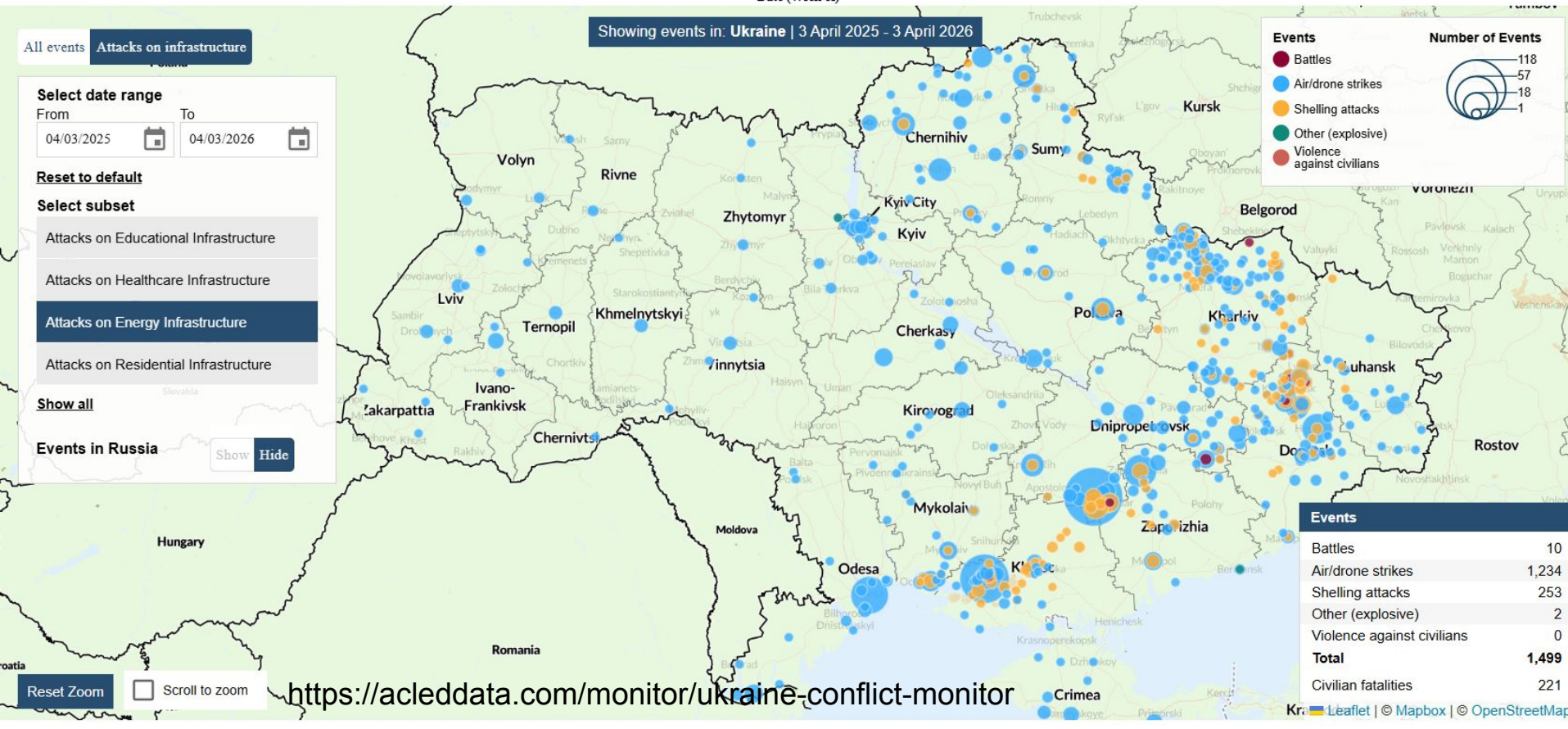


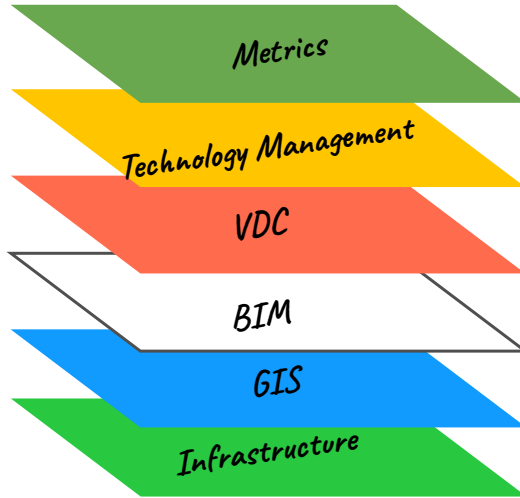


VDC og digital infrastruktur - Ukraine

24. Februar 2022







Katrin Johannesdottir
Mentor for Stanford at VDC Ukraine program

Co-founder VDC Metrics
Owner of VDC Infra (Iceland)

katrinjo@stanford.edu
katrin@vdcmetrics.com

<https://www.linkedin.com/in/katrin-johannesdottir/>



My VDC journey started in 2017



VDC Mentor Workshop
Stanford University
June 12-13, 2019

*Part of the international
VDC mentorgroup since
2019*

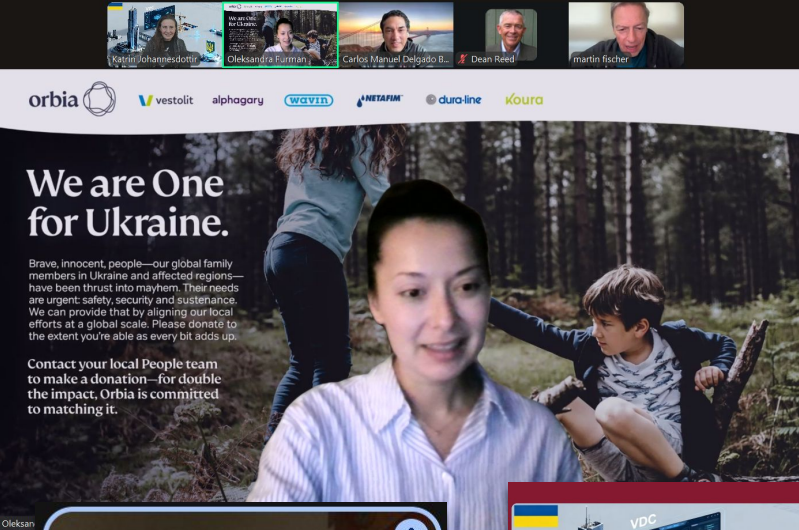
*VDC mentor in the first big
scale course in Norway 2020*



