

DE TOEKOMST VAN CAD EN ENGINEERING

Industry 1.0 - 1780

Mechanisatie met water- en stoomkracht





design solutions

visiativ

Industry 2.0 - 1870

Massa productie, productielijn, elektrische energie

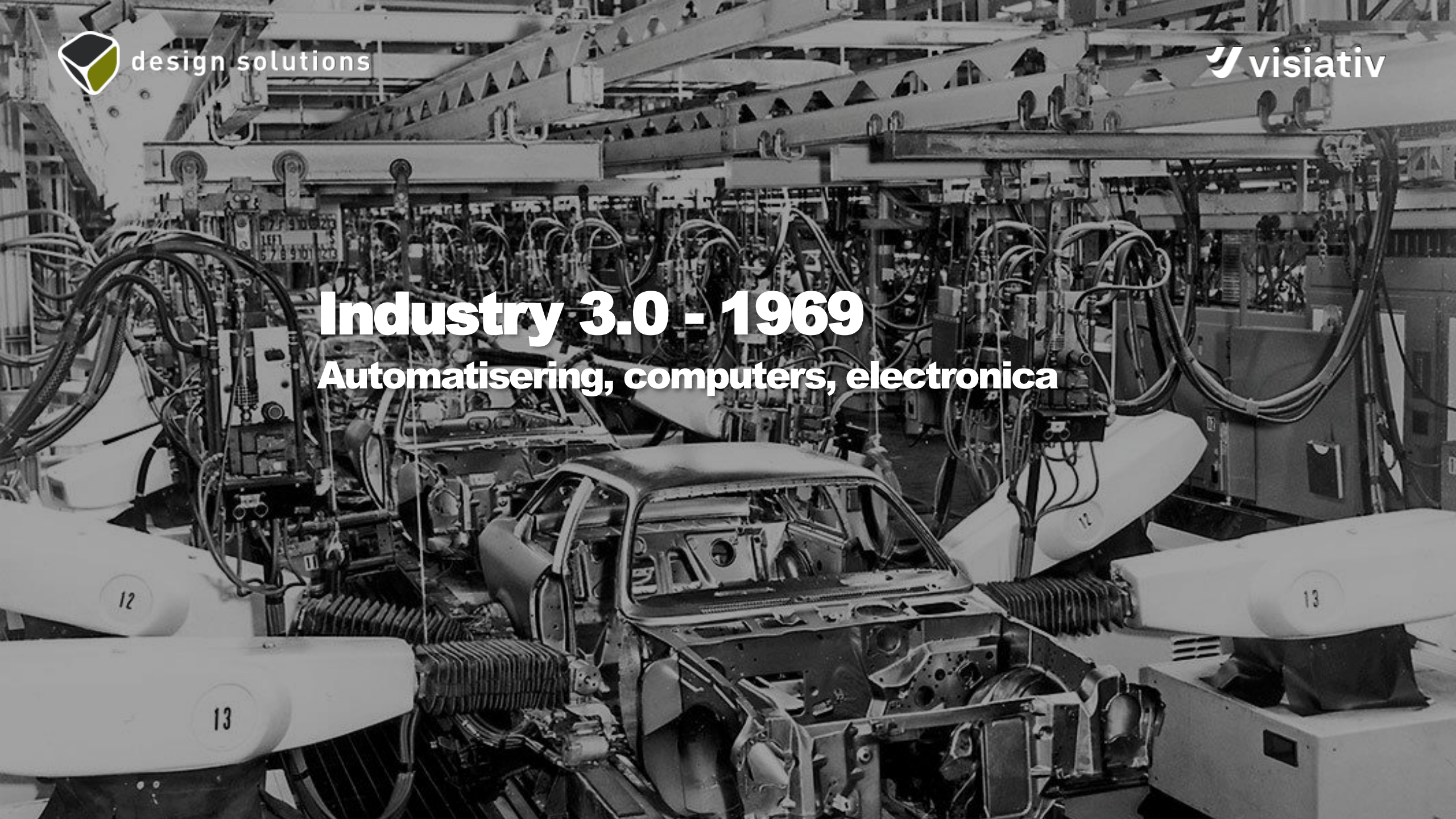


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Industry 3.0 - 1969

Automatisering, computers, electronica



Industry 4.0 - Nu

IoT, kunstmatige intelligentie, IT, Cloud, robotica, Big Data





Automatisering op engineering

1760 – 1970 : Handmatig tekenen

A man with a beard, wearing a light-colored shirt and a dark vest, is seated at a desk in a design studio. He is looking at a computer monitor which displays a technical drawing. His hands are on a keyboard. On the desk, there is a large drawing board with a technical drawing on it, a telephone, and some papers. In the background, there is a bookshelf with books, including one labeled 'AUTOCAD 2', and a vase with yellow flowers. The overall atmosphere is professional and focused on design work.

