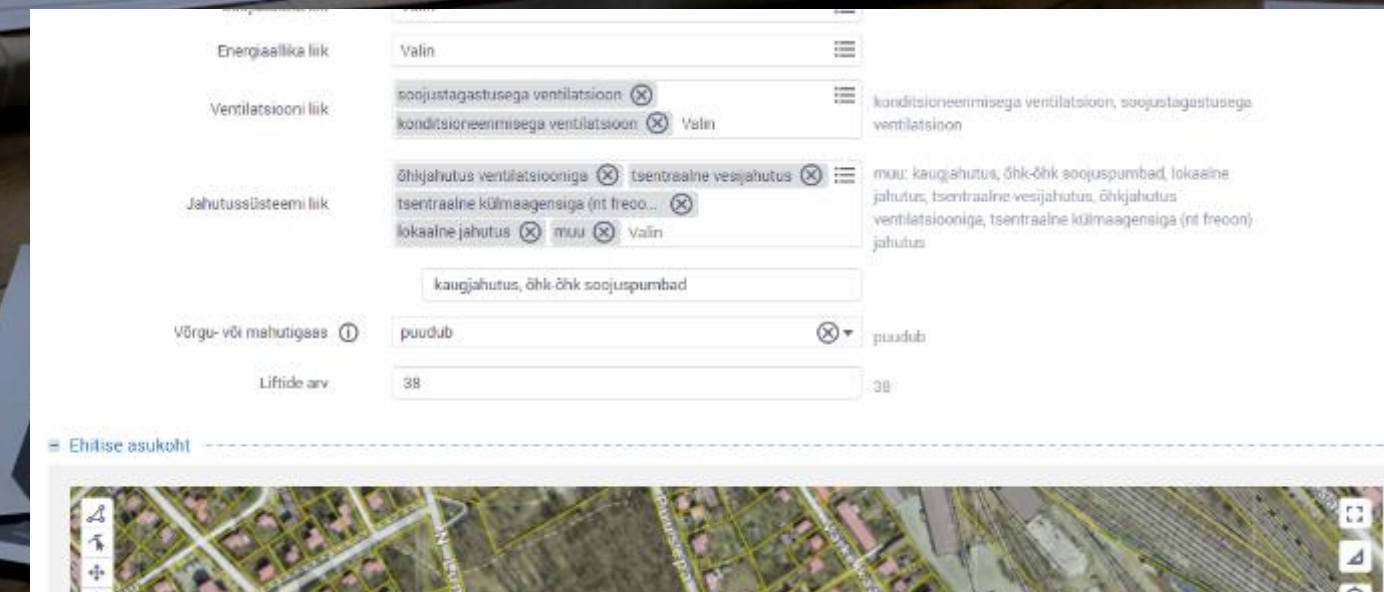
EHR

Real Estate companies

Utilities

Statistics Office

Rescue Board, Land Registry, Office of Transportation, ...





Construction and Housing Department vision:

