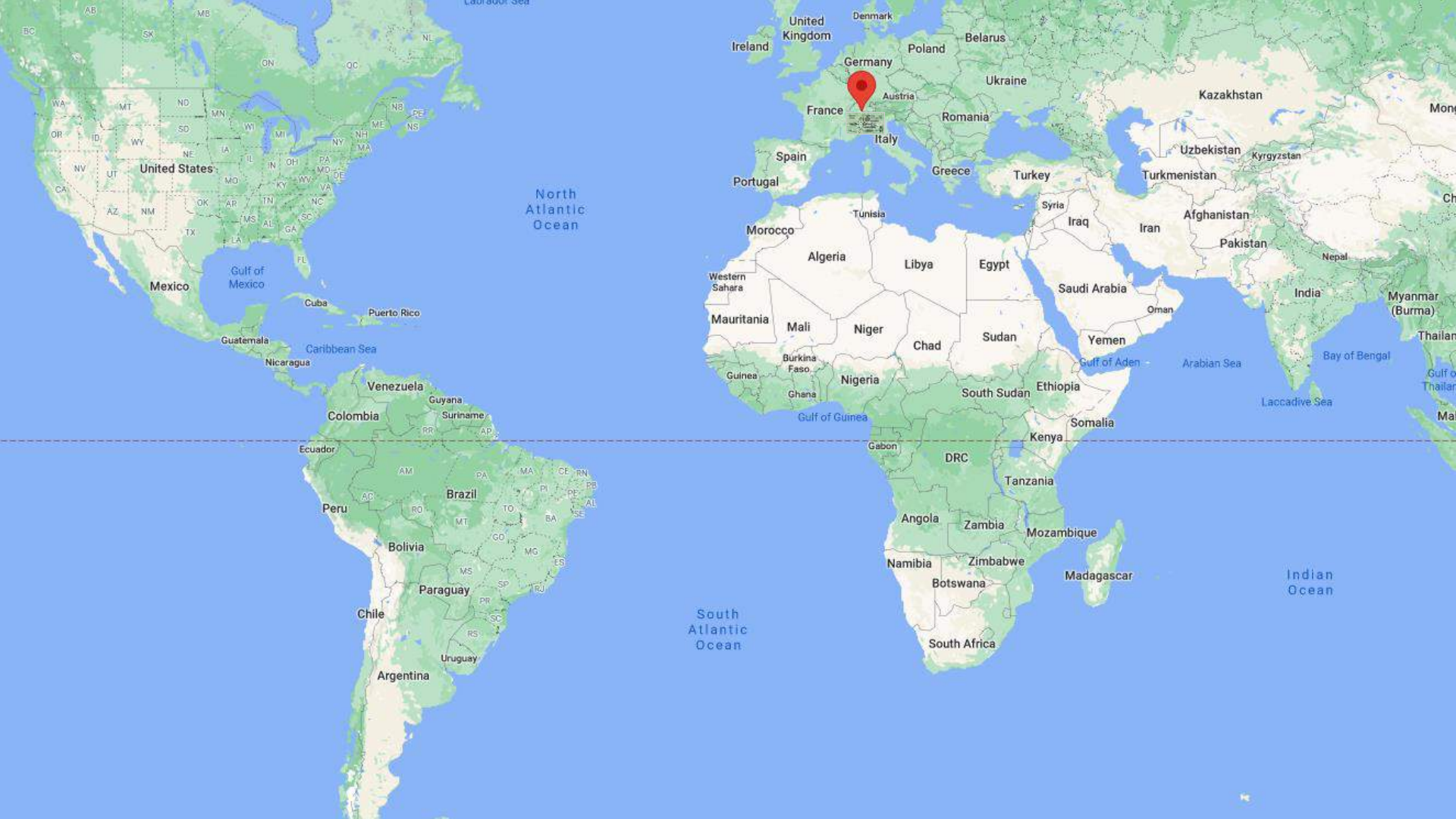


# VDC in Switzerland

Peter Scherer, Institute for Virtual Design and Construction





**Area:**

**Population:**

**Language:**

**41'285 km<sup>2</sup>**

**8,545 Million (2020)**

**60 % German Speaking**

**30 % French**

**10 % Italian and Romansh**



**Political System:**

**direct democracy**

**26 independent cantons**

**subsidiarity principals**

**GDP:**

**Construction:**

**703 Billion USD / Y | 80 kUSD p.p.**

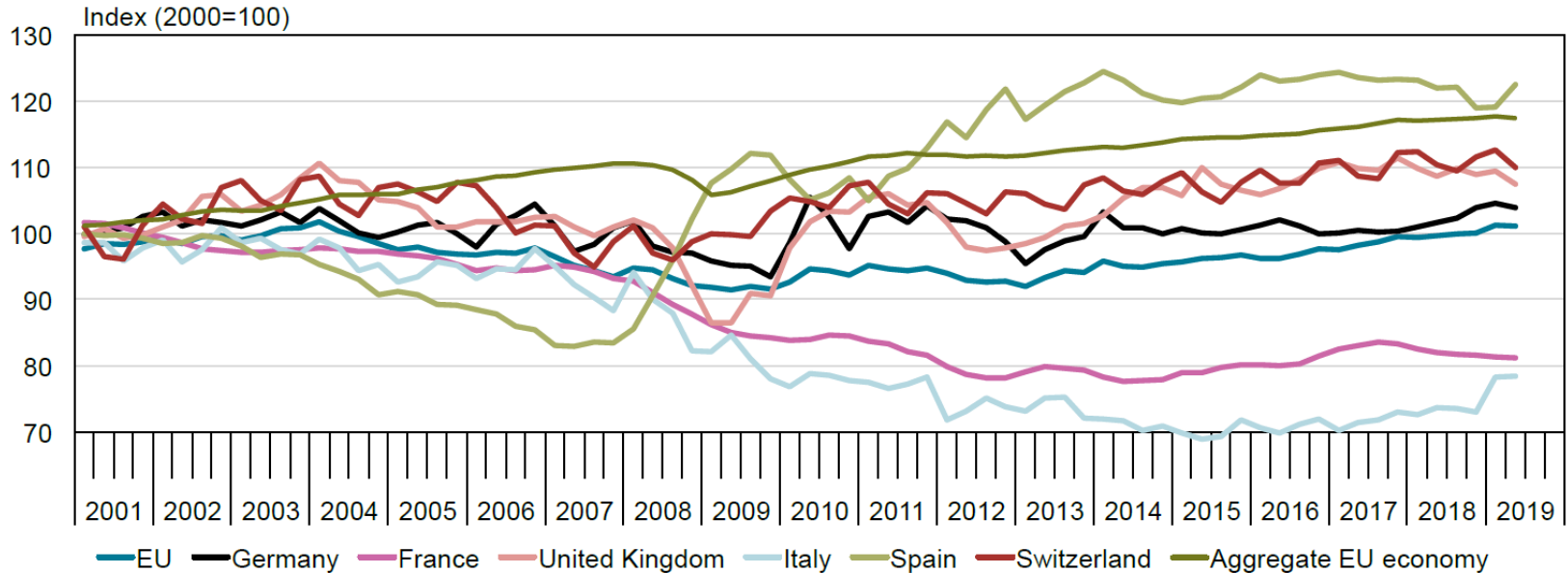
**65 Billion USD / Y**



<https://map.geo.admin.ch>

