

RAMBOLL GROUP IN BRIEF

- OBEROENDE INGENJÖR- OCH DESIGNKONSULT
- >12,500 EXPERTER
- GRUNDAT 1945
- 300 KONTOR I 35 LAND
- ÄGT AV RAMBØLL-STIFTELSEN

SERVICEROMRÅDEN:

- BYGGNADER
- TRANSPORT
- HÄLSA OCH MILJÖ
- VATTEN
- ENERGI
- OLJA & GAS
- MANAGEMENT CONSULTING

RAMBOLL ENERGY POWER – SERVICEOMRÅDEN



BOILER, COMBUSTION & FUEL LOGISTIC

- Conversion from fossil to biomass
- Greenfield power plants
- Fuel preparation and combustion
- High efficiency (steam parameters)
- Fuel supply, storage and handling facilities

RAMBOLL



TURBINE & PROCESS

- Steam and gas turbine
- Process modelling
- Heater train
- Pump systems
- Vibration
- Noise calculation

RAMBOLL



POWER PIPING

- Piping
- Pipe and component
- Balance of plant
- ATEX
- Machinery

RAMBOLL



EMISSION CONTROL

- Process calculations
- Process design
- Concept design and optimisation of flue gas cleaning systems

RAMBOLL



CIVIL, SITE & QHSE

- Planning & construction of buildings, foundation, cooling water
- Site & Safety Management
- ISO 9001, ISO 14001, customer compliance

RAMBOLL



ELECTRICAL POWER SYSTEMS

- Transformer
- Generator
- ABA systems
- Grid connection
- Power distribution
- Cabling

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INSTRUMENTATION & CONTROL

- Large control systems
- ATEX and Functional Safety
- Control Strategies
- Instrumentation
- PLC
- Programming