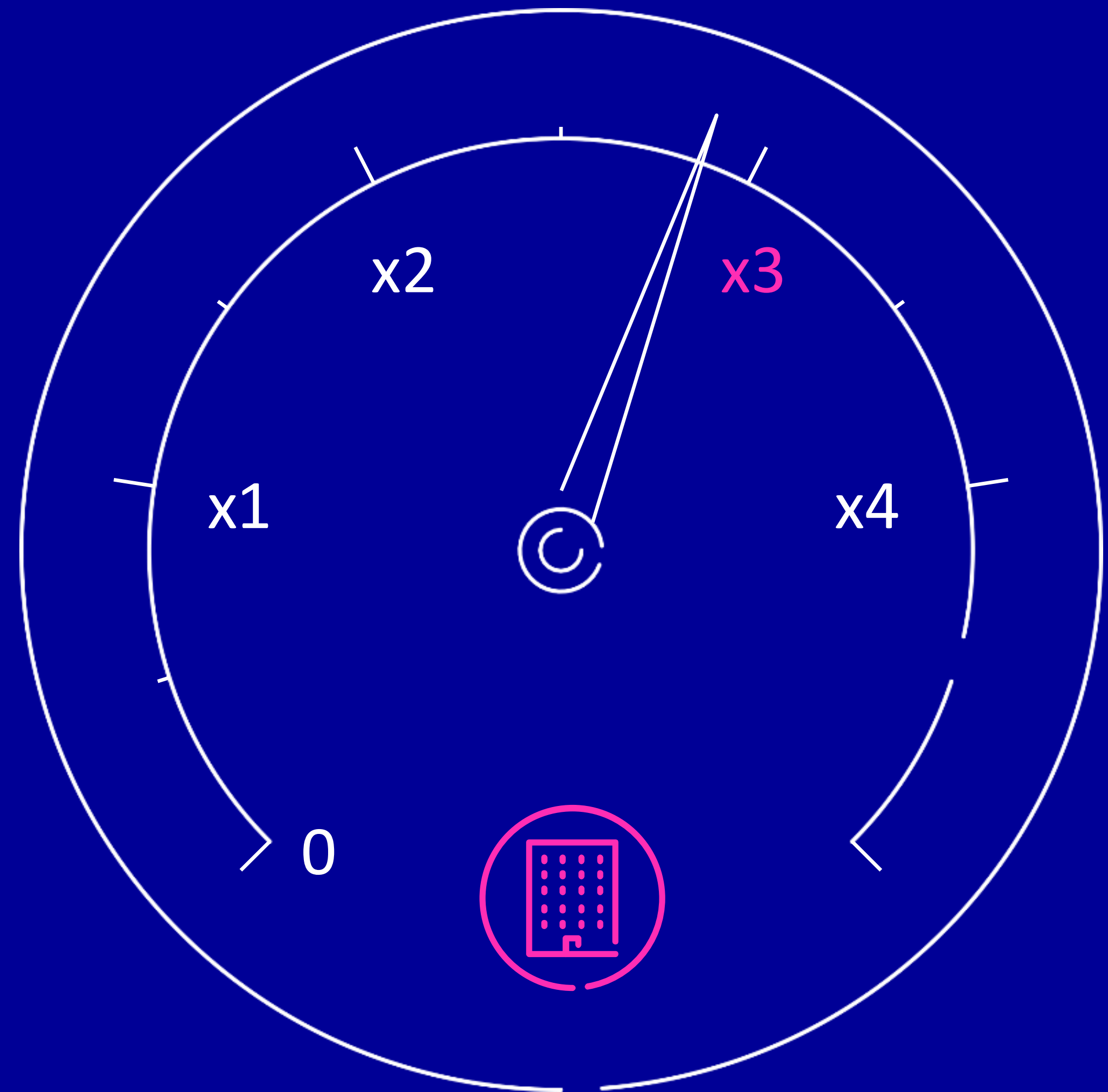
Best living environment

Construction and Housing Department mission:

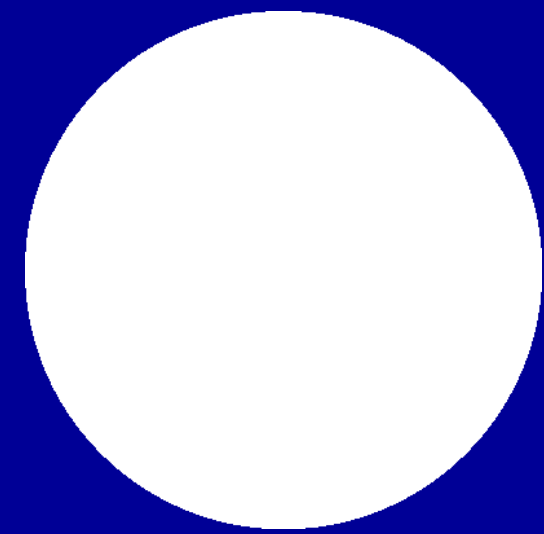
Shape the **best** conditions for the sustainable development
of the built environment

1st objective: increase construction productivity x3

- + government aims to increase construction sector productivity x3 by 2030
- + current productivity is below EU average



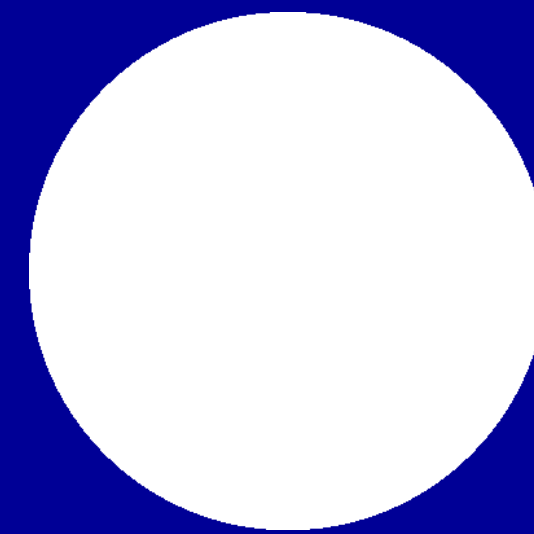
role of **government**



Legislation

direct and influence adoption of new solutions using relevant legislation

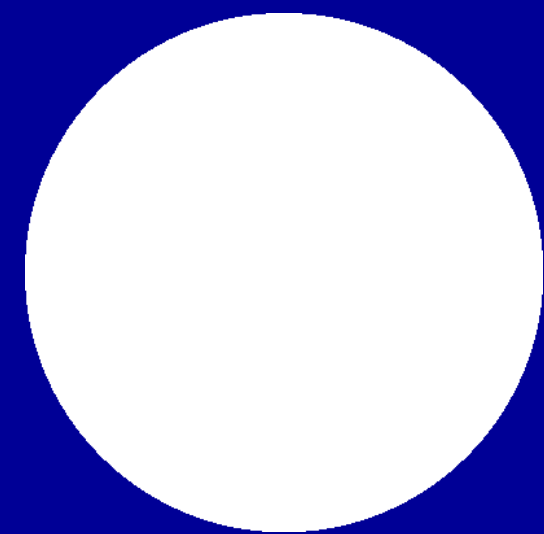
enabling



Process improvement

map and improve existing processes, support (financially and by other means) adoption of new tools and methods