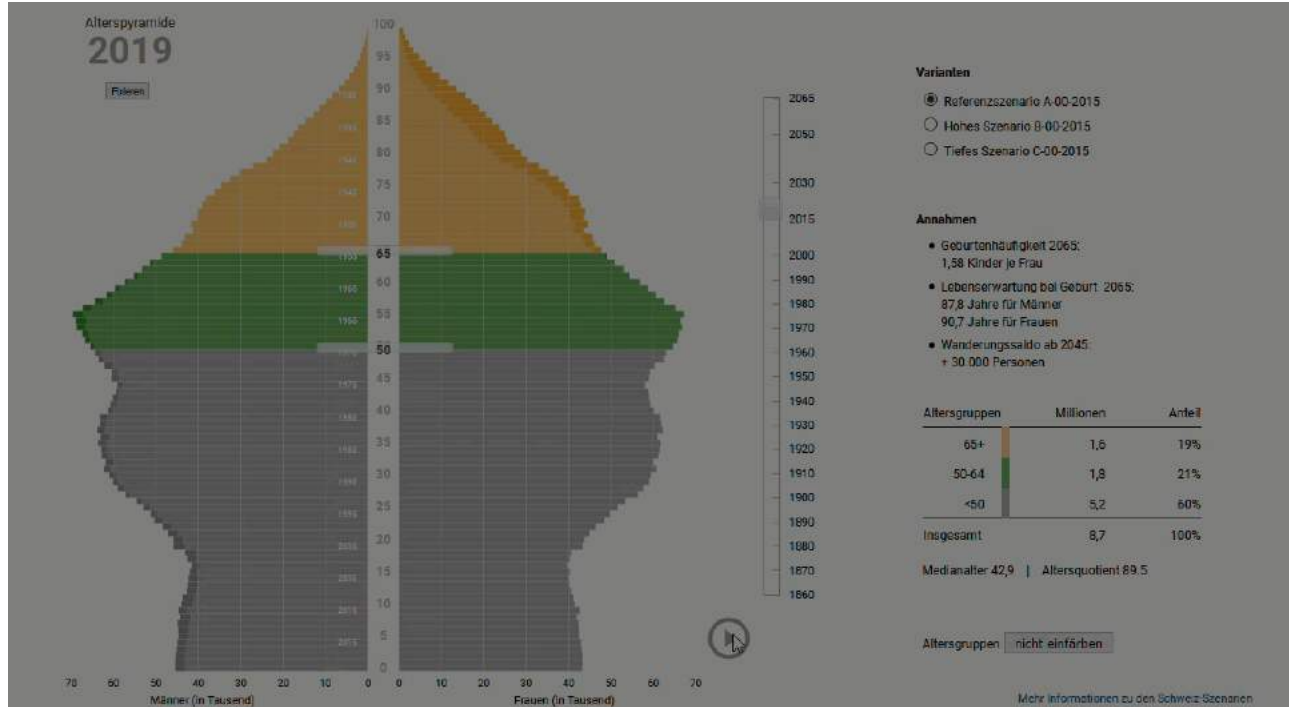


# Productivity in Switzerland and Europe



Source: ETH Zürich, KOF, Eurostat

# Demographic development in Switzerland



Source: [Bundesamt für Statistik](#)



**Swiss High-Performance Building**









**Swiss High-Performance Building**

# my personal VDC Application



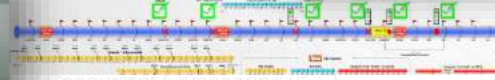
Ziele als Formalziele  
*Objectives (FO)*



Ziele als Sachziele  
*Objectives (PO)*

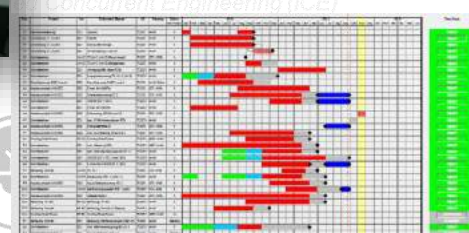
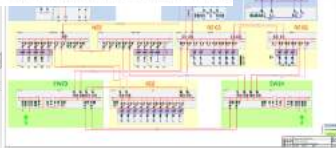