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RAMBOLL ENERGY & POWER

BIOKONVERTERING OCH BRÄNSLELOGISTIK – AVEDØREVERKET KÖPENHAMN

OLOF REDIN



AVV1

600 MW KOL,
KONVERTERAS
TILL PELLETS 2016



AVV2

800 MW PELLETS,
HALM OCH GAS

1,1-1,8 MILJONER TON

AVV1 BI OKONVERTERING TILL TRÄPELLETS



DAMM

- KAPACITETSBEGRÄNSANDE
- FÖRSÄMRAD ARBETSMILJÖ
- ATEX

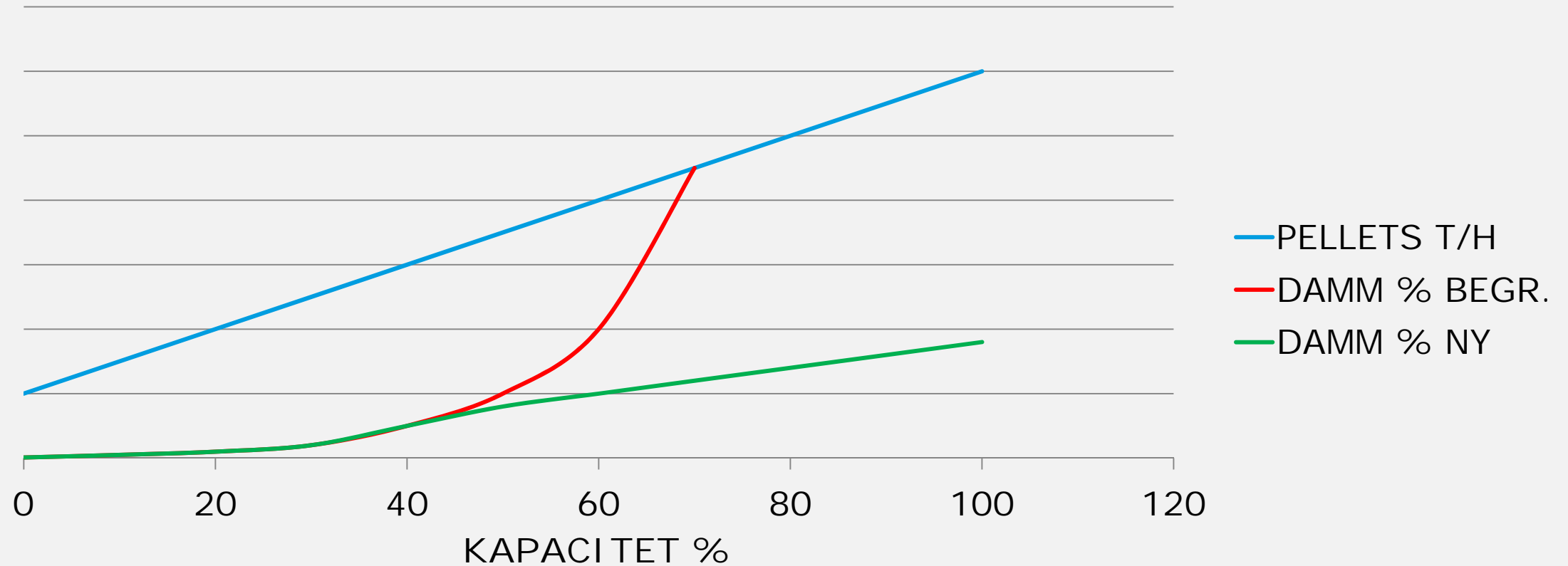
SPILL

- FÖRSÄMRAD ARBETSMILJÖ
- ONÖDIGA RENGÖRINGSKOSTNADER

KAPACITET

- DRIFTSPROBLEM

DAMM SOM KAPACITETSBEGRÄNSNING

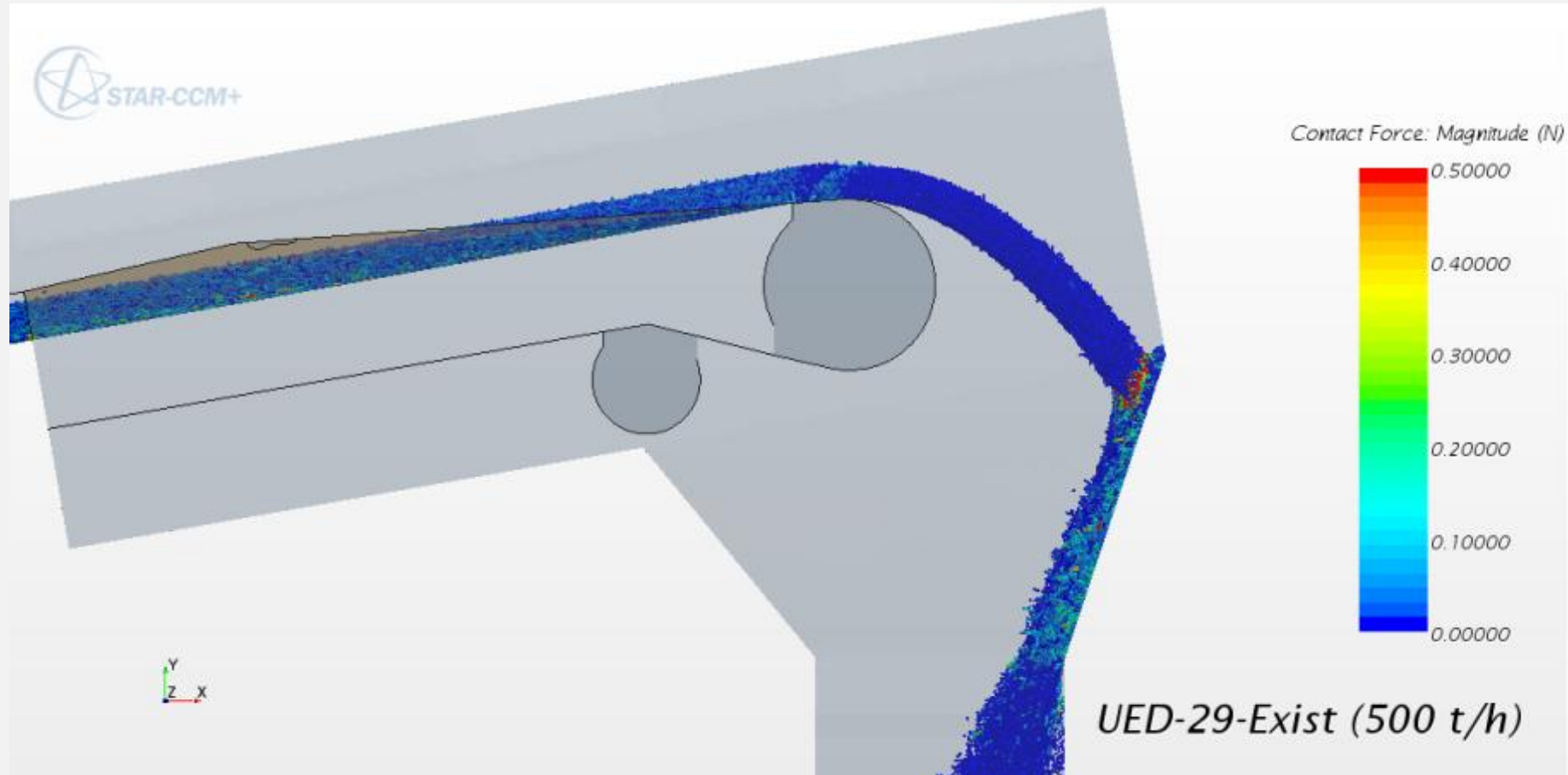


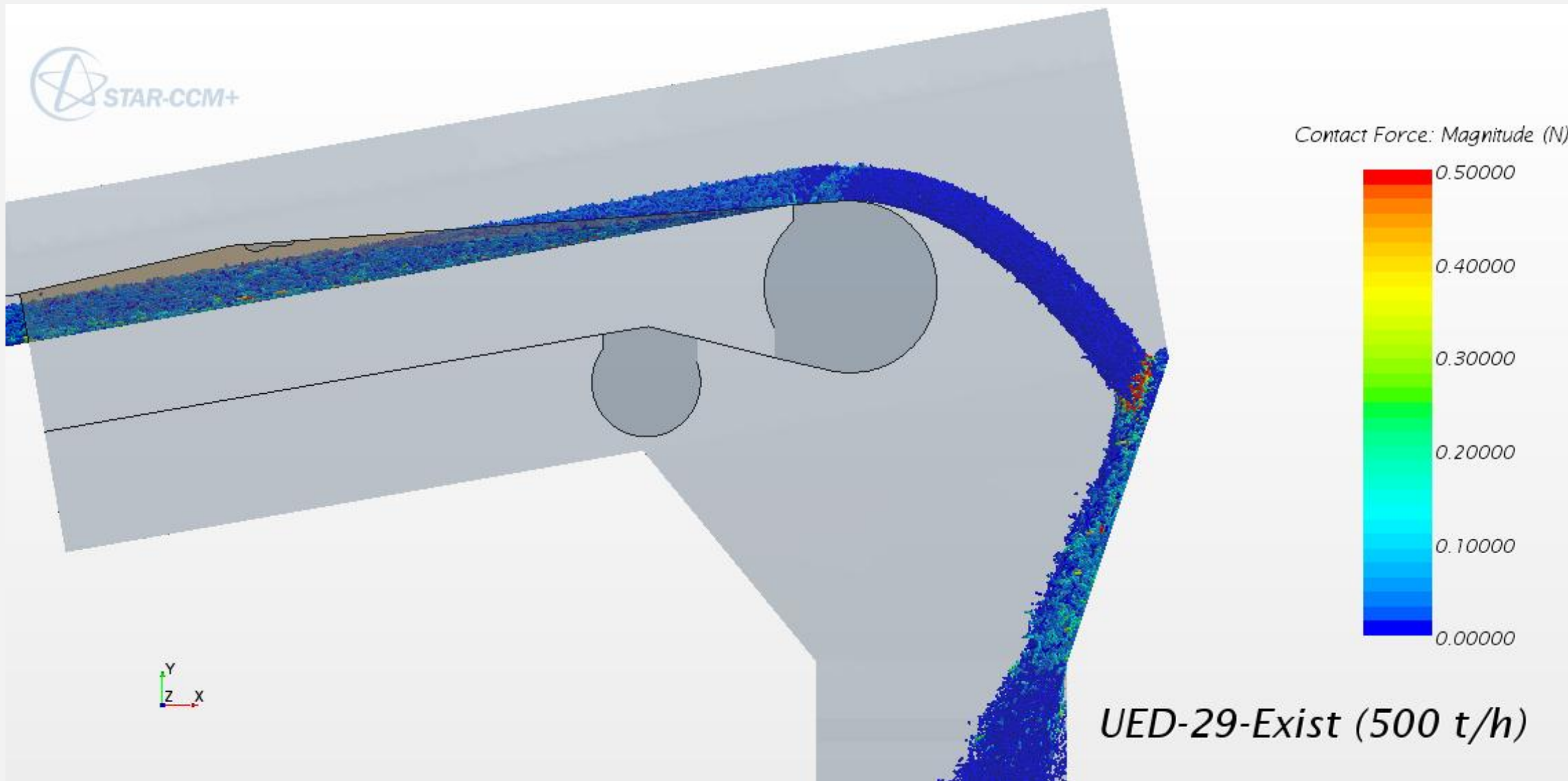
VAR UPPSTÅR DAMM- OCH KAPACITETSPROBLEM ?