Automatisering op engineering

1970 – 1995 : 2D CAD tekenen

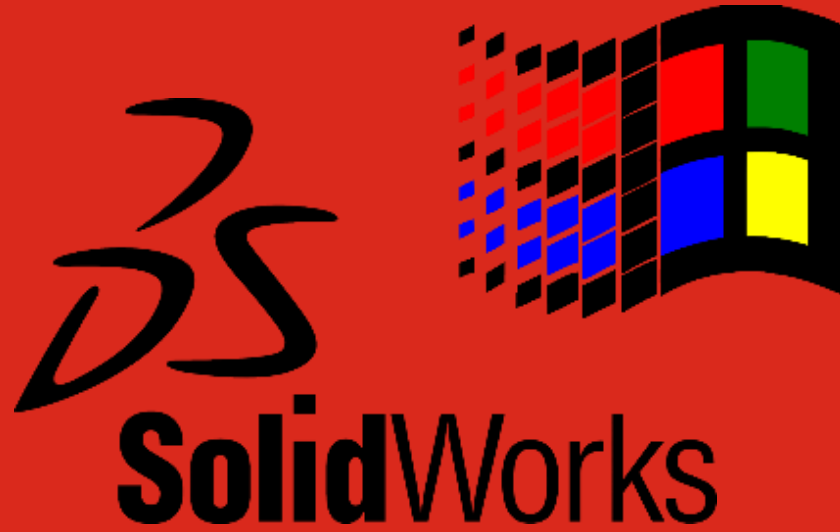
Automatisering op engineering

1995 – Nu : 3D CAD tekenen