Arbeits- & Produktionsziele  
*Production Metrics*



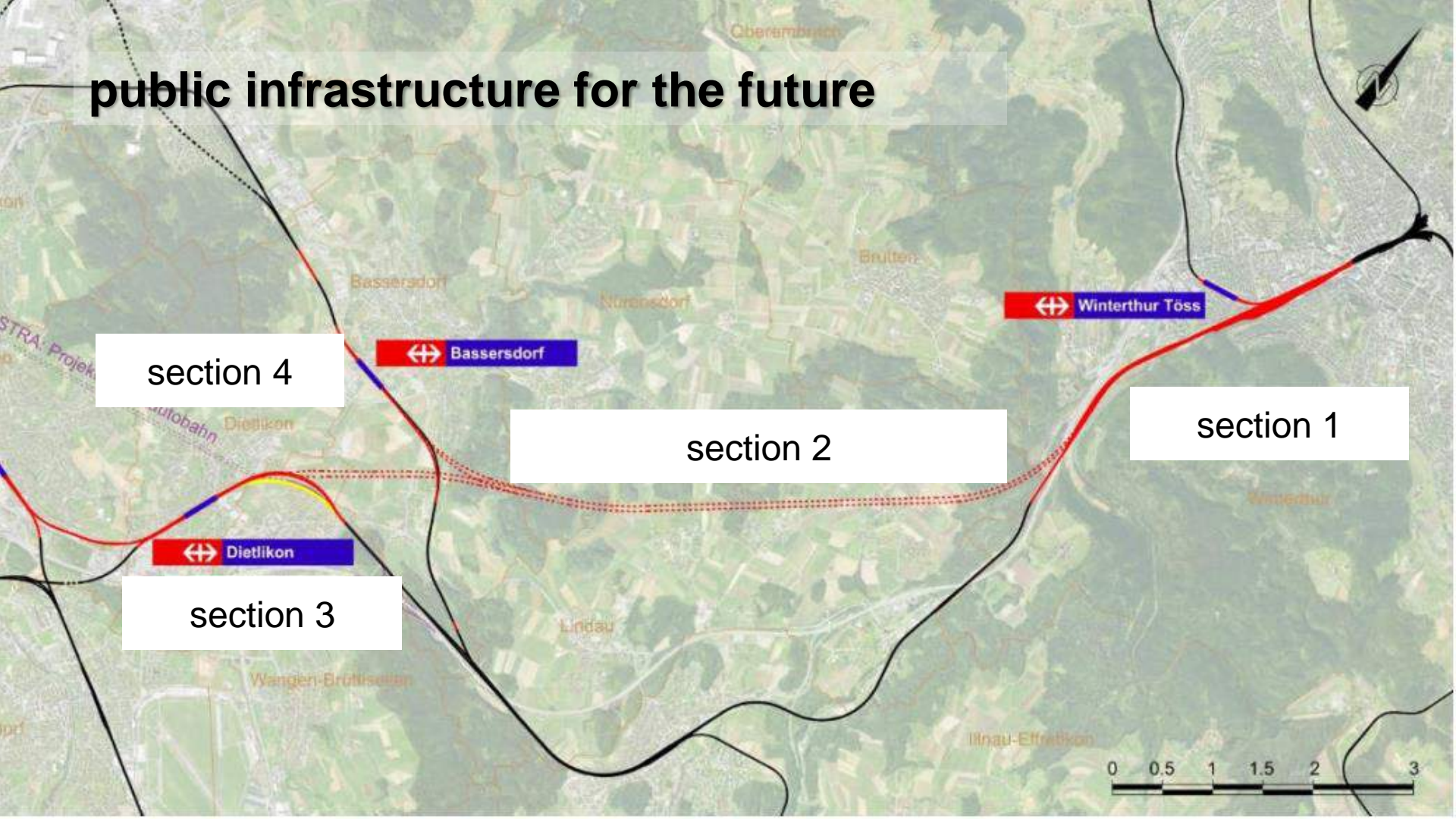
Zielwerte  
*Targets*

dig  
Building Inf



Massnahmen  
*Controllable Factor*

# public infrastructure for the future



section 4

↔ Bassersdorf

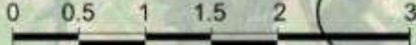
section 2

section 1

↔ Winterthur Töss

section 3

↔ Dietlikon



# typical Swiss VDC Application for infrastructure



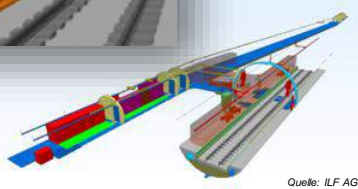
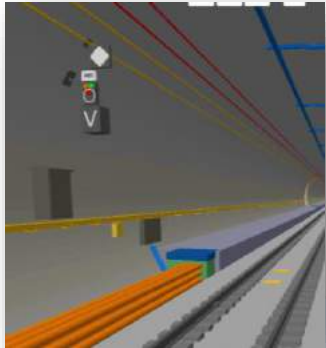
Quelle: SBB AG



Quelle: Peter Scherer



Quelle: Peter Scherer

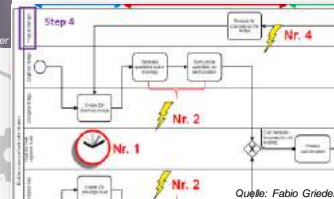


Quelle: ILF AG

als Formalziele  
Objectives (CO)

als Sachziele  
Objectives (PO)

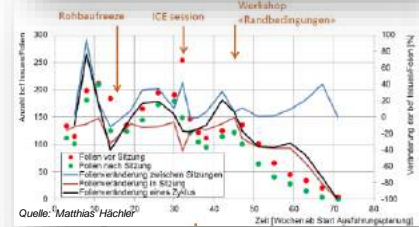
gleichzeitige Zusammenarbeit  
Concurrent Engineering (ICE)



Quelle: Fabio Grieder



Quelle: Fabio Grieder



Quelle: Mathias Häfner

Massnahmen  
Controllable Factor

ment  
PPM

# tunnel inspection – handover



# typical Swiss VDC Application for buildings



als Formalziele  
Objectives (CO)

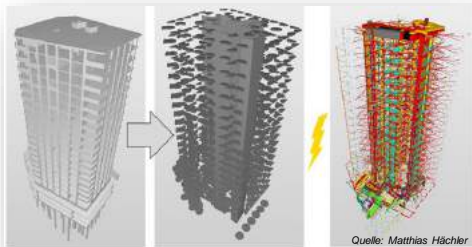


als Sachziele  
Objectives (PO)