*VDC mentor for
the international
group 2023*



*Senior Mentor with the international
group on the fourth big scale Norwegian
course 2025*



Professor: Martin Fischer

Mentors:

Dean Reed

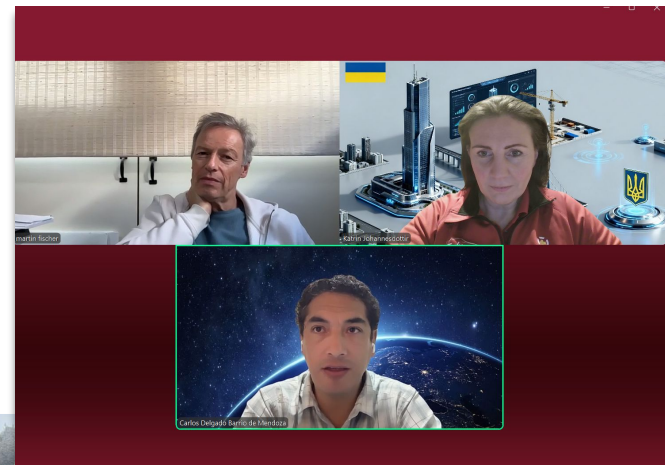
Katrin Johannesdottir

Evelyne Jost

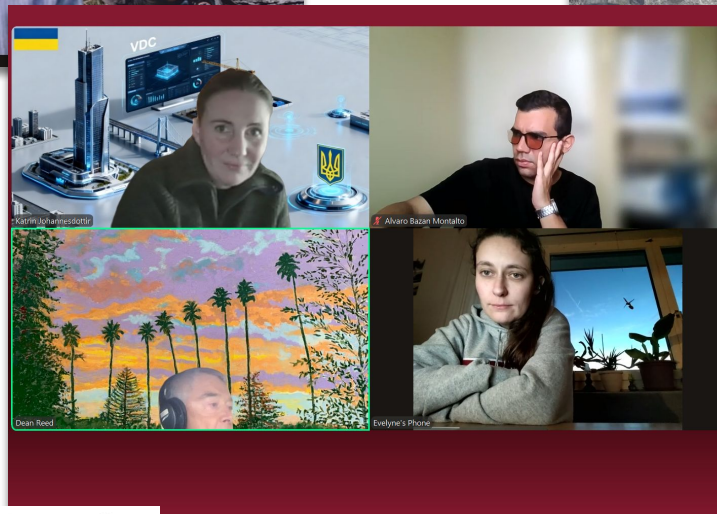
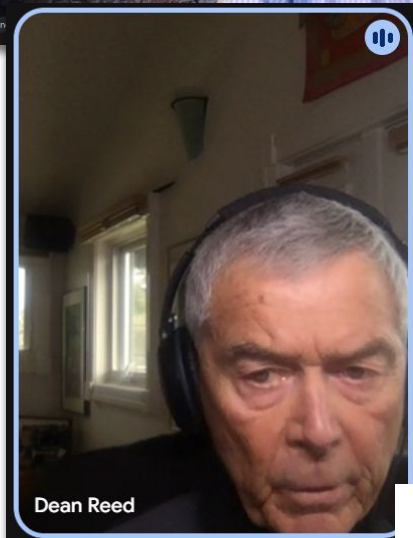
Carlos Manuel Delgado

Alvaro Daniel Bazan Montalto

Oleksandra Furman



Oleksan



Center for Innovation
FORMERLY CICI





For ett år siden var en avtale mellom Dobrobat og Stanford Engineering Center for Global & online Education signert om program for å lære opp folk fra bygg og anleggsbransjen i Ukraine Virtual Design & construction, VDC.