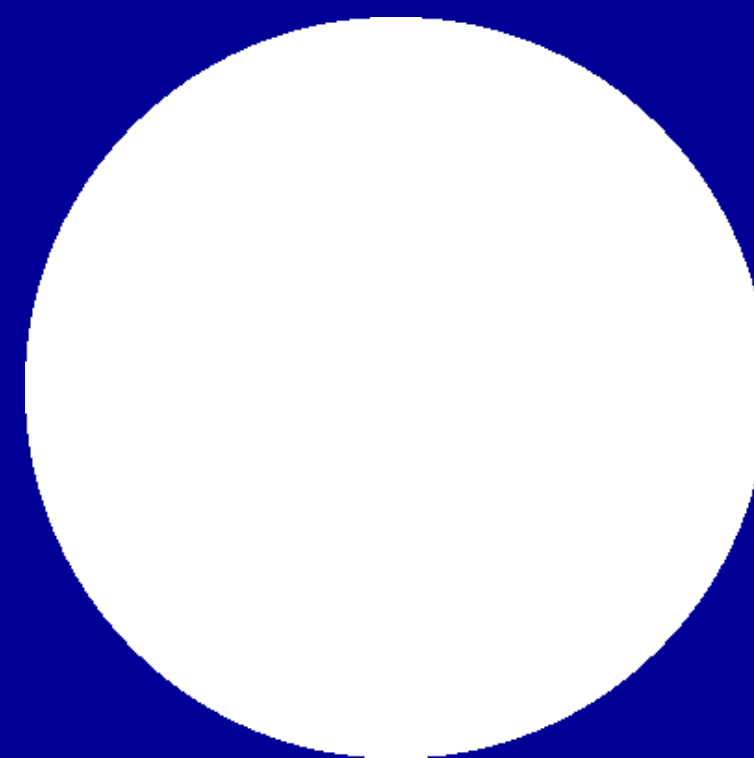
nudging



Education

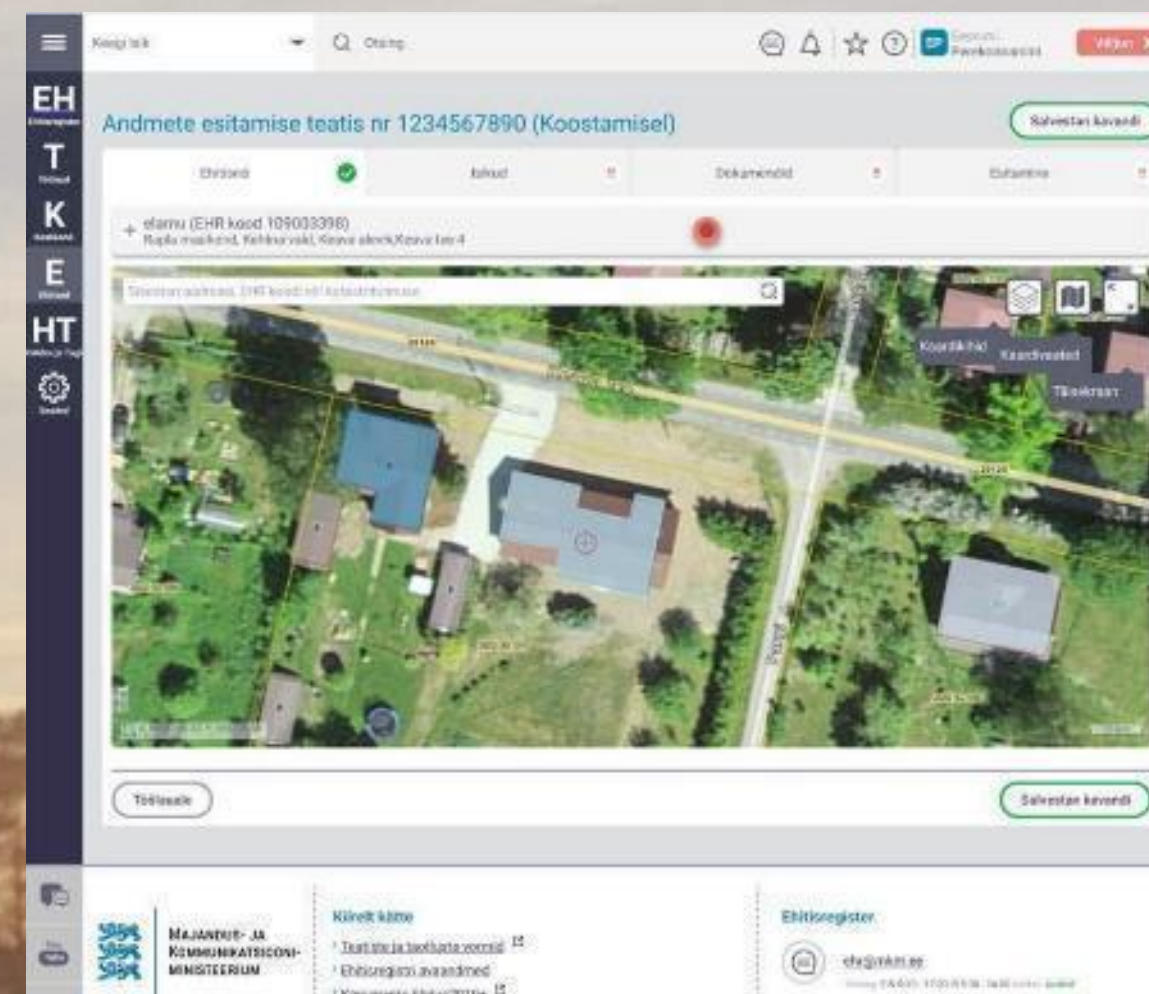
develop educational curriculums and government orders to develop skills for innovative