- 3000 M³/h
- 3 m/s
- ÖPPET 10 METER EFTER LASTNING

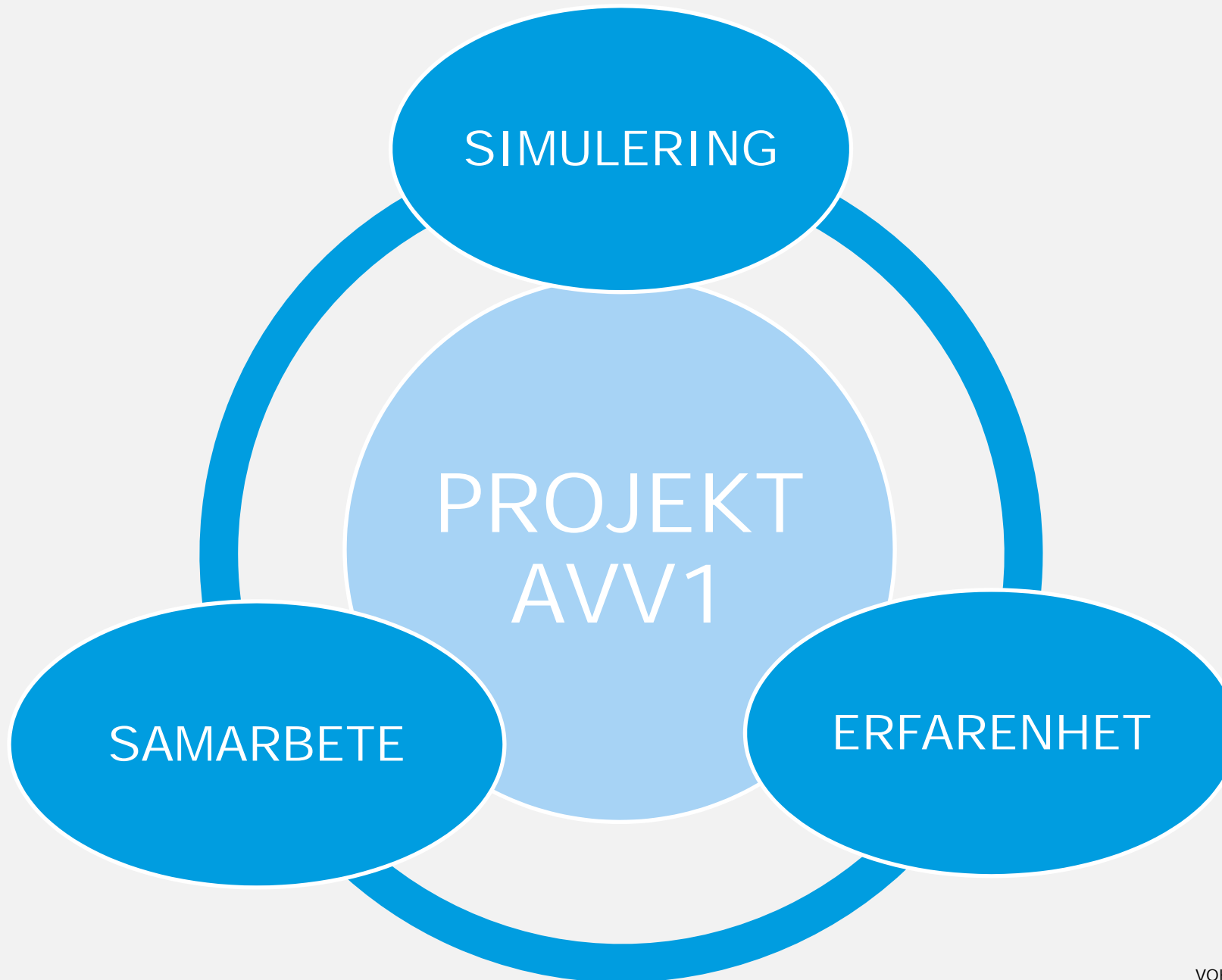


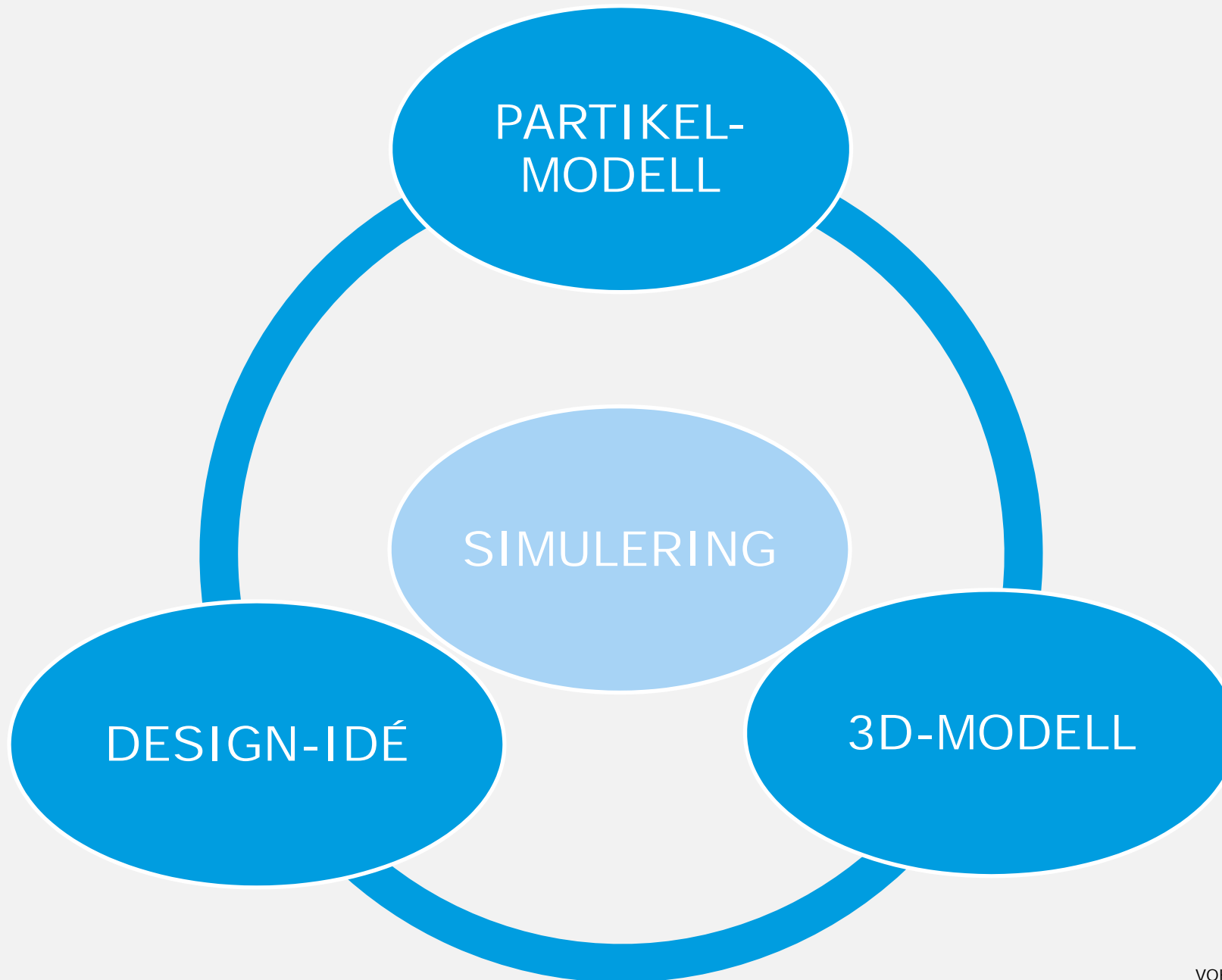