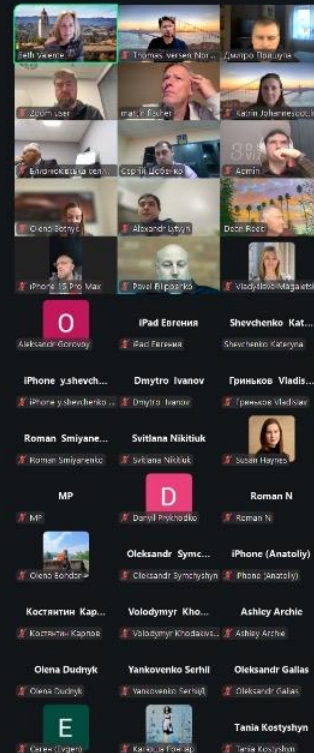
Oppstart i oktober

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Welcome

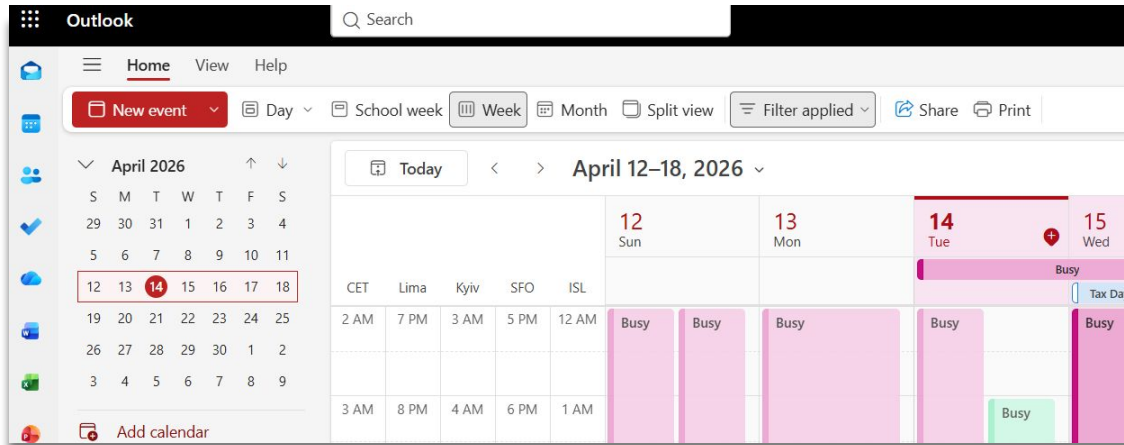
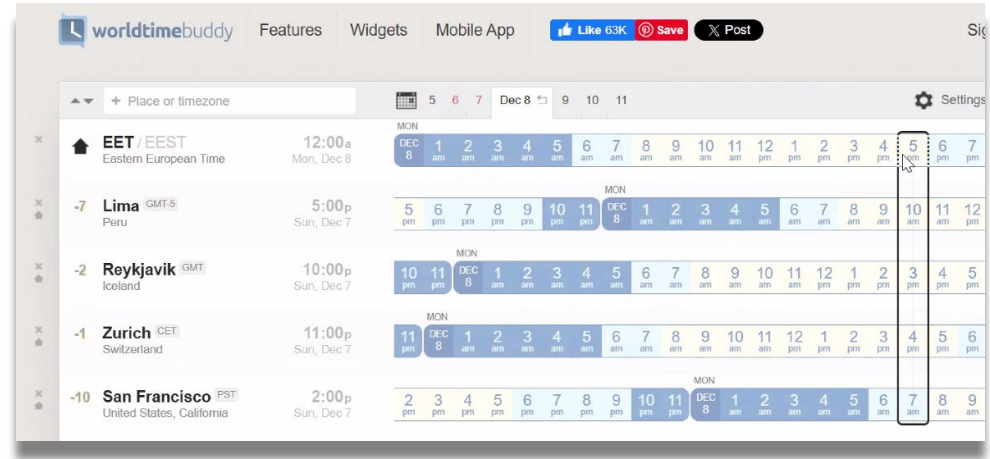
Virtual Design and Construction

Stanford Center for Global & Online
Education - 10/20/25



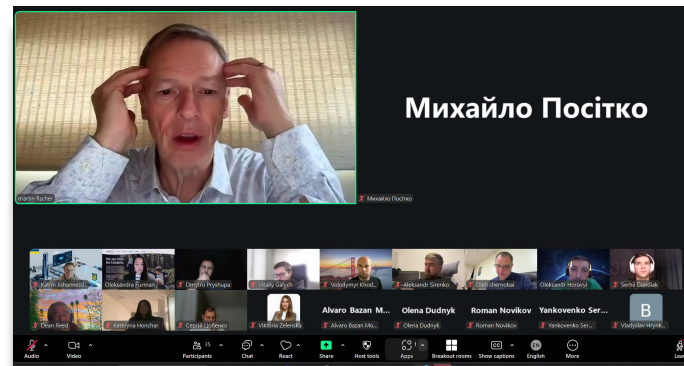
Utfordringer

- Forskjellige tidsoner
- Språk
- Elektrisitet & Internet
- Digital resources
- Digital infrastruktur



Utfordringer

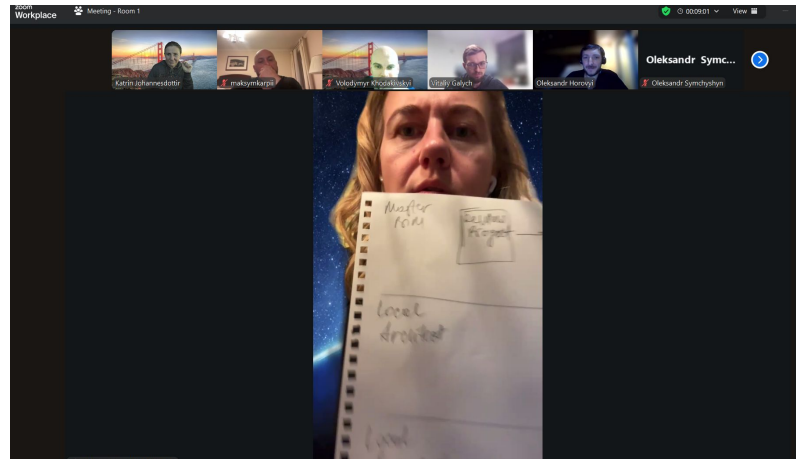
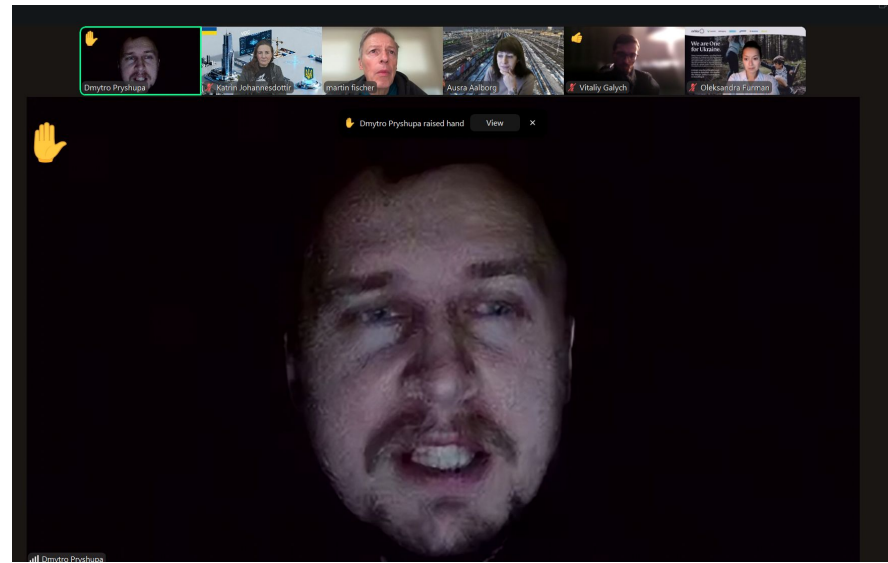
- Forskjellige tidsoner
- Språk
- Elektrisitet & Internet
- Digital resources
- Digital infrastruktur