facilitating



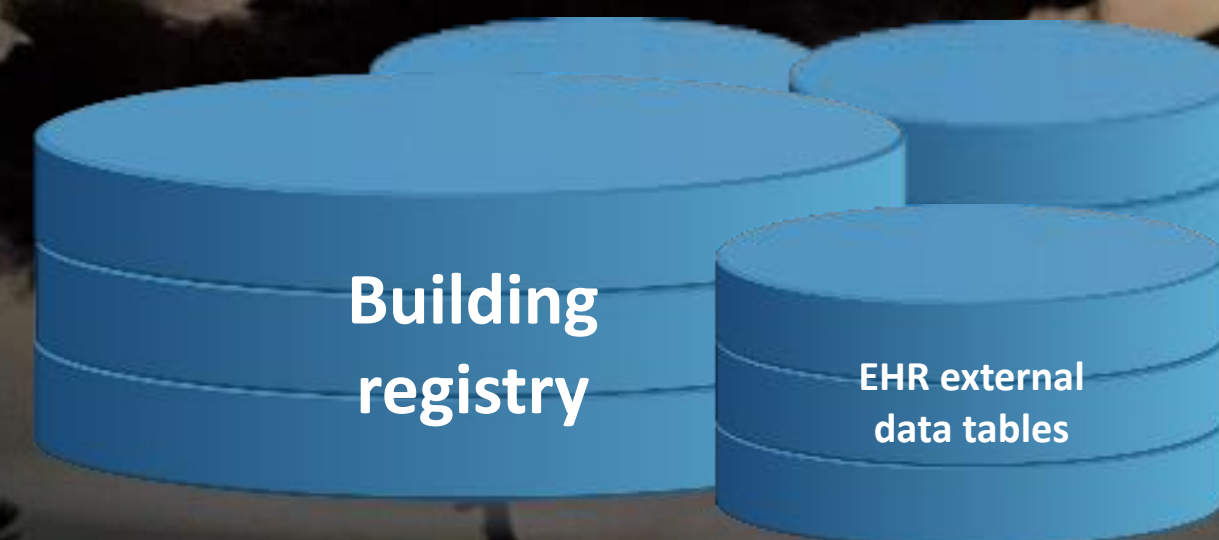
create the environment for secure and reliable data exchange

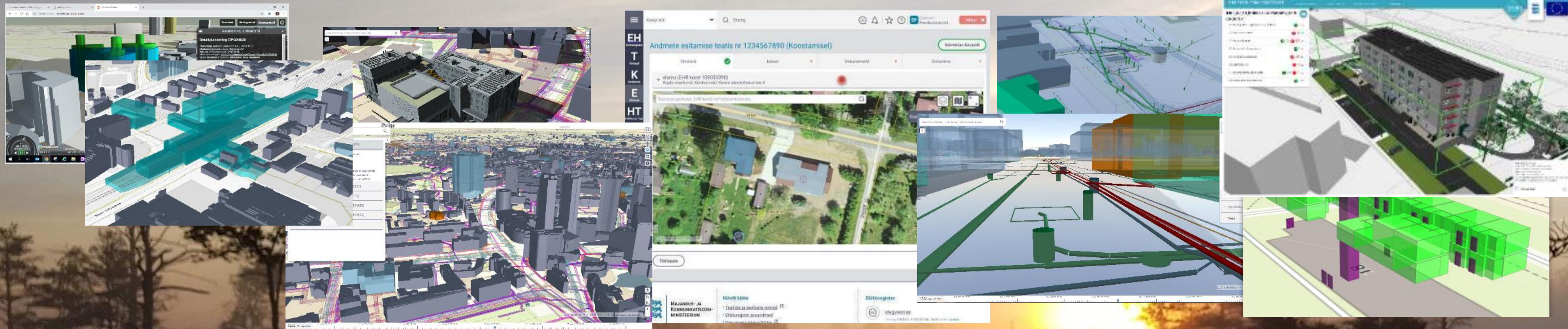
>> e-construction platform



- Building permit application
- Construction notification service
- Usage permit application
- My buildings
- ...

