

OCTOBER 26, 2023

How to extract the full potential of AVEVA™ E3D Design and AVEVA™ Point Cloud Manager

Integration in multi-discipline Brownfield Projects

Thomaz Costa – COO, AP Consultoria e Projetos



INTRODUCTION



Brazilian engineering design company



Multidisciplinary

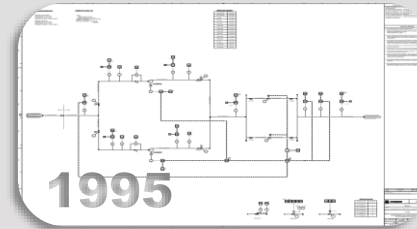
- Process
- Mechanical
- Piping
- Electric
- Instrumentation
- Automation
- Civil
- Telecommunications



30 years of experience



Award for innovation in 2021 and 2023



1995

**DIGITAL PROJECTS
IN 2D**



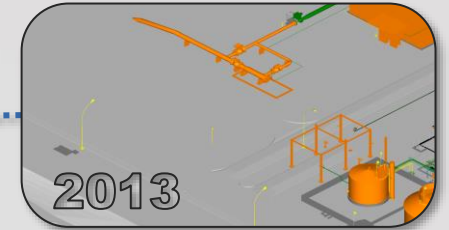
2019