- 🗣 Флайн Автоюга Фейсбук-губс куди не був контракт А тут.
- 🗣 Я почав використовувати новий регіон телефону, який видавав студент, Це асоціювати свої імпорт останній фільм, Це такий фільм, що виловий ліквідувати в тебе?
- 🗣 Сплачувати десь карпером бігти я з ним про це шанс банк має час проведення Так, Вони підтримують

Utfordringer

- Forskjellige tidsoner
- Språk
- Elektrisitet & Internet
- Digital resources
- Digital infrastruktur



Utfordringer

- Forskjellige tidsoner
- Språk
- Elektrisitet & Internet
- Digitale resurser
- Digital infrastruktur
- Digital implementering



Sustainable Housing First for Ukrainian Recovery

Project Name

Reducing project implementation time from 24 to 18 months by applying VDC elements to reduce number of clashes and rework, as well as decision-making latency while staying within the set budget

Title of your VDC Application

Monthly Report #3

Date: 14.03.2026

Oleksandr Horovyi
Project Consultant
NGO Dobrobat
Mentor Group 2



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Project objectives implementation challenges

Lack of the manufacturer's understanding how the final product should look like, as this is a pilot project

Lack of experience for VDC implementation for any of the project stakeholders

Unclear circular economy and ESG requirements set by the grantor

War-related issues effecting works in Ukraine: shortfall in skilled personnel, long-lasting regulatory approvals and unclear regulations, customs-related issues, an increase in the cost of materials due to the destroyed manufacturing plants.

a grant and cannot be in the prices for materials both in Ukraine and in Europe. is attracting additional funding from the third party.

Stakeholders responsible for specific issues don't always prepare for ICE sessions properly resulting in some issues being unresolved and forcing their review at the next session

Var-related issues effecting works in Ukraine: shortfall in skilled personnel, long-lasting regulatory approvals and unclear regulations, customs-related issues, an increase in the cost of materials due to the destroyed manufacturing plants.

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Construction of underground (shelter) kindergarten

Project Name

Implementing VDC to Deliver an Underground Kindergarten on time and for community resilience

Title of your VDC Application

Monthly Report 4

February 2026

Date: 14.03.2026

- Oleh CHERNOBAI
- Mayor
- Pischyn Community
- Mentor Group 2



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VDC implementation summary

Project Objective(s)

To create a feasible, safe (100 kPa, CC3), inclusive facility for 400 children, with a minimum number of collisions (52% of alterations), within the budget – UAH 192,808.322 and the schedule – to put into operation by August 1, 2026.

VDC Application Objective

Ensuring effective coordination of all project participants, where ICE accelerates decision-making (< 24 hours), PPM stabilizes the schedule (≥ 95%), BIM ensures installation accuracy (0 rework), shelter strength verification (simulations, experiments), VIA supports financial sustainability, which together allows reducing risks and completing the project on time by August 1, 2026.

Objective(s) for VIA

- 100% visuals used to engage donors;
- VIA: Shelter Safety Research;
- Use of 3D/animation to support decision making – 100% of technical decisions made within < 24 hours.

Client Objective(s)

Client Objective(s)

- Availability of a functioning underground kindergarten for over 400 preschoolers from August 2026, so that children can safely attend the institution from September 1, 2026.

- Create conditions for families with children to remain in the community and facilitate the return of about 3,000 residents who have left for safe regions (over 10% of the population).

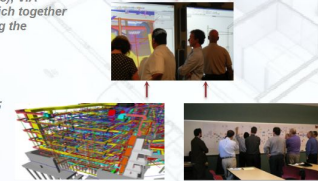
- Provide shelter for over 1,500 local residents during enemy attacks.

Objective(s) for ICE

- ≥ 22 ICE sessions/week
- 295% participation of key stakeholders
- 100% of expert comments entered into BIM 524 hours
- ≥ 290% of issues closed in one ICE session
- Decision time 524 hours

Objective(s) for PPM

- Objective(s) for PPM
- ≥ 95% weekly plan execution.
- Adaptive rescheduling within ≤ 24 hours after disruptions (weather, layoffs);
- 0 days of delay in key milestones.



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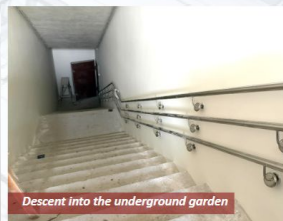
Picture(s) illustrating your VDC implementation

Client Objective(s)

• Availability of a functioning underground kindergarten for over 400 preschoolers from August 2026, so that children can safely attend the institution from September 1, 2026.

• Create conditions for families with children to remain in the community and facilitate the return of about 3,000 residents who have left for safe regions (over 10% of the population).

• Provide shelter for over 1,500 local residents during enemy attacks.