Building Registry (EHR) services





- Detail plan (zoning) application
- ...
- Digital Twin visualization
- Data conversion and import/export
- ..., ..., ...
- Building permit application
- Construction notification service
- Usage permit application
- My buildings
- ..., ..., ...
- Land survey services
- Utility connections
- ...
- BIM-based automated checking process
- Emergency access points
- ...

Other public services

Digital Twin services

Building Registry (EHR) services

Utility Network (VRA) services

BIM services



Büroohoone-Elamu "Juhkentali Kvartal" (121293339)

Ehitise aadress Harju maakond, Tallinn, Kesklinna linnaosa, Liivalaia tn 34

Ehitise seisund **püstitamisel**

Ehitisregistri kood

Ehitise nimetus

Ehitise liik

+ Elektripaigaldise kaits

+ Gaasipaigaldise kaits

+ Katastriüksus 78401:

Ehitised (3D)

LOD1 (Ehitisregister)

Hoonete läbipaistvus

0%

Hoonete seisundid

Kavandatud, Lammutamisel, P... 🔍

LOD2 (Maa-amet)

Hoonete läbipaistvus

0%

Hoonete varjud

Sees

+ Planeeringud

+ Keskkonnad

+ Veevõtukohad

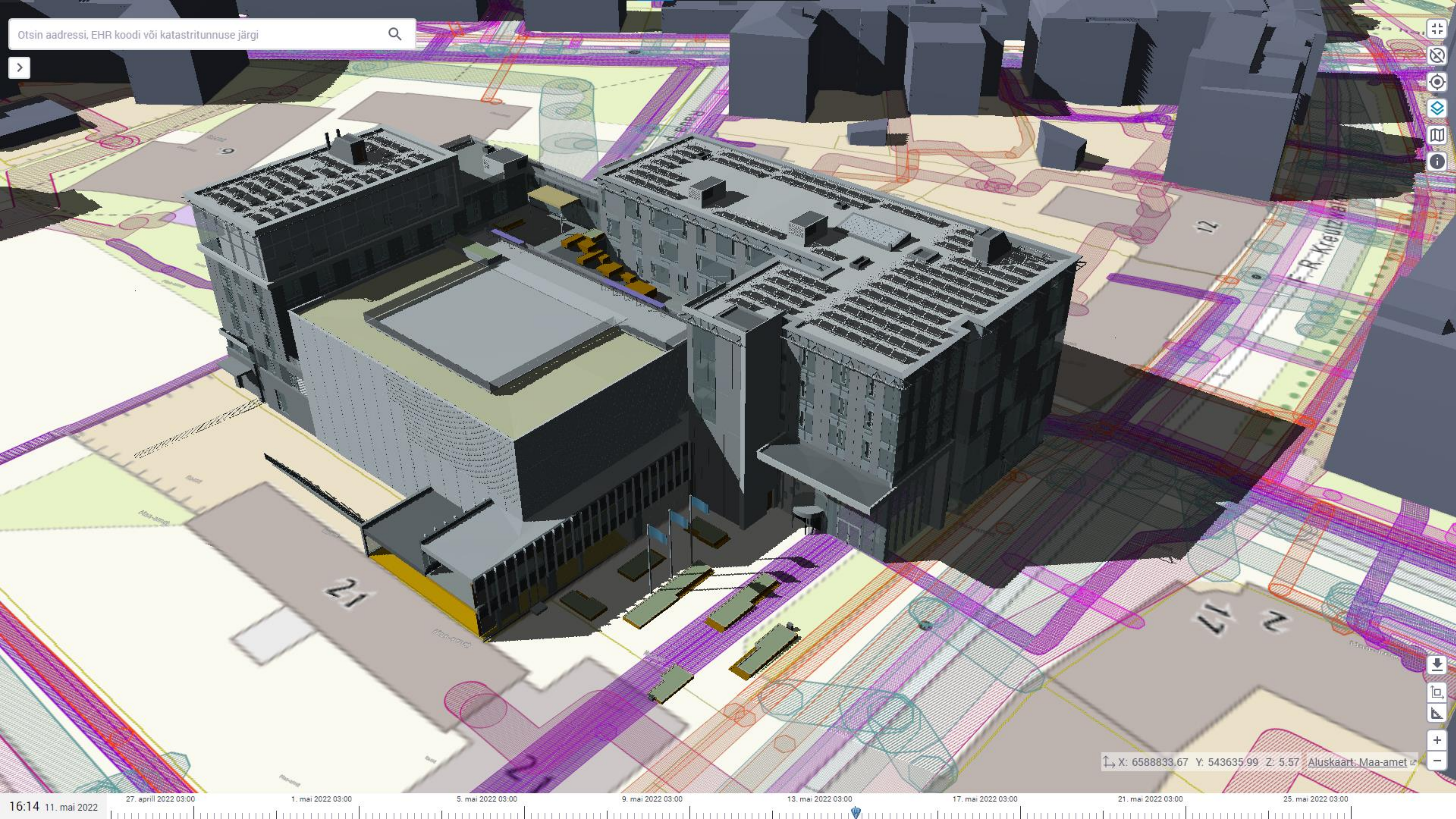


European Union
European Regional
Development Fund



Investing
in your future

Otsin aadressi, EHR koodi või katastritunnuse järgi



X: 6588833.67 Y: 543635.99 Z: 5.57 Aluskaart: Maa-amet

16:14 11. mai 2022

27. aprill 2022 03:00 1. mai 2022 03:00 5. mai 2022 03:00 9. mai 2022 03:00 13. mai 2022 03:00 17. mai 2022 03:00 21. mai 2022 03:00 25. mai 2022 03:00

Otsin aadressi, EHR koodi või katastritunnuse järgi



BIMcollab ZOOM (free version): lod2-6587714.85-542713.65

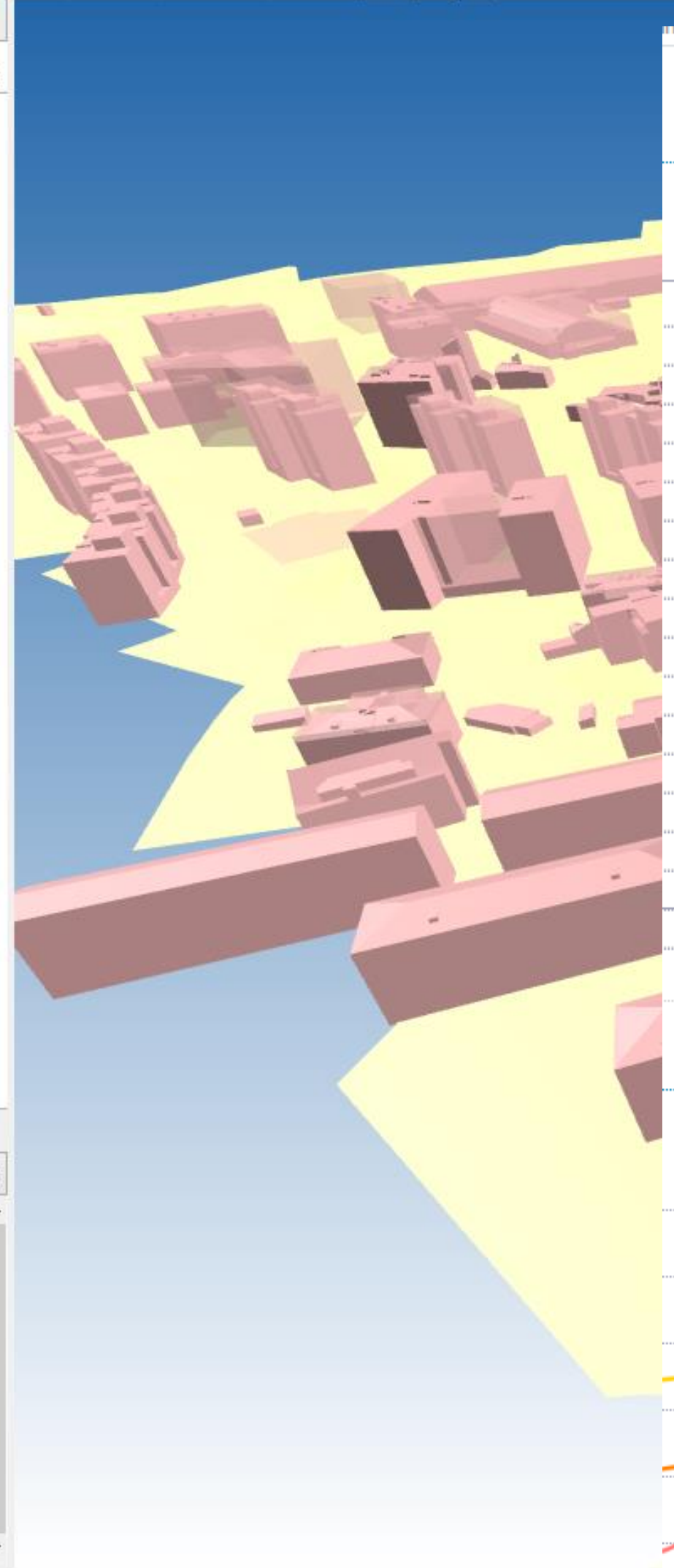
File View Navigate My view Validate Sectioning Extra Help



Navigation Smart views Clashes Lists Issues

Offline

- building-6587714.85-542713.65
- lod2-6587714.85-542713.65
- terrain-6587714.85-542713.65