STUP MELLAN TVÅ TRANSPORTÖRER ÄR UNIVERSELLETT DESIGNADE



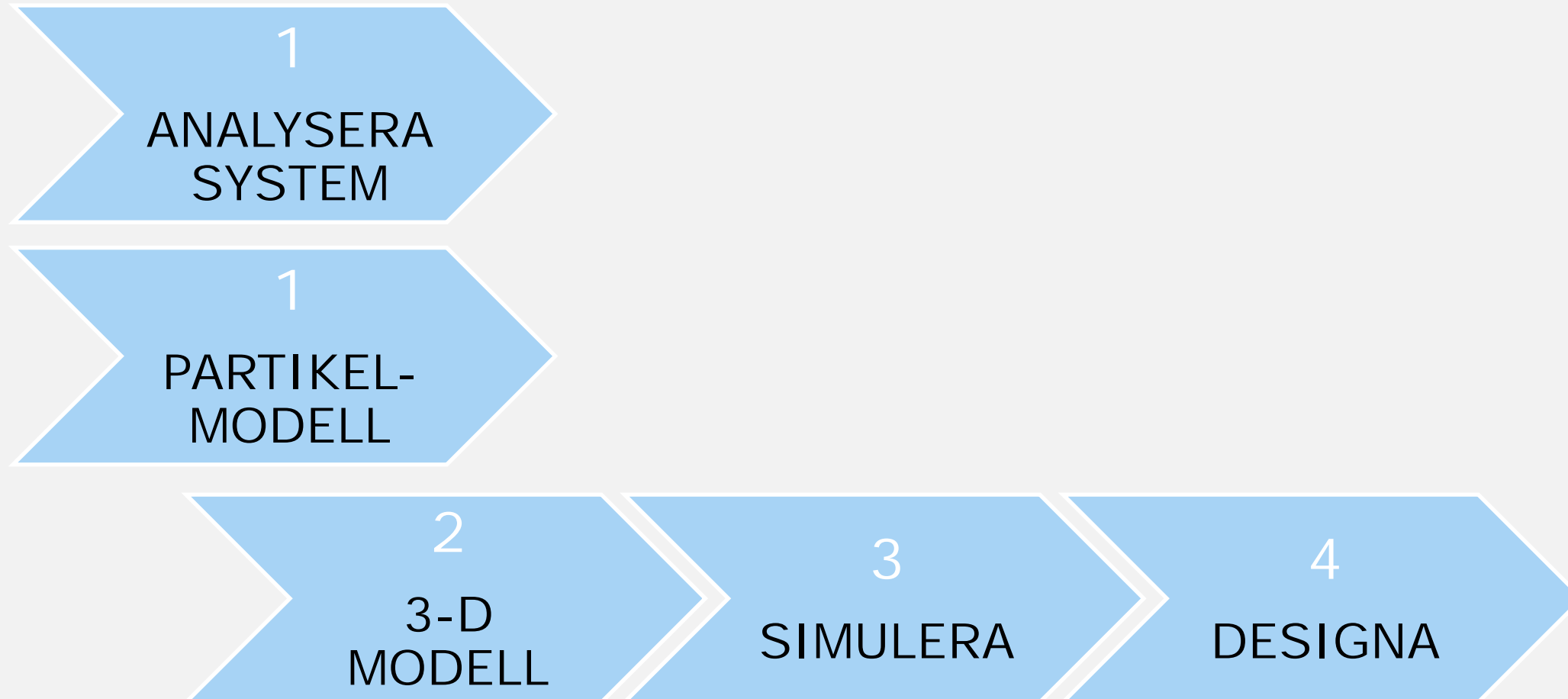


UED-29-Exist (500 t/h)