**LASER
SCANNING AND
AVEVA E3D**

AP CONSULTORIA
E PROJETOS

1993

**COMPANY
FOUNDATION**



2013

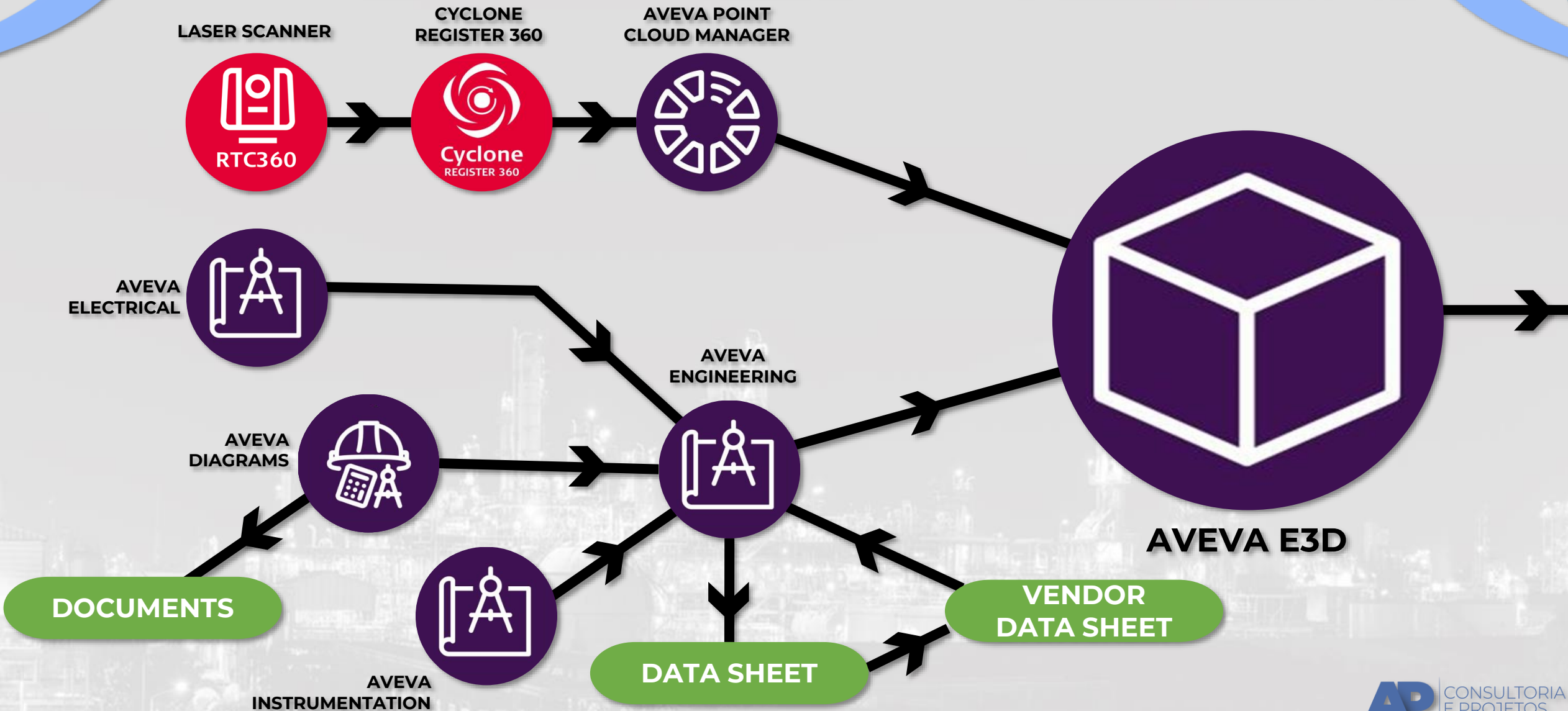
**PROJECTS IN
PDMS**

AVEVA Connect

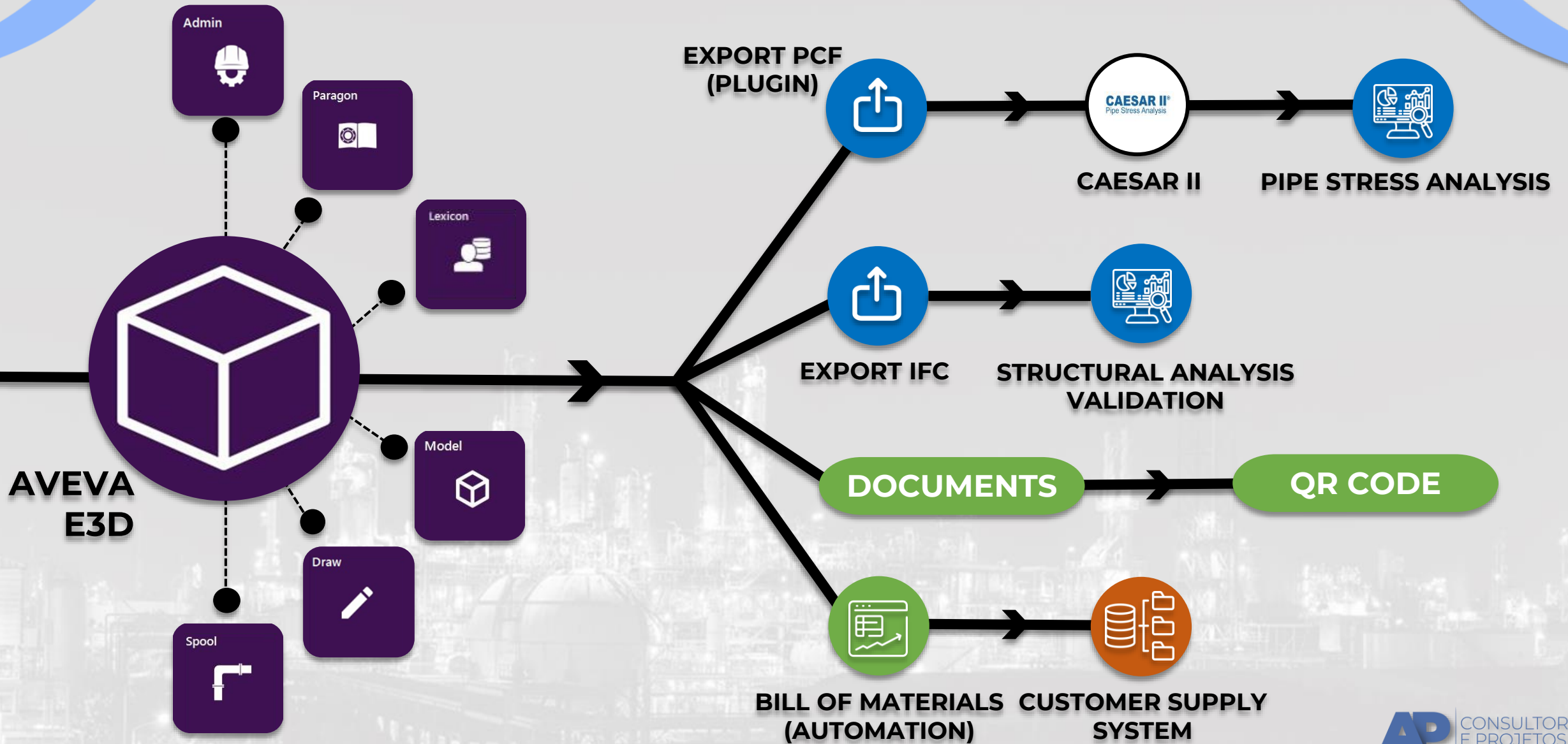
2023

FUTURE

WORKFLOW



WORKFLOW



CASE STUDY

3D PROJECT MADE IN
E3D WITH POINT CLOUD

2D PROJECT WITH MANUAL
FIELD SURVEY **(ONE DISCIPLINE)**

FIELD SURVEY TIME	80H	224H (FOR PERSON)
TEAM	1 PERSON	2 PEOPLE
TOTAL FIELD SURVEY TIME	80 H	448 H
POINT CLOUD PROCESSING AND CONVERSION	120 H	-
2 PROJECTS 30 ISOMETRICS AND 1 LIST OF BILL MATERIALS	1200 H	2300 H
TOTAL	1400 H	2748 H