Reconstruction of the Boiler Room

The boiler room operates in automatic mode from 06/25/2026 with a 20% improvement in energy efficiency and a 20% reduction in emissions

Monthly Report #3

Date: 14.03.2026

Khodakivskyi Volodymyr
Technical director
Komunalne pidpriemstvo teplozabezpechennia
Mentor Group 2

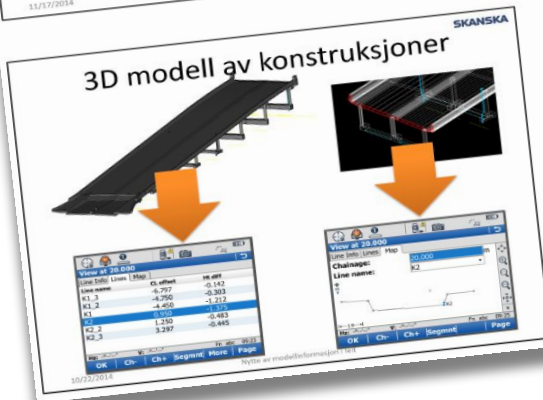
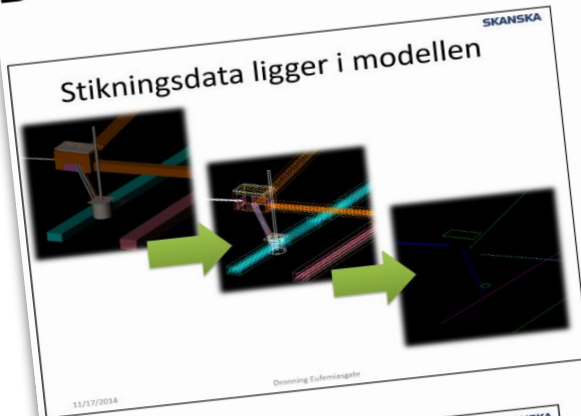


Utfordringer

- Forskjellige tidsoner
- Språk
- Elektrisitet & Internet
- Digitale resurser
- Digital infrastruktur
- Digital implementering



Dronning Eufemiasgate — 2012-2015





How Scandinavia is Leading the way to Gain Value from Model-Based Projects

Client requirements are pushing the industry forward

Presented By: Ed & Katrin

February 9-12, 2023 | The Inn at Spanish Bay

01

How model-based Design and Construction became the de facto standard in Norway

02

Customer requirement trends in a BIM mature market

03

What does the users ask for when working fully model based?

04

What next steps are already being tested and what improvements should we focus on

Hva er POFIN?

POFIN er et nasjonalt rammeverk for BIM utviklet og forvaltet av buildingSMART Norge.

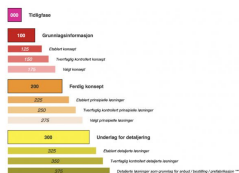
Digital prisforespørsel – NS 3459

NS 3459 er en omforent og leverandøruavhengig standard for overføring av data mellom forskjellige programmer for beskrivelse og kalkulasjon, og tilbud basert på poster beskrevet etter NS 3420 eller prosesskoder fra Statens vegvesen og Bane NOR. Dette XML-skiemaet blir ofte omtalt som NS 3459-formatet.

MMI-veilederen 2.0

MMI-veilederen er utarbeidet i et samarbeid med representanter fra Entreprenørforeningen Bygg og Anlegg (EBA), Maskinentreprenørenes Forbund (MEF), Rildgivende Ingeniørers Forening (RIF), Arkitektbedriftene i Norge (AIN) og Statens vegvesen. Nye vrier, Bane NOR og Statsbygg.

Foreliggende versjon erstatter tidligere utgitte veiledere og representerer samtidig en harmonisering av kravene til bruk av MMI for domeneene Bygg og Samferdsel. Enkelte av kodene i foreliggende versjon avviker fra tidligere versjoner. Veilederen er for øvrig utformet slik at den også er mulig å anvende i andre domener.



2.1 Hovedprosesser

2.1 Hovedprosesser

- | | |
|-----------------|--|
| Hovedprosess 0 | Til internt bruk |
| Hovedprosess 1: | Forberedende tiltak og generelle kostnader |
| Hovedprosess 2: | Sprengning og masselytting |
| Hovedprosess 3: | Tunneler |
| Hovedprosess 4: | Grofter, kummer og rør |
| Hovedprosess 5: | Vegfundament |
| Hovedprosess 6: | Vegdekke og miljøtiltak |
| Hovedprosess 7: | Vegutstyr og kaier |
| Hovedprosess 8: | Bruer og kaier |
| Hovedprosess 9: | Til bruk for drift og vedlikehold |

Avia is Leading the Way to Model-Based Projects

Construction became

In a BIM mature market

When working fully model

being tested and what
focus on

Veidekke, Skanska, Kruse Smith, RIF og Arkitektbedriftene klare med digital veileder: - Bransjen overmoden for modenhetsindeks

EBA, RIF og Arkitektbedriftene i Norge lanserte nylig en manual for Modell-Modenhets-indeks (MMI) i byggenæringen. Tiden er mer enn moden, mener bagefterlymte.

2021-05-02 21:08:29

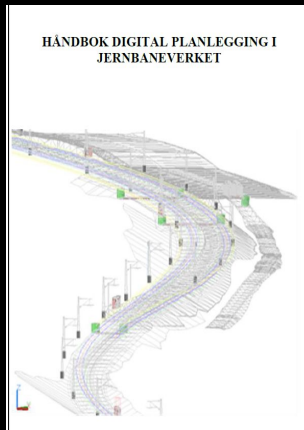
Granska, Kruse Smith, RIF og
Støttere med digital veileder: - Bransjen

Thor Gunnar Hansen (Hæhre), Magnus Norgren (Sweco), Nina Rognlien (Sweco), Andreas Haugnotn (Vianova), Katrin Johannsdottir (Skanska), Steinar G. Rasmussen (Hæhre), Jon-Anders Nygård (Kjosås Maskin), Øystein Lystad (Asplan Viak), Sigurdur Jens Sigurdsson (Multiconsult) har bidratt til arbeidet om å utarbeide en Modell Modernhets Indeks (MMI) for samferdselsprosjekter.