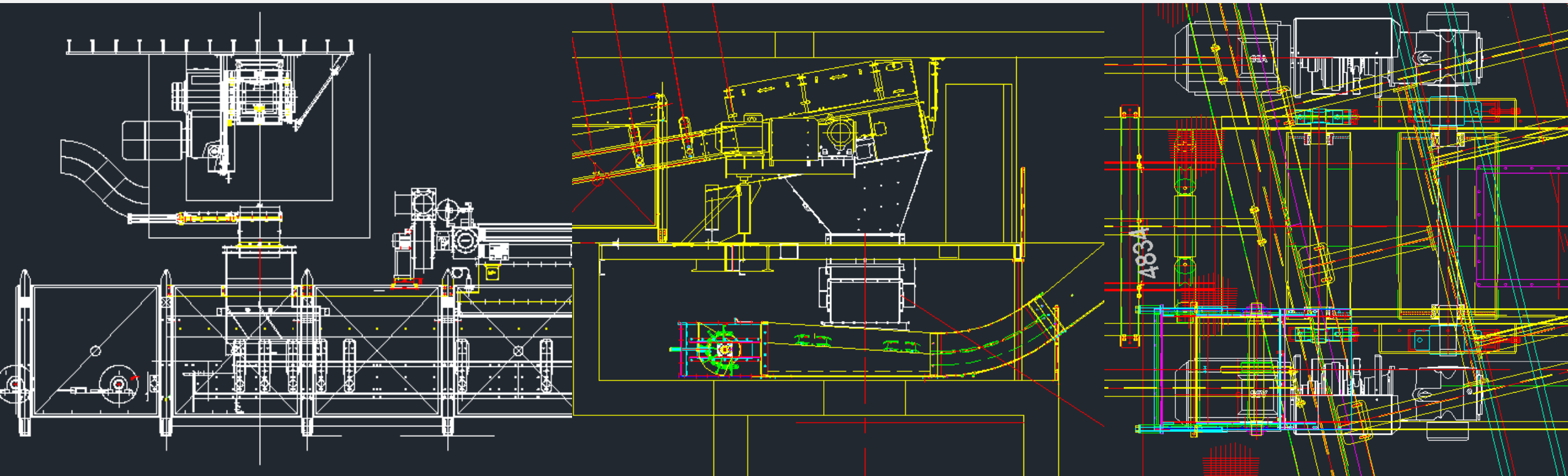




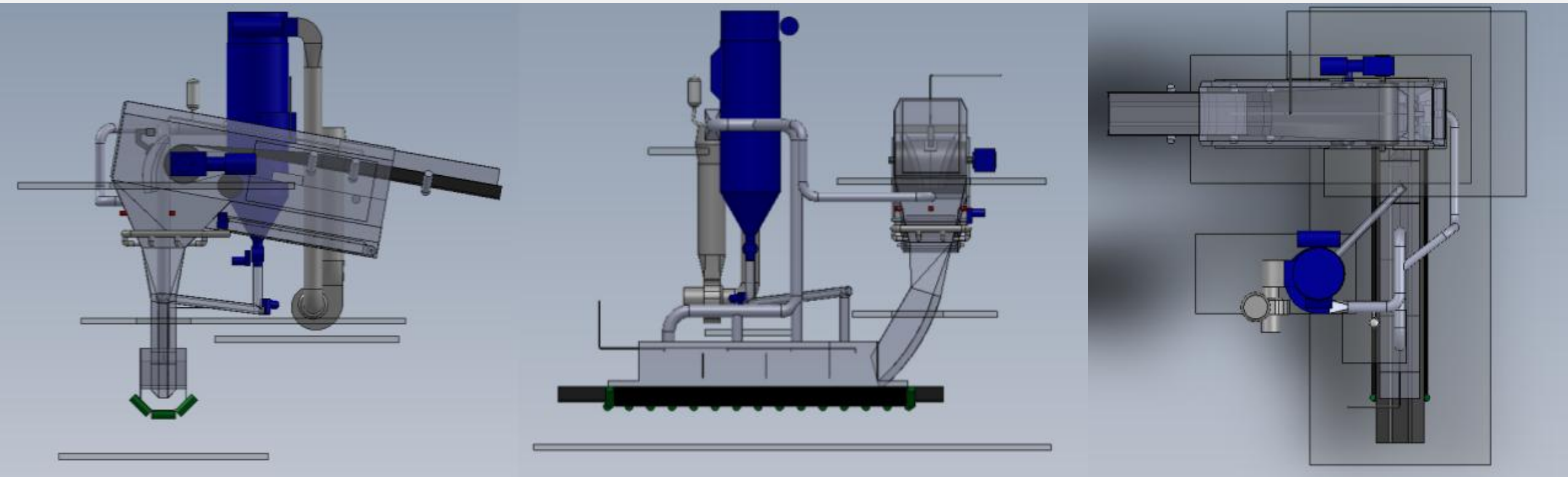
PROJEKT: AVV1 – CONVEYOR OPTIMIZATION