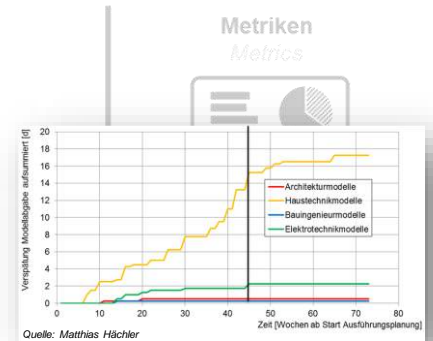
Quelle: Matthias Hächler



Quelle: Peter Scherer

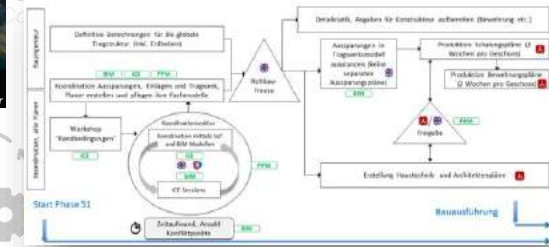


Quelle: Matthias Hächler



Quelle: Matthias Hächler

## gleichzeitige Zusammenarbeit



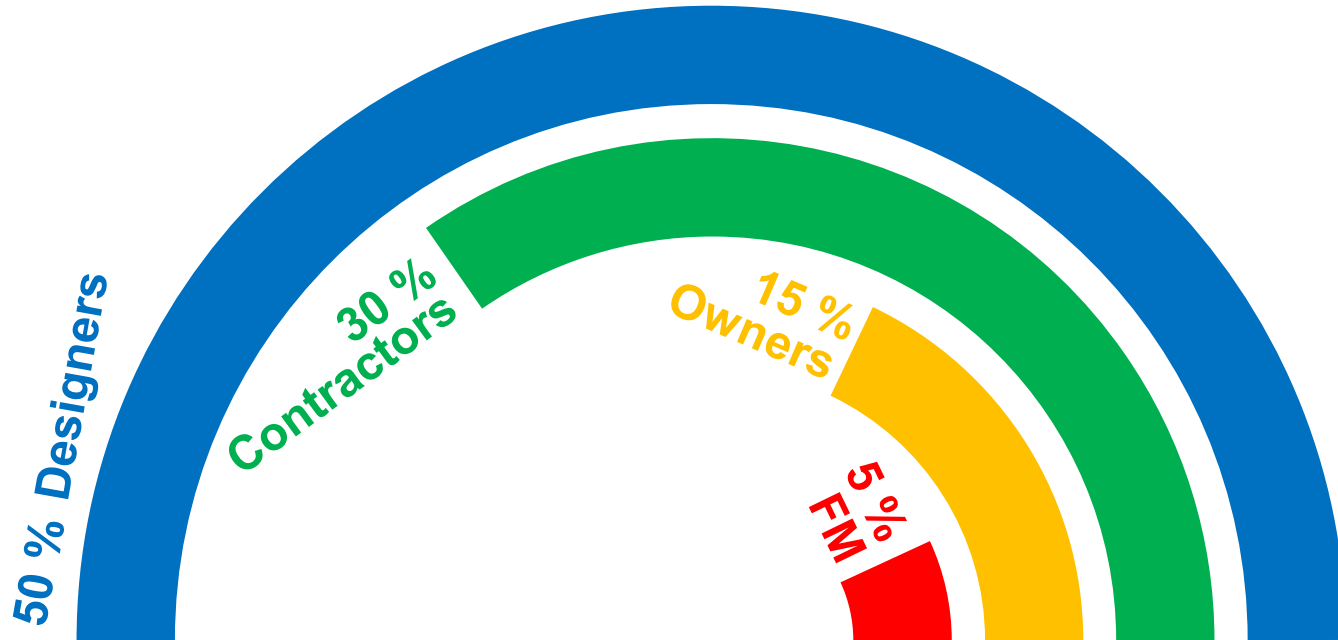