Norwegian public roads administration 2012 ->



BaneNOR (Railway projects) 2013 ->



Nye Veier ("New Road Client") 2017 ->



E6 Arnkvern - Moelv

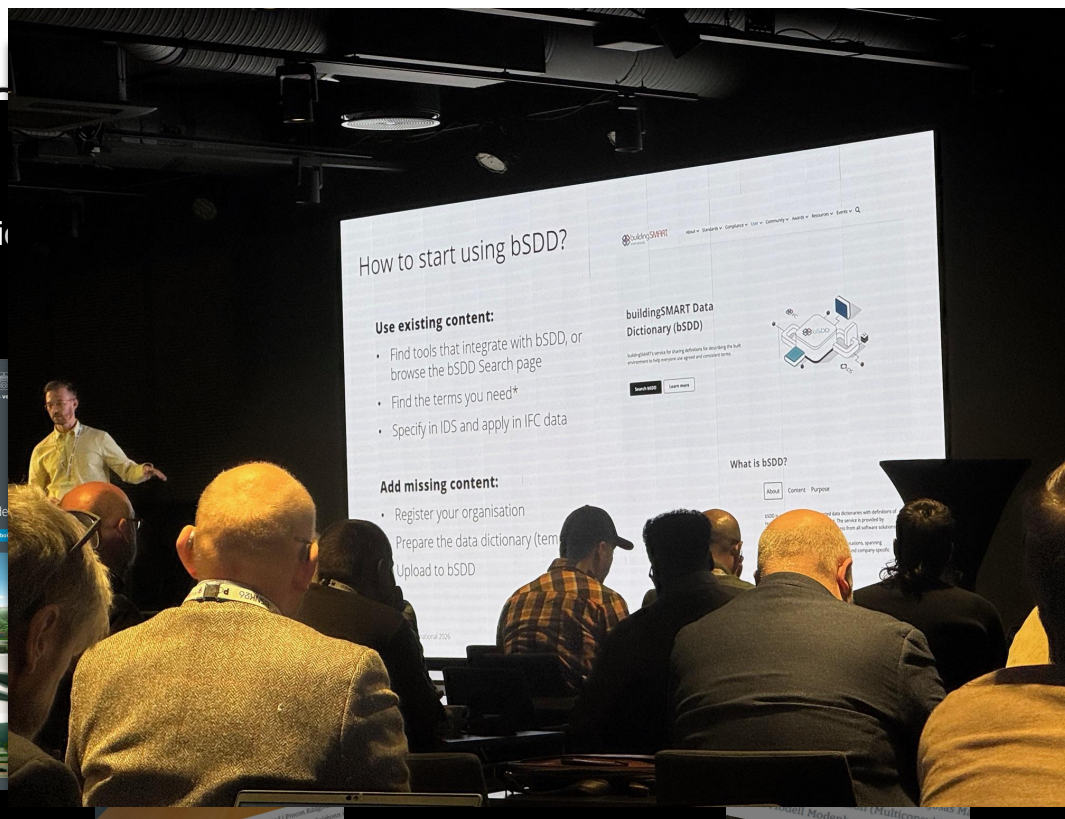
Konkurransegrunnlag

Kapittel D1.2 Krav til prosjektering og utførelse

Veidekke, Skanska, Kruse Smith, RIF og Arkitektbedriftene klare med digital veileder: - EBA, RIF og Arkitektbedriftene i Norge lanserte nylig en manual for Modell-Modenhets-Indeks (MMI) i byggenæringen. Tiden er mer enn moden, mener bidragsyterne.



Norwegian public roads administrati 2012 ->



veier v Road Client") 2017 ->

NyeVeier

5 Arnkvern - Moelv
konkurransegrunnlag
kapittel D1.2 Krav til prosjektering og utførelse

Way to Objects

became

ture market

fully model

d what

Veidekke, Skanska, Kruse Smith, RIF og
Arkitektbedriftene klare med digital veileder: -
overmoden for modenhetsindeks

EBA, RIF og Arkitektbedriftene i Norge lanserte nylig en manual for Modell-Modenhets-Indeks (MMI) i byggenæringen. Tiden er mer enn moden, mener bidragsytterne.



Utfordringer

- Forskjellige tidsoner
- Språk
- Elektrisitet & Internet
- Digital resources
- Digital infrastruktur
- Digital implementering



Implementation Plan

November 2025

First Name Vladyslava
Surname Magaletska
Company Sherp Global
Role Member of the
supervisory board



VDC Application:
Summary of your application



Stanford | ENGINEERING
Center for Global & Online Education

Implementation Plan

November 2025

First Name Artem
Surname Stupakov
Company Ocado Technology
Role VDC Integration & Quality
Systems Manager