SOLIDWORKS geschiedenis



1995

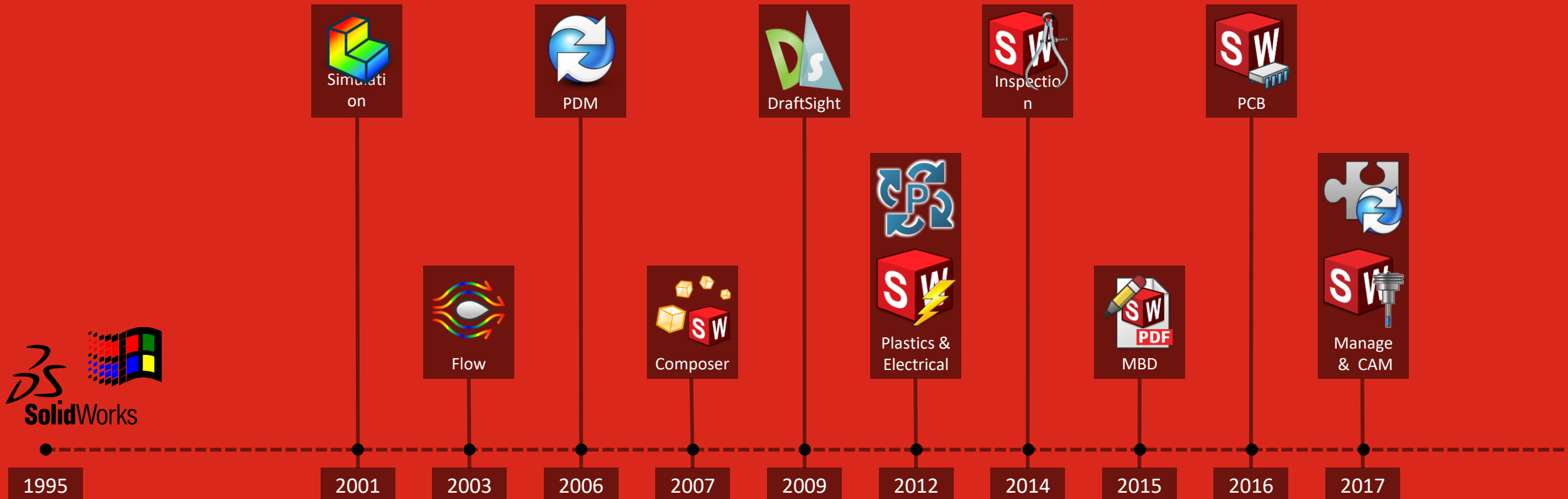


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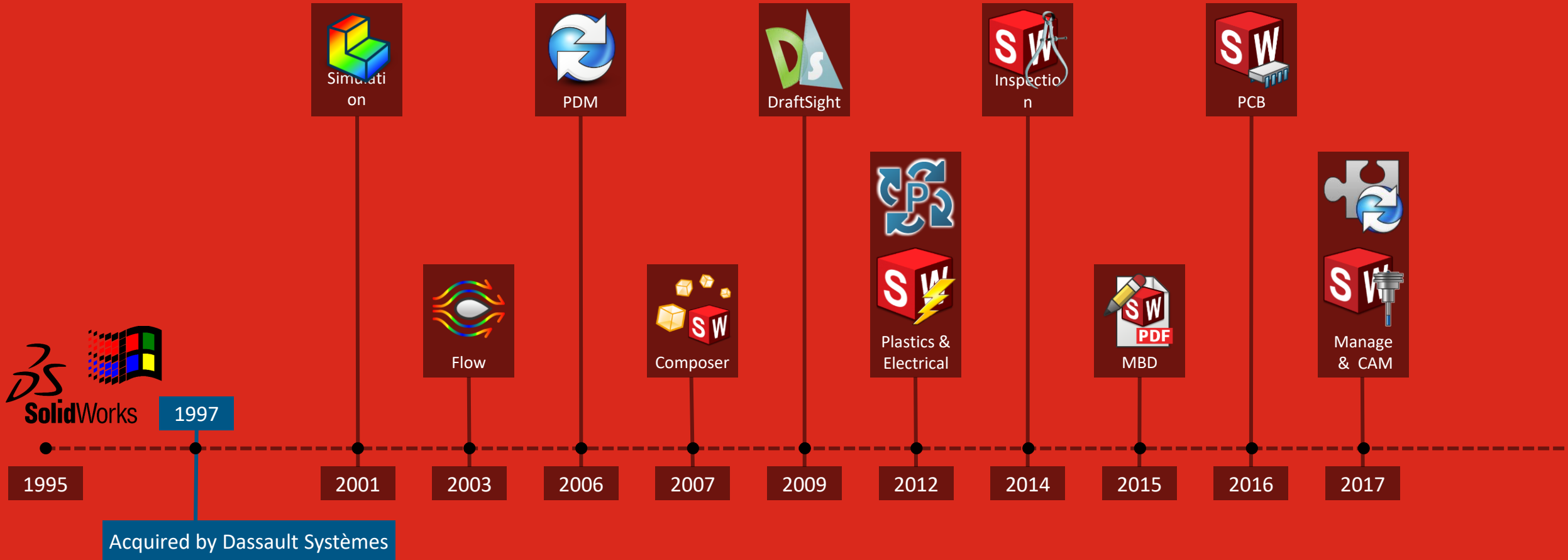