Quelle: Fabio Grieder



digital workflow on an average construction site?



# Design driven VDC applications



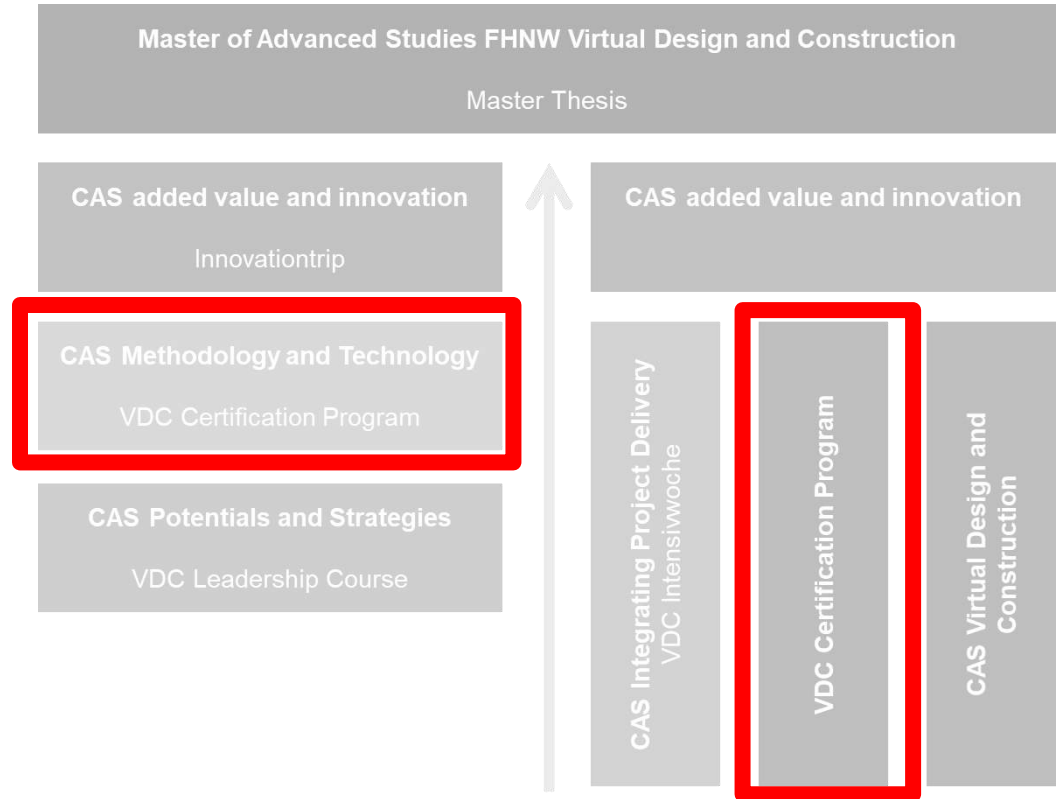
# Professional VDC Education since 2013

VDC Certification Program is integrated in the curriculum since 2013.