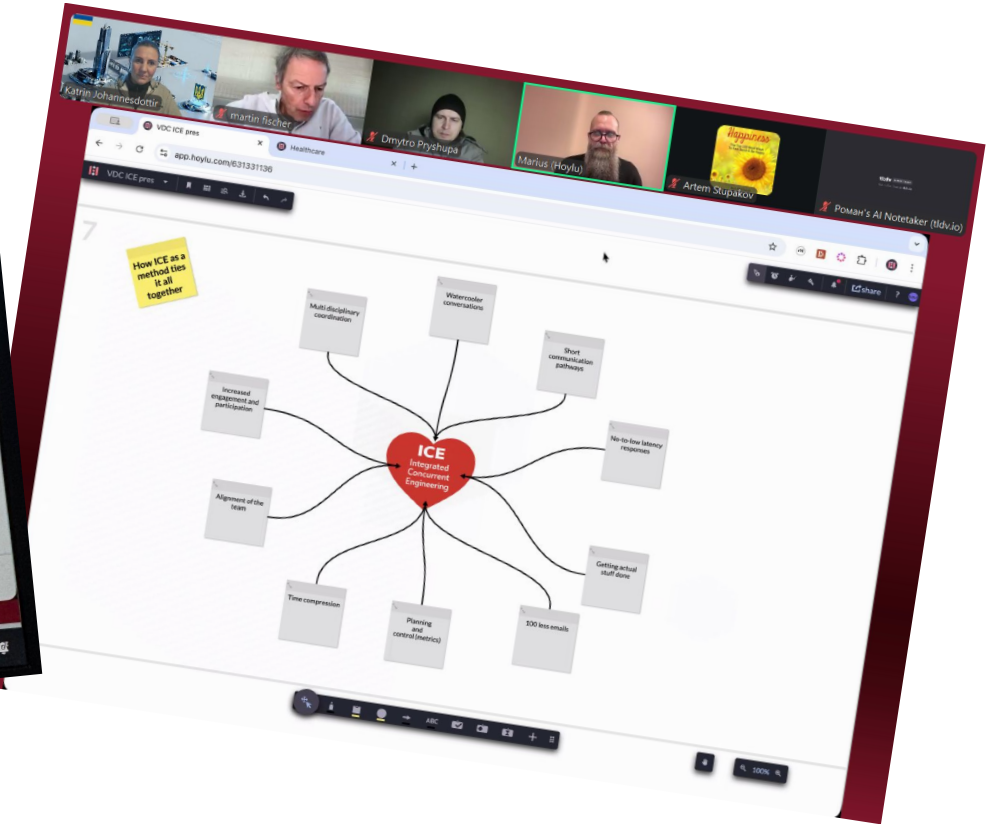
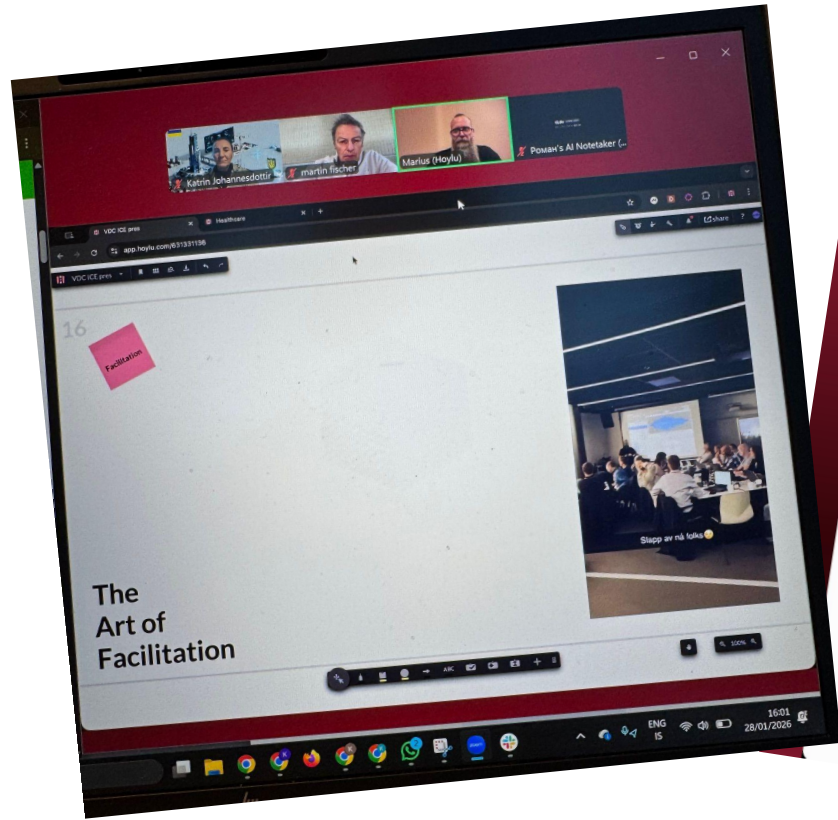


VDC Application: Implementation of AI-driven VDC workflows for the Phoenix CFC, focusing on BIM coordination (LOD 350–400), integration of Ocado Smart Platform with Kroger's AI Factory, and quality validation to ensure clash-free order assembly and efficient delivery.

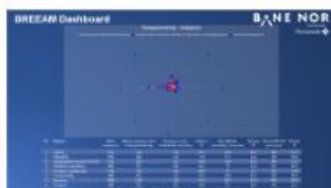


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Dele beste praksis fra Norge