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SOLIDWORKS geschiedenis





TRANSITIE NAAR CLOUD

TRANSITIE NAAR CLOUD



salesforce

 Office 365



Microsoft
Dynamics 365



Van verkoop naar lease/subscription



design solutions

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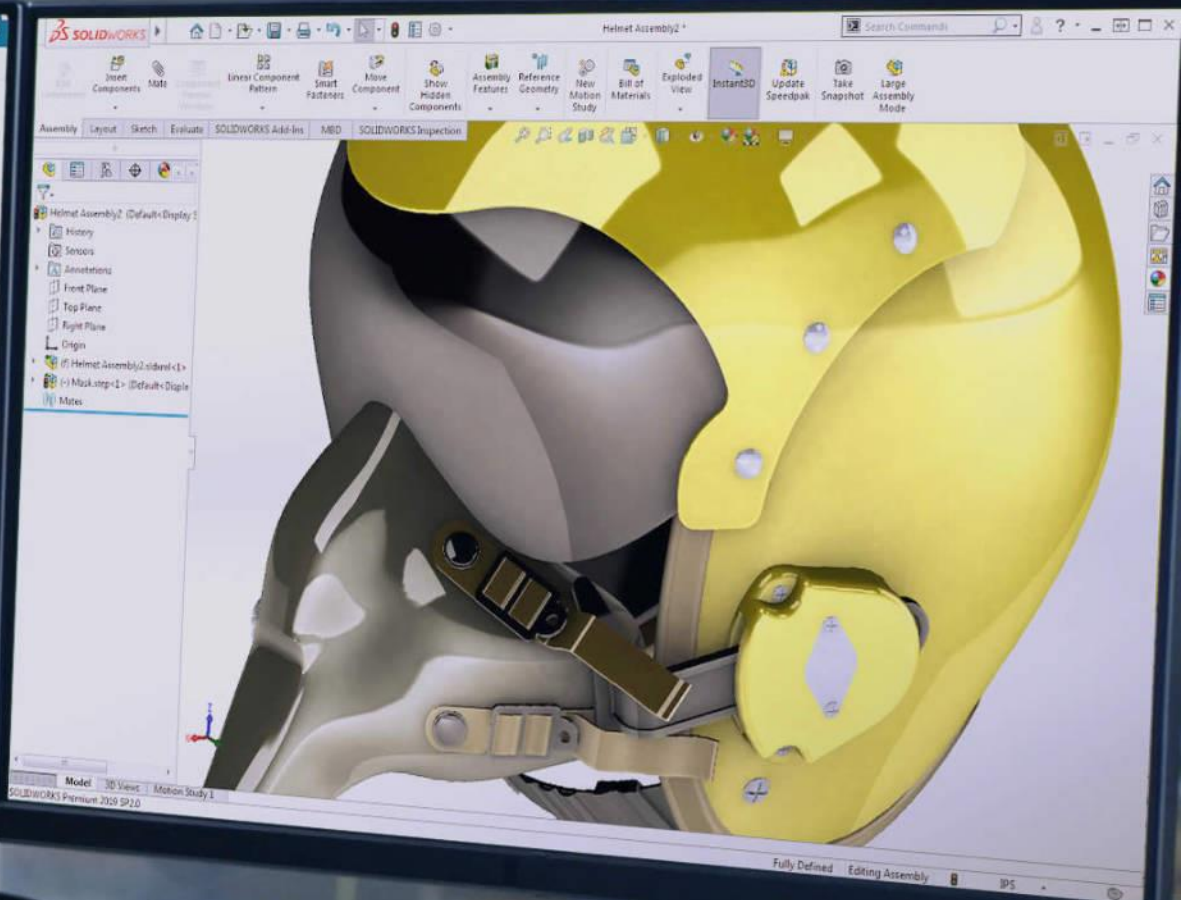
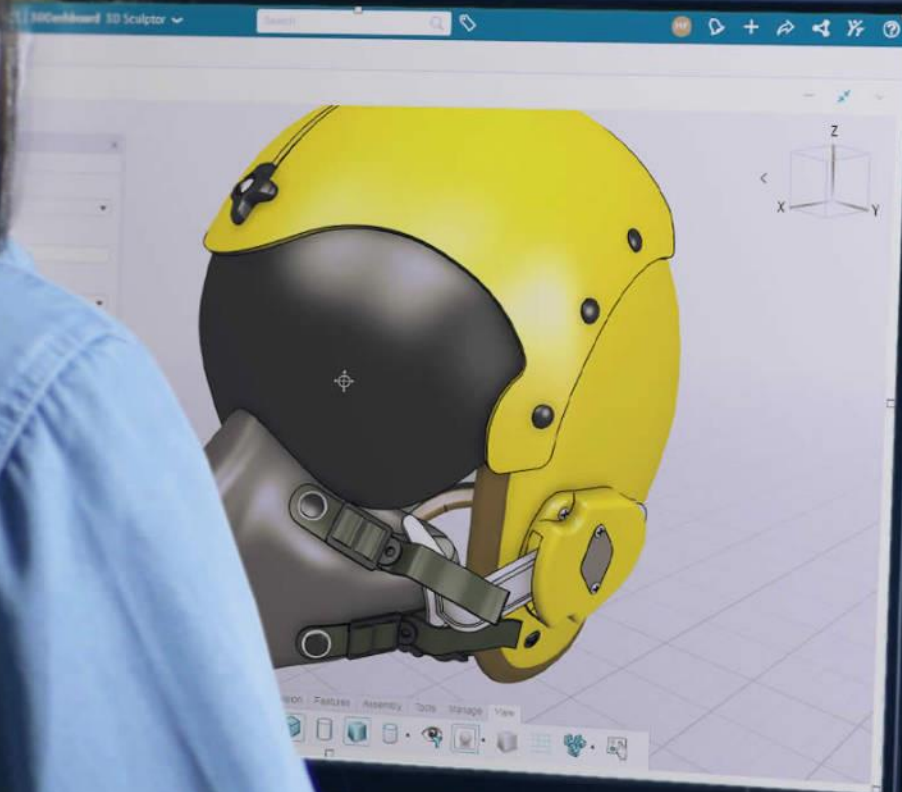