BENEFITS

3D PROJECT MADE IN E3D WITH POINT CLOUD

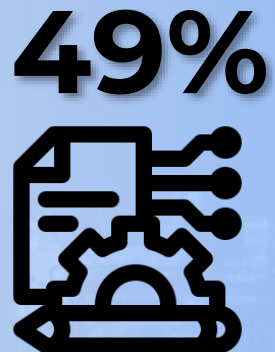
90%
TO
50%



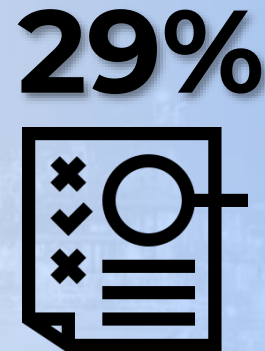
REDUCTION OF
FIELD TEAM



55% REDUCTION IN FIELD
SURVEY TIME AND FOR
MULTIDISCIPLINARY



49%
REDUCTION TIME
OF PROJECT



29%
LESS PROJECT
REWORK

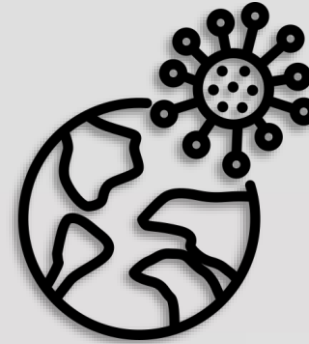
CASE EXAMPLE



**PROJECT
TIME**



**930
DOCUMENTS**



**PANDEMIC
PERIOD**

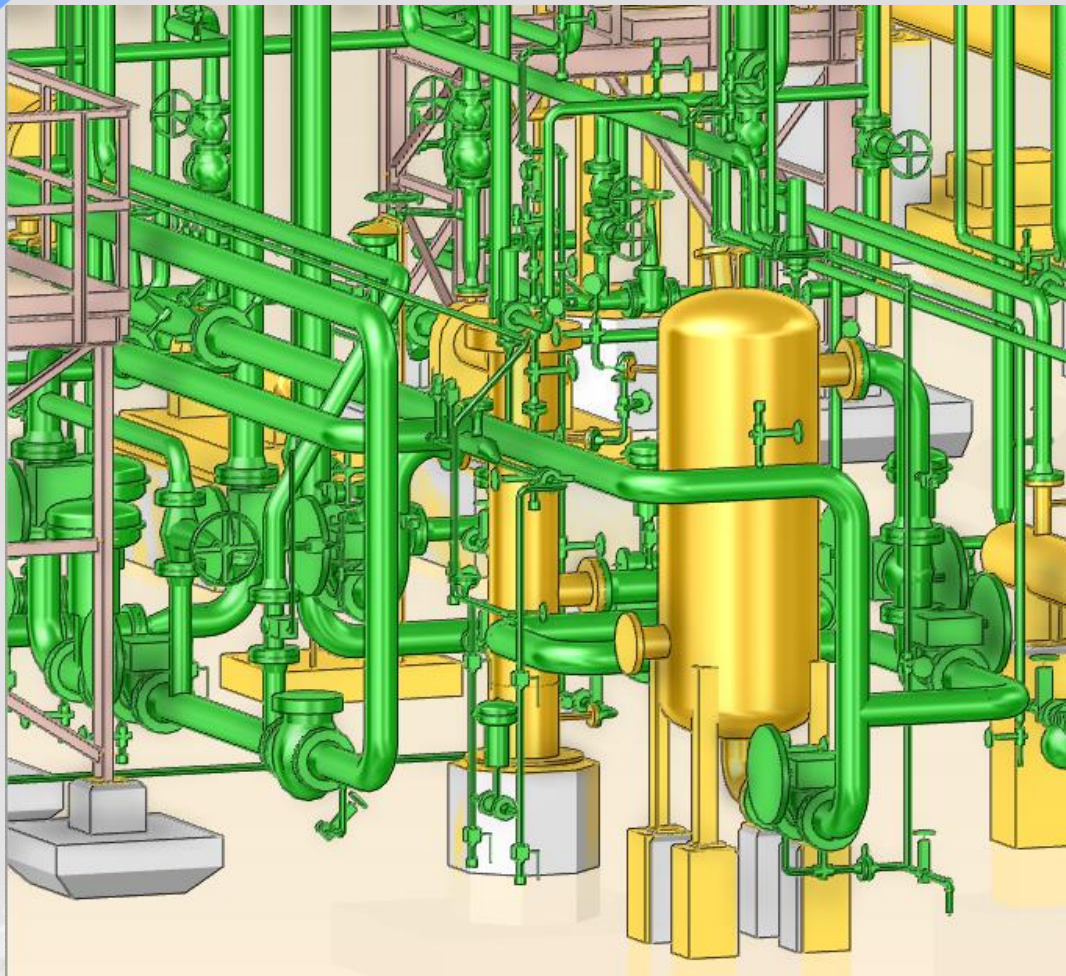


**30.000M²
SCANNED**



**PROJECT
MULTIDISCIPLINARY**

CASE EXAMPLE

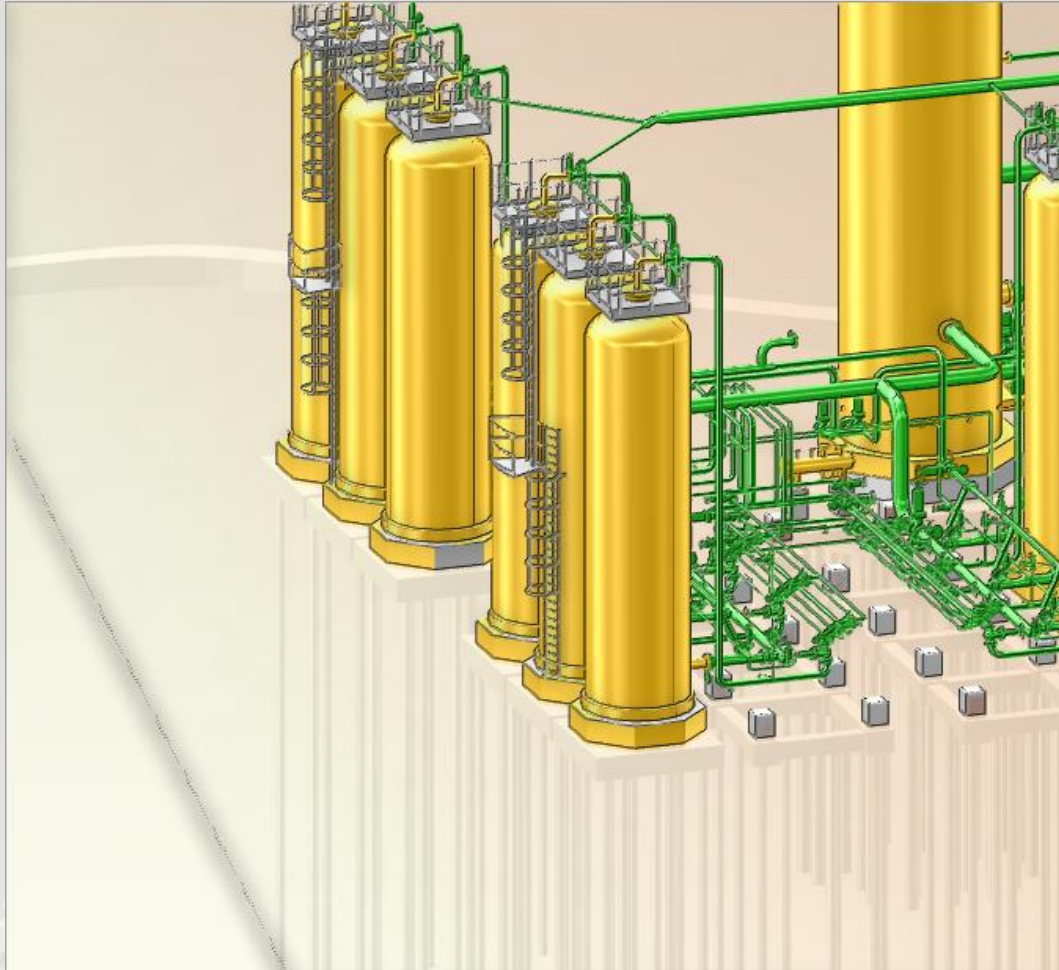


3D MODEL – E3D



POINT CLOUD IN E3D

CASE EXAMPLE

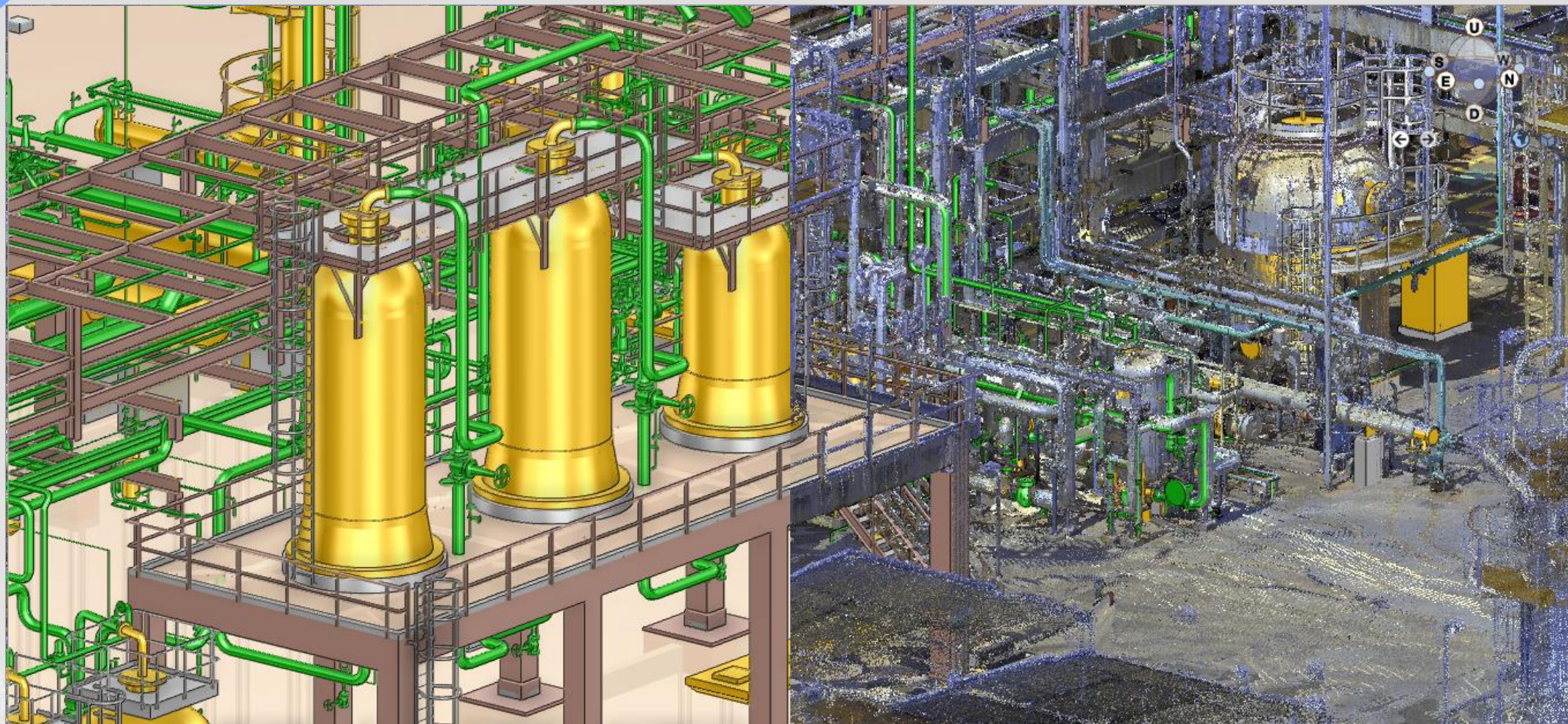


3D MODEL - E3D



POINT CLOUD IN E3D

CASE EXAMPLE



3D MODEL - E3D

POINT CLOUD IN E3D

VIDEO

AP | CONSULTORIA
E PROJETOS

**CASE EXAMPLE - POINT CLOUD AND
3D MODEL IN AVEVA E3D**