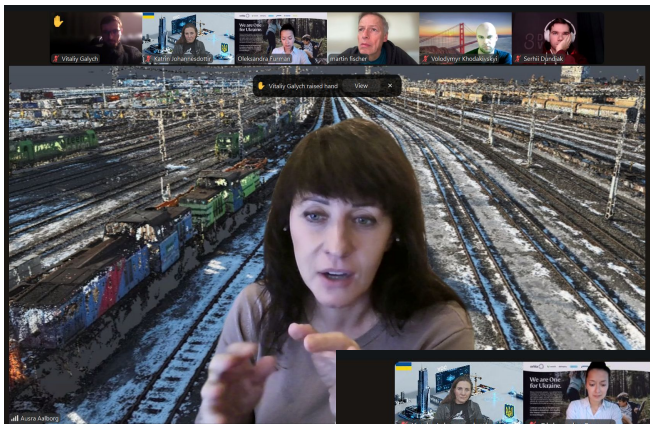


Erfaringsoverføring - Databasert prosjektstyring



79 %
PPU
40 %
PPU sist uke

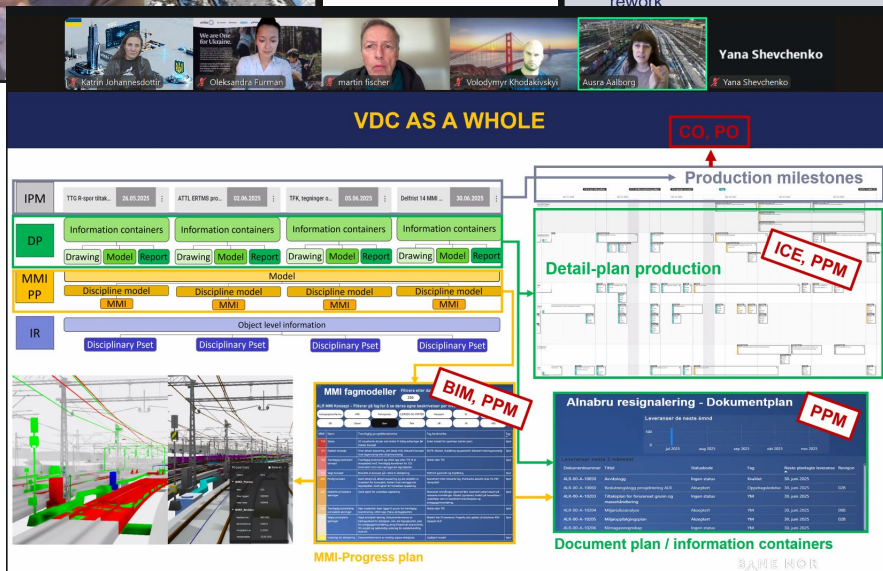
Dele beste praksis fra Norge

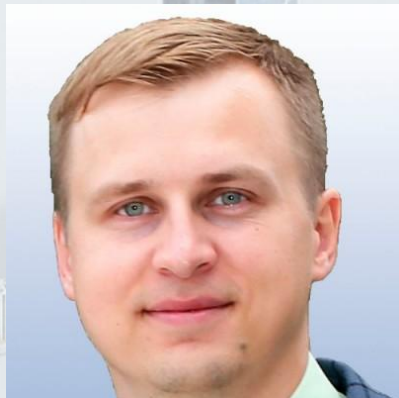
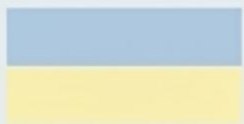


VDC – Which Elements Does the Consultant Believe Provide the Most Value in the Project?

Key benefits identified:

- Full project overview
- Detailed task planning
- Streamlined processes – enabling faster and more informed decision-making
- Active involvement of users and decision-makers – resulting in less rework





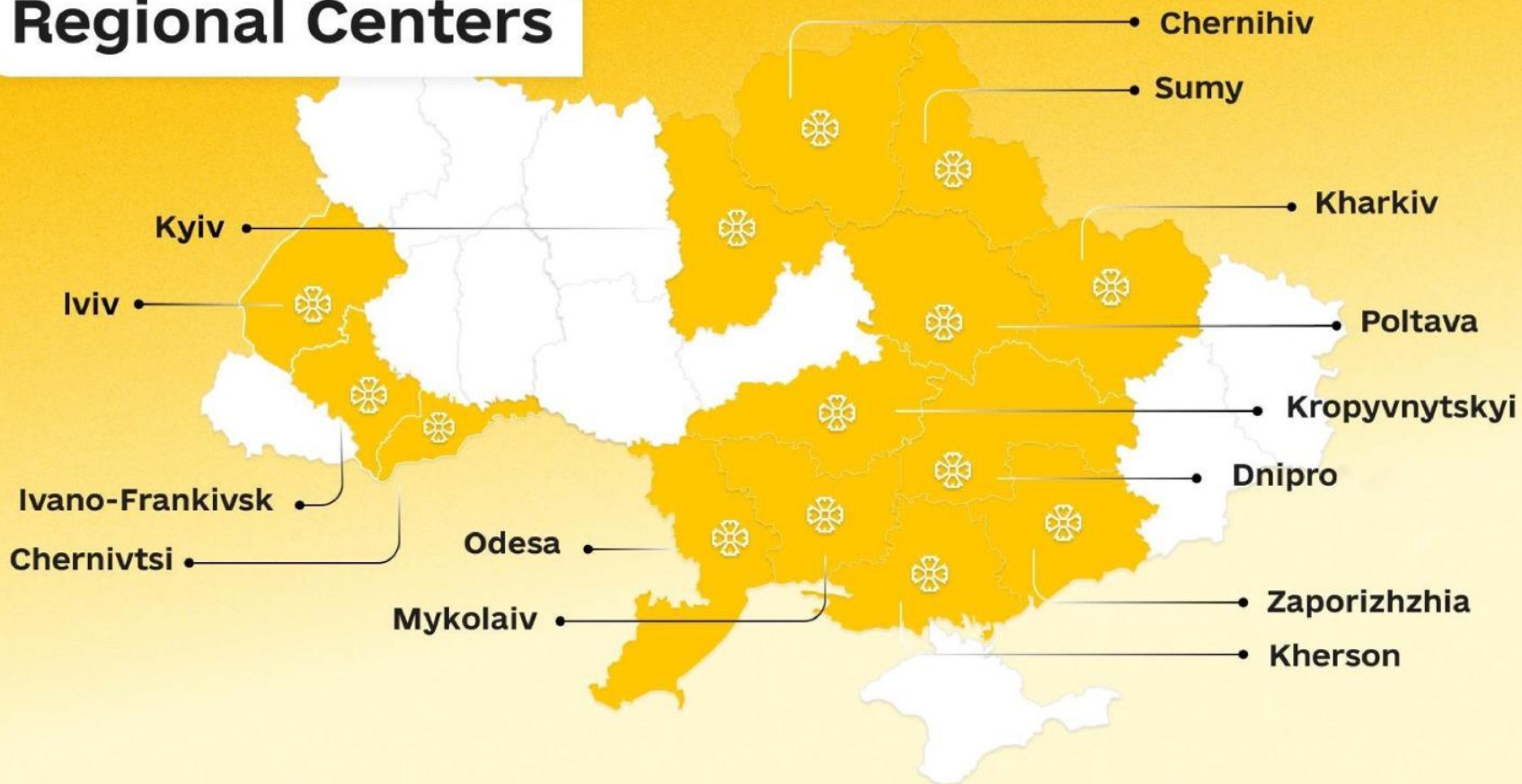
Online Call

*Dmytro Pryshua
Дмитро Пришупа
VDC Ukraine program manager*

[linkedin.com/in/дмитро-пришупа](https://www.linkedin.com/in/дмитро-пришупа)



Regional Centers





> 54,000

volunteers have joined Dobrobat



20,000

tons of debris cleared and removed



20,000

windows installed



> 10,000

homes and 120 infrastructure facilities
restored



10,000

roofs repaired



10,000

families now have a brighter future

Volunteers



Before



After



Keys to Successful Partnerships





Q&A

Katrin & Dmytro



Dobrobat

Fighting Together – Rebuilding Together!