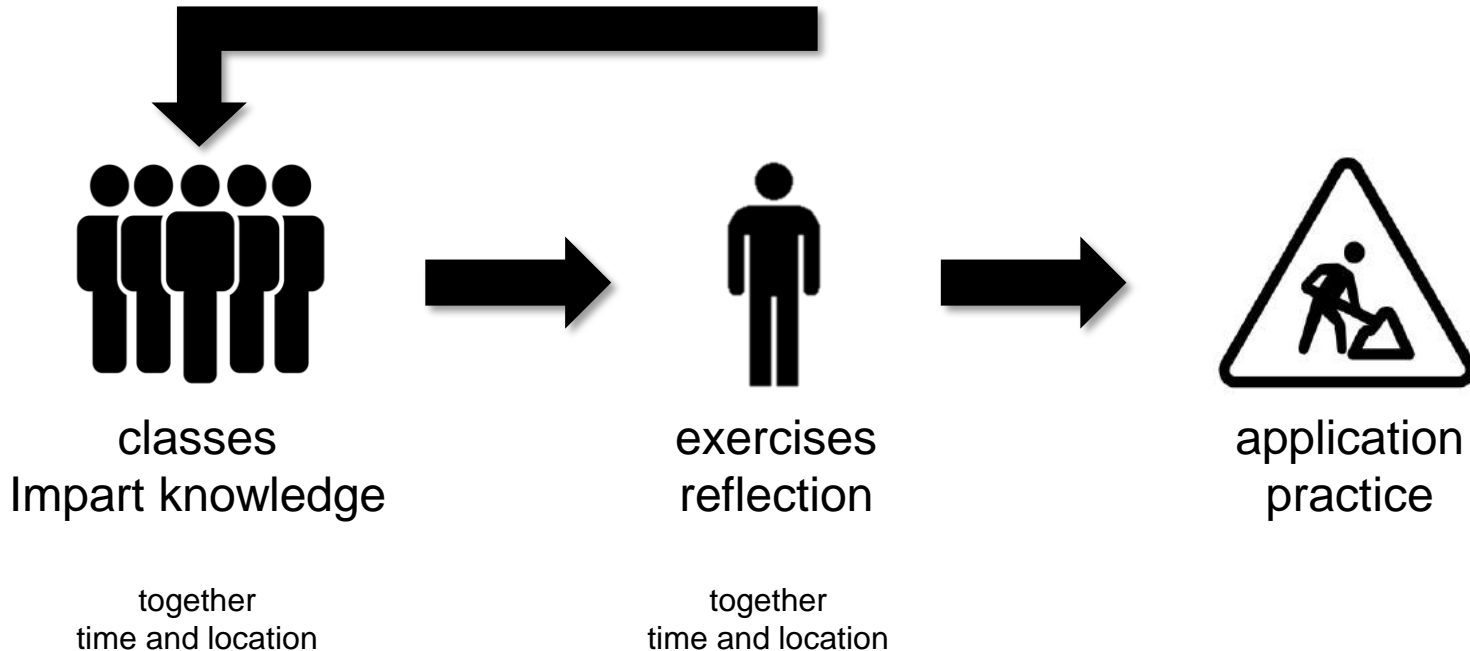
~ 250 VDC Alumni since 2013

25 Students per year

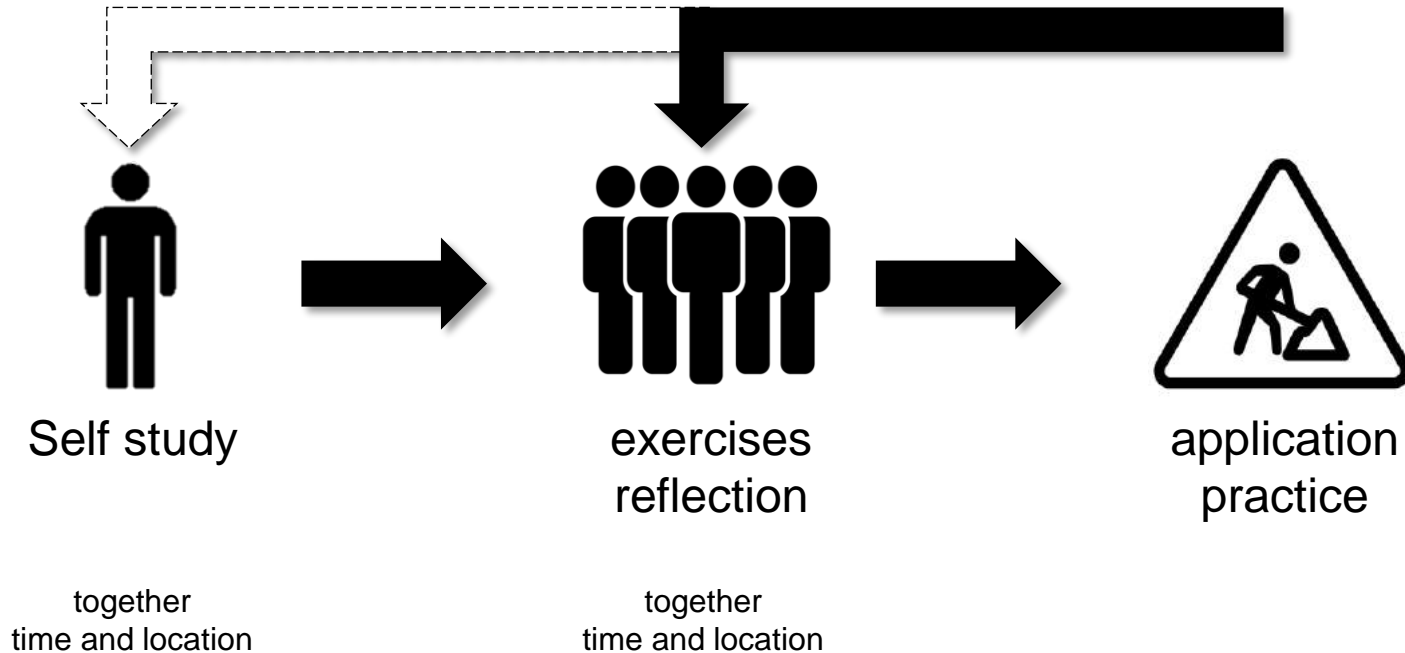