NEXT STEPS



DRONE WITH LASER SCANNER

- Scan hard-to-reach areas
- Lower team exposure



AVEVA CONNECT

- Infrastructure reduction
 - Internal Server
 - Powerful Hardware
 - File Security
 - VPN
- Access control and security
- Lower investment in powerful computers



MODELLING AND AI

Automatic modeling on the point cloud

ABOUT ME

I am a Civil Engineer graduated from UFBA and post-graduated from COPPEAD/UFRJ and University of SAN Diego. I have an article published at the University of Los Andes, about the importance of Lean philosophy in engineering projects and I am co-responsible for the process turnaround of one of the largest construction companies in the country. I am Director of Engineering at AP Consultoria e Projetos and also Director of ABEMI (Brazilian Association of Industrial Engineering), where in 2022 I was responsible for creating the series of round tables ABEMI Talks.

PROFILE

Director of Engineering of AP Consultoria e Projetos
Director of ABEMI (Brazilian Association of Industrial Engineering)

Civil Engineer graduated

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Thank You

For Your Attention



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State your name and company.



Please remember to...

Navigate to this session in the mobile app to complete the survey.



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AVEVA is a world leader in industrial software, providing engineering and operational solutions across multiple industries, including oil and gas, chemical, pharmaceutical, power and utilities, marine, renewables, and food and beverage. Our agnostic and open architecture helps organizations design, build, operate, maintain and optimize the complete lifecycle of complex industrial assets, from production plants and offshore platforms to manufactured consumer goods.

Over 20,000 enterprises in over 100 countries rely on AVEVA to help them deliver life's essentials: safe and reliable energy, food, medicines, infrastructure and more. By connecting people with trusted information and AI-enriched insights, AVEVA enables teams to engineer efficiently and optimize operations, driving growth and sustainability.

Named as one of the world's most innovative companies, AVEVA supports customers with open solutions and the expertise of more than 6,400 employees, 5,000 partners and 5,700 certified developers. The company is headquartered in Cambridge, UK.

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