Select object to show properties

Summary	
Property	Value

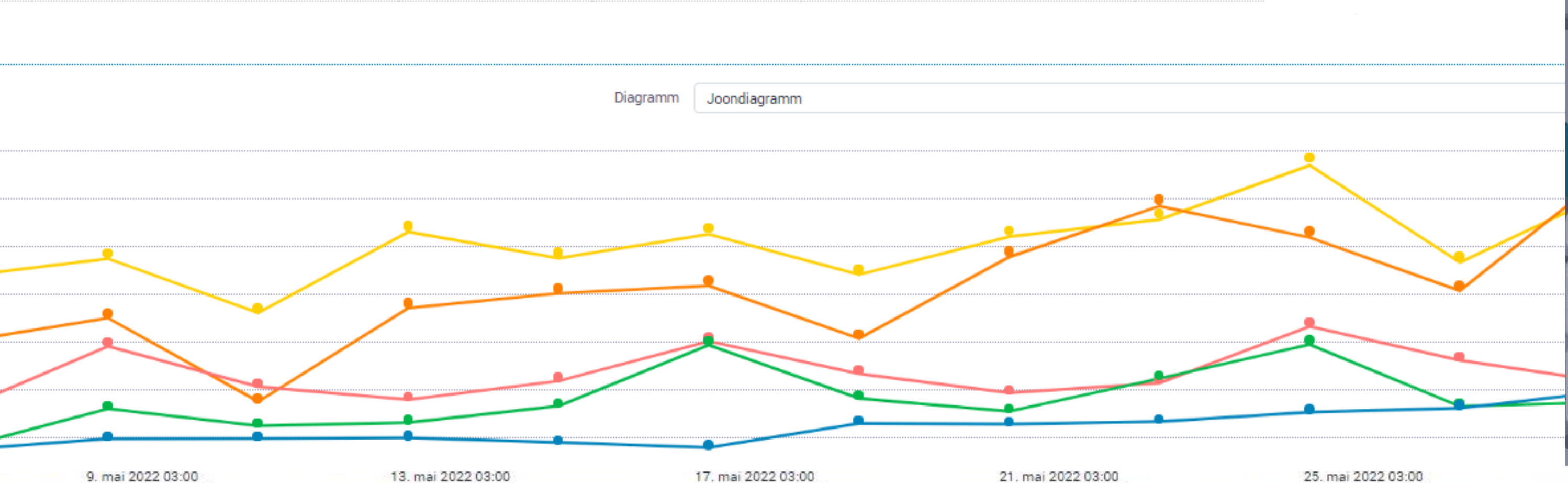
Ehitusluba	Ehitusteatis	Kasutusluba	Kasusteatis		
2 099	1 195	1 251	822		
2 909	1 816	1 207	805		
2 745	2 048	1 321	912		
2 938	2 305	2 004	1 339	1 019	9 605
2 360	1 415	1 574	1 155	1 021	7 525
3 222	2 412	1 435	1 189	1 028	9 286
2 944	2 569	1 634	1 366	979	9 492
3 197	2 648	2 056	2 017	925	10 843
2 768	2 088	1 711	1 448	1 183	9 198
3 173	2 956	1 507	1 311	1 174	10 121
3 354	3 498	1 613	1 660	1 200	11 325
3 932	3 162	2 215	2 023	1 303	12 635
2 898	2 596	1 854	1 364	1 345	10 057
3 653	3 863	1 621	1 408	1 525	12 070
3 435	3 411	1 548	1 482	999	10 875
45 627	37 982	24 551	20 301	16 708	145 169

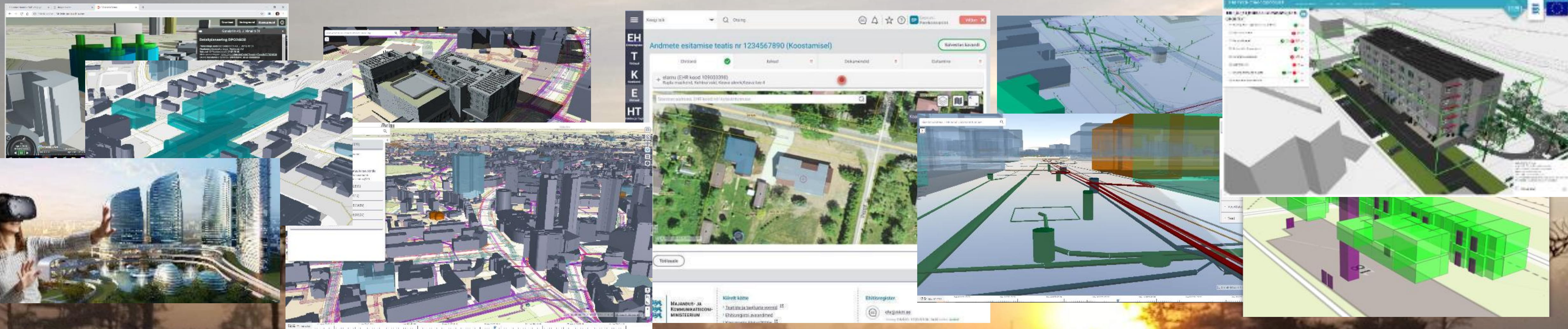
Faail allalaadimine

Tabeli XLS formaadis

Tabeli alusandmed XLS formaadis

E-post:





- ...
- VR/AR services
- Construction diaries
- Detail plan (zoning) application
- ...
- Digital Twin visualization
- Data conversion and import/export
- ...
- Building permit application
- Construction notification service
- Usage permit application
- My buildings
- ...
- Land survey services
- Utility connections
- ...
- BIM-based automated checking process
- Emergency access points
- ...
- ...