60 additional via VDC certification



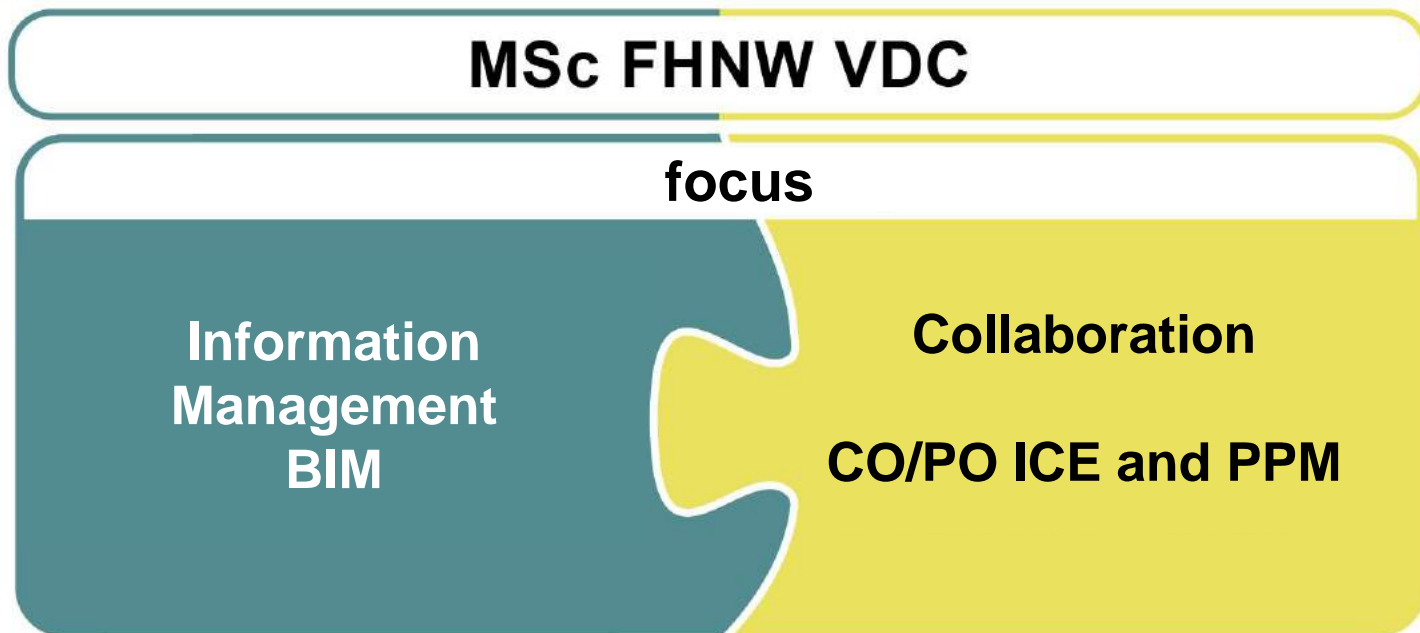
# VDC Education – shift from learning to ...