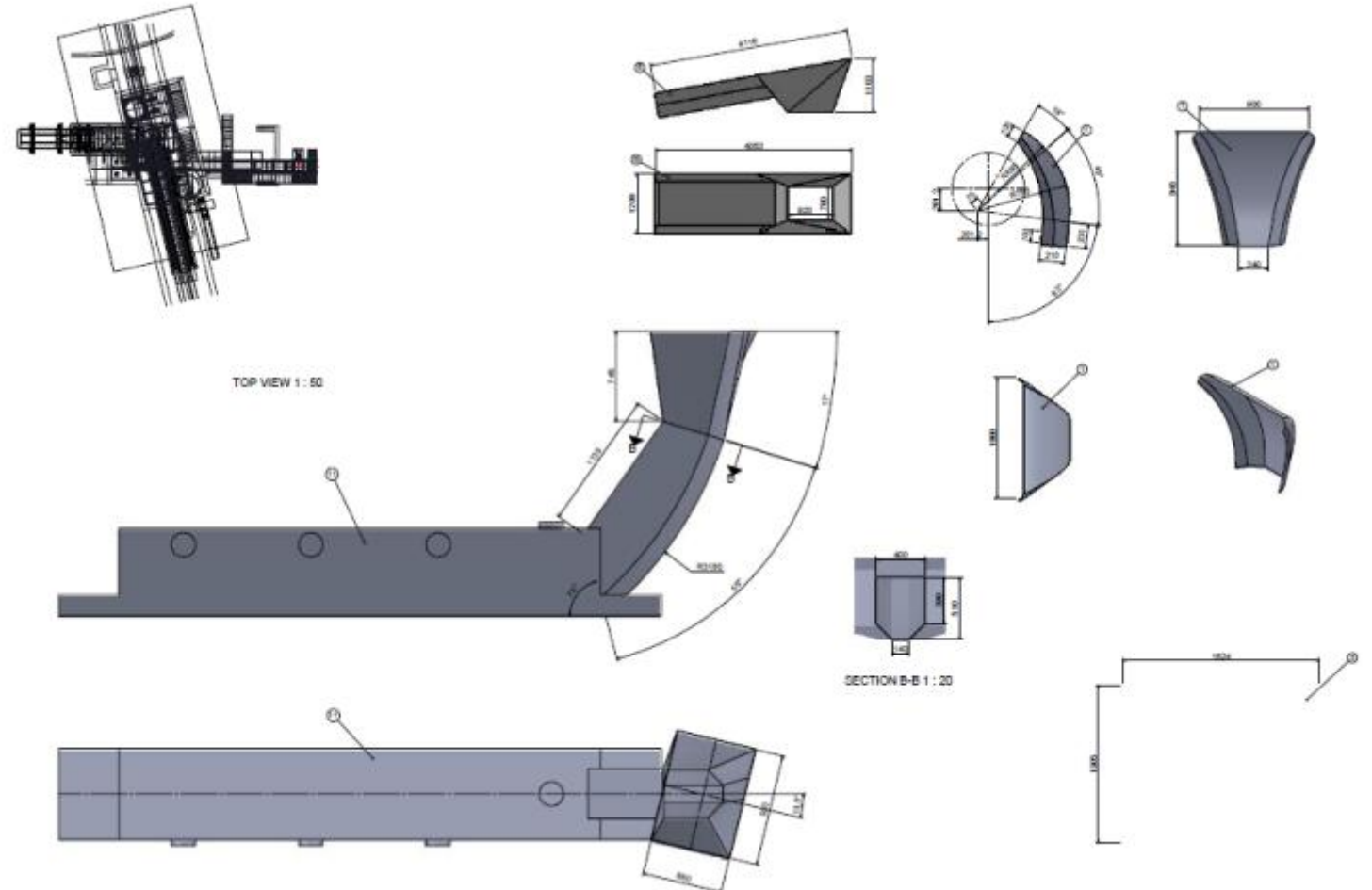
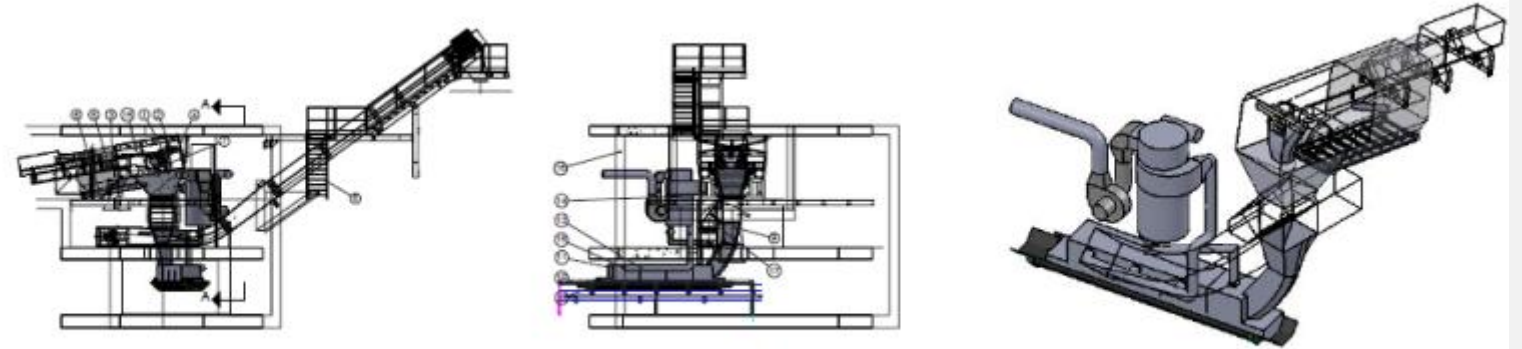
3D-MODELL