Private sector

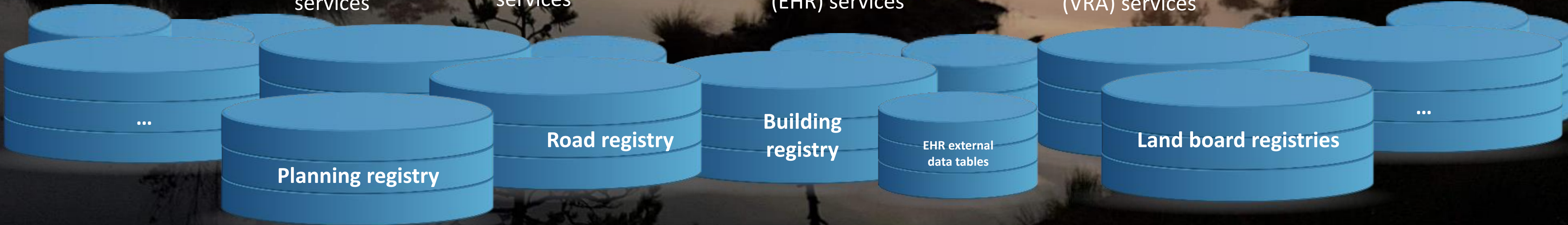
Other public services

Digital Twin services

Building Registry (EHR) services

Utility Network (VRA) services

BIM services



...

Planning registry

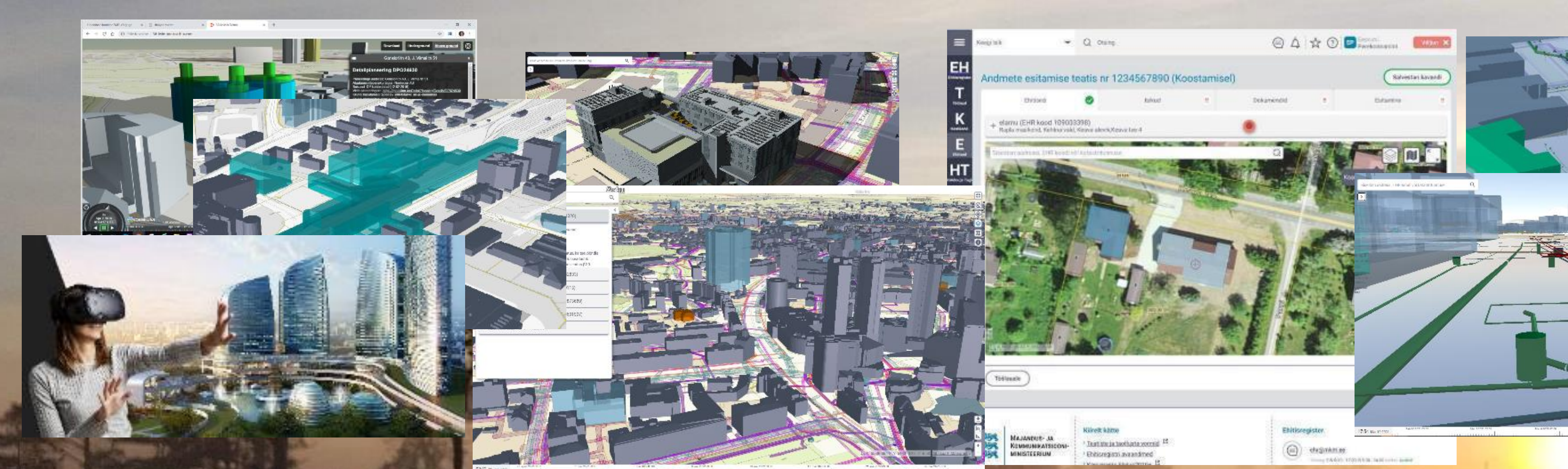
Road registry

Building registry

EHR external data tables

Land board registries

...



- Data and Services from a single source
- Transparency
- Combined data analysis
- *Base services*

e-construction platform

Common architecture, non-functional requirements, style, language, philosophy

Private sector

Other public services

Digital Twin services

Building Registry (EHR) services

Utility Network (VRA) services

BIM services

...

Planning registry

Road registry

Building registry

EHR external data tables

Land board registries

...

Thank you!

+ Know why you are digitizing

Revisit the „why?“

+ Collaborate and be transparent

Make public data accessible and reusable

Use international open standards

Build open systems

+ **Be bold and agile**