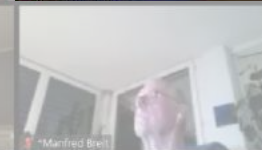
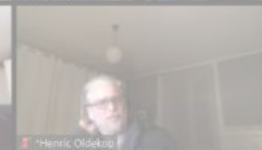
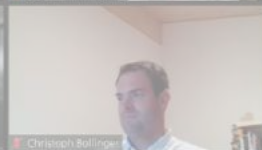
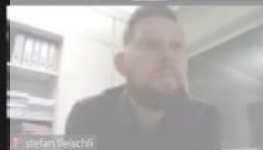
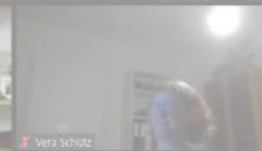
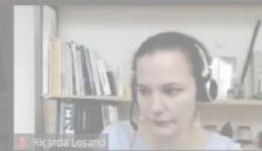
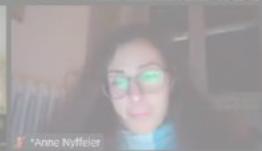
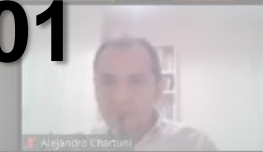
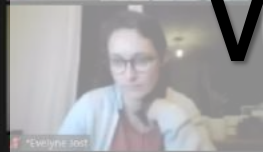
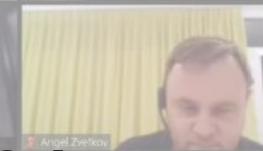
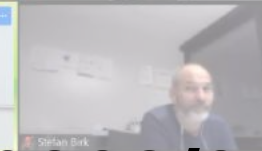
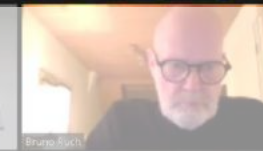
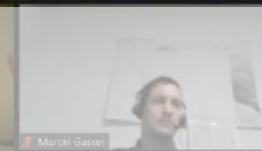
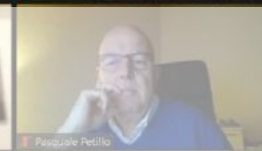
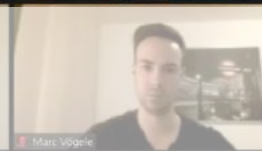
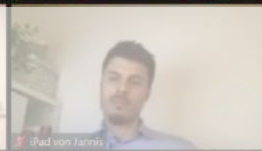
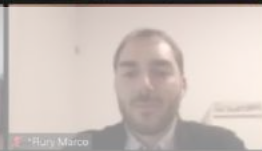
## ... enabling



# Master of Science in Virtual Design and Construction starting autumn semester 2021



# VDC Large Scale Program 2020/201



# VDC Certification Program 2020/2021

August | September

October | November

December | January

February | March

April | May

June | July

VDC and metrics

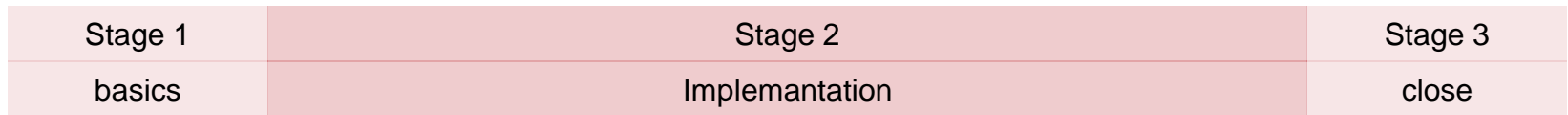
ICE

PPM

BIM

IPD

VDC as a whole



~ 2 Months

~ 8 Months

~ 2 Months

# VDC Glossary

n|w Fachhochschule Nordwestschweiz  
Hochschule für Architektur, Bau und Geomatik

Glossar Digitale Projektentwicklung und Immobilienmanagement

Home Terms Table

## VDC Glossar

VDC: Virtual Design and Construction

Die Begrifflichkeiten rund um das digitale Planen, Bauen und Bewirtschaften werden unterschiedlich interpretiert. Die hier verwendeten Begriffe und Definitionen wurden recherchiert und dienen der gemeinsamen Verständigung. Im Glossar werden Begriffe und Definitionen beschrieben, die für die Befähigung im Rahmen der Aus- und Weiterbildung sowie die Praxis von Bedeutung sind.

The terms around digital design, construction, and real estate management are used and interpreted differently. The terms and definitions here have been researched and are used for mutual understanding. The glossary contains essential terms and definitions for education and practice intending to develop skills to act.



# The Swiss Way of VDC