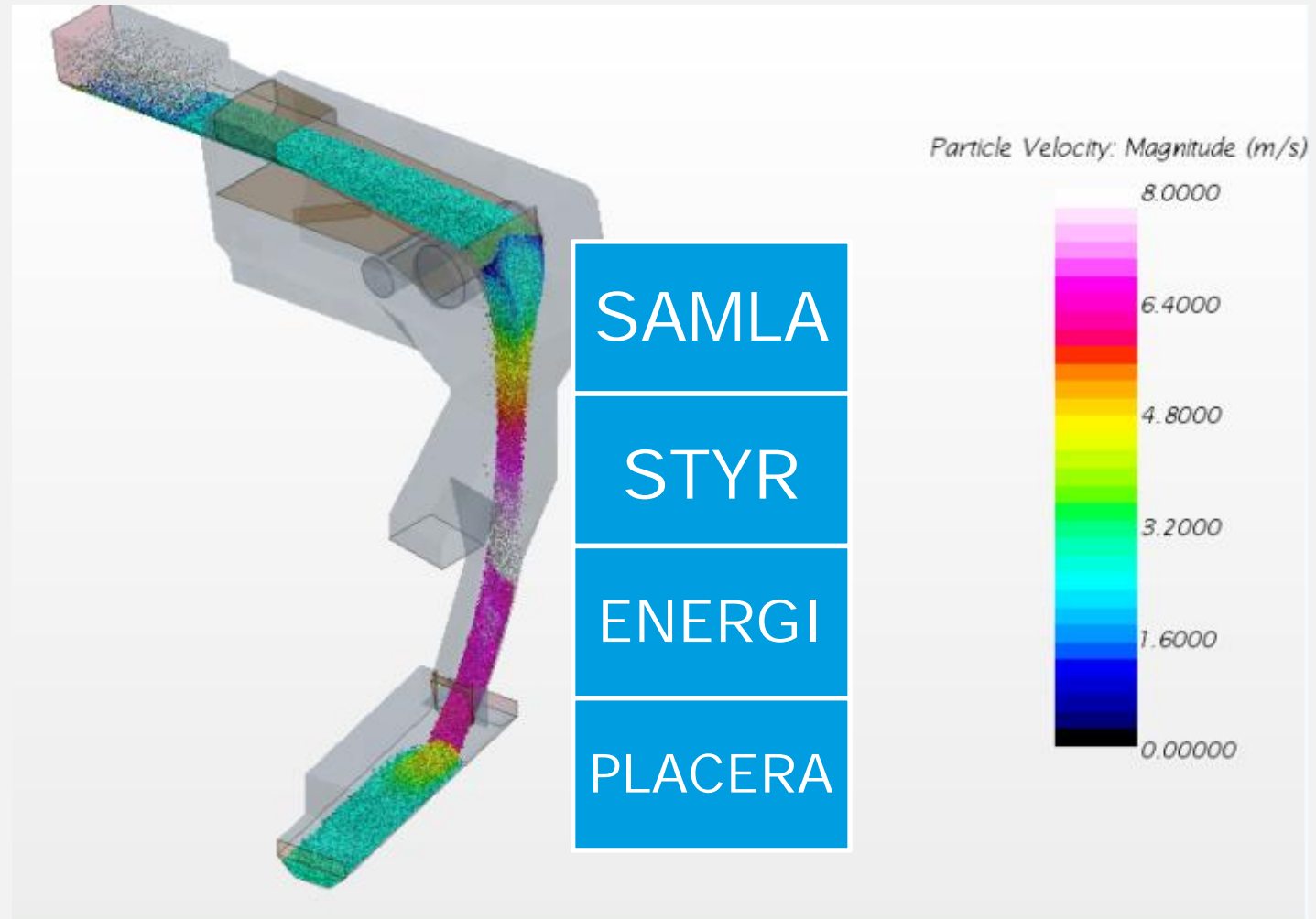
3D-MODELL



DESIGN



UTFORMNING AV STUP TILL PELLETS - DESIGNFÖRUTSÄTTNINGAR



FÖRDELAR



DESIGN TIDIGT
|
PROJEKTERING



VISUELLT
VERKTYG



FÄRRE
GISSNINGAR

DESIGNFAS

NÄR KAN SIMULERINGAR ANVÄNDAS ?



BIO-
KONVERTERING



OMBYGNING /
OPTIMERING



NYE ANLÆG TIL
BIO





REDUCERAD
DAMMNIVÅ



MINDRE
SPILL



BÄTTRE
GENNEMLÖP



FIN