Van verkoop naar lease/subscription

00800-5508800
www.bredenoord.com

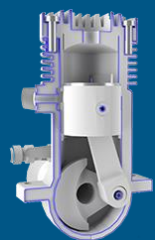
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3DEXPERIENCE platform

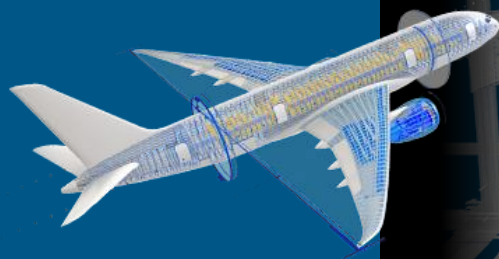




DASSAULT SYSTÈMES geschiedenis



1981
3D Design



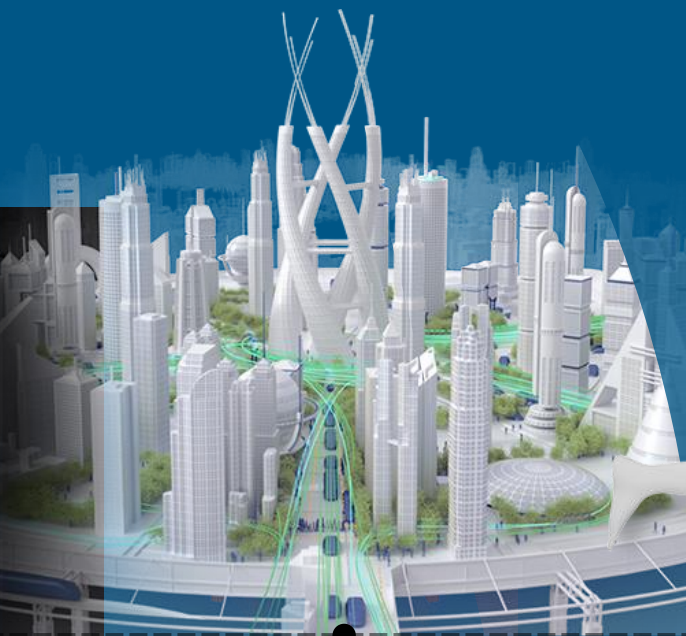
1989
3D DMU
Digital Mock-up



1999
3D PLM
Product Lifecycle Management

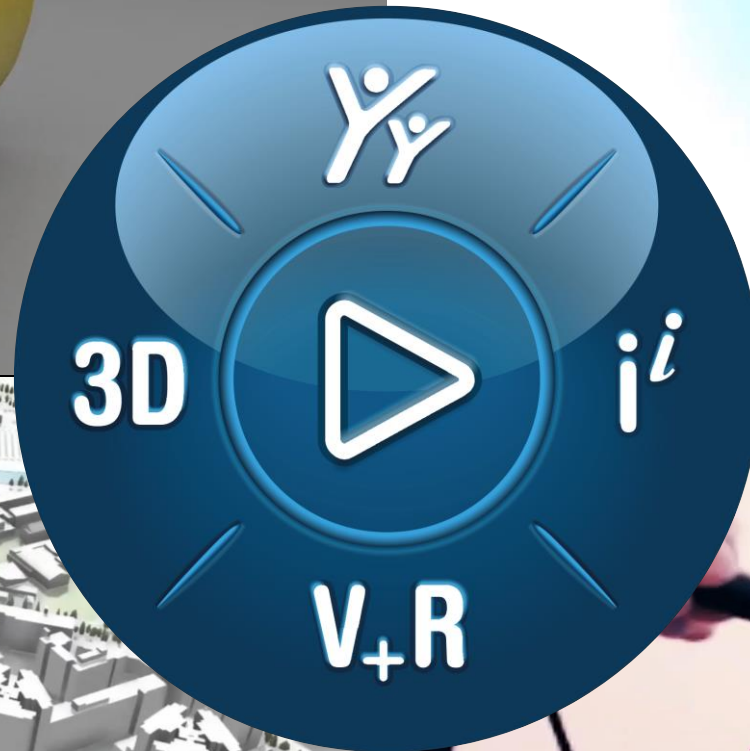


2012
3DEXPERIENCE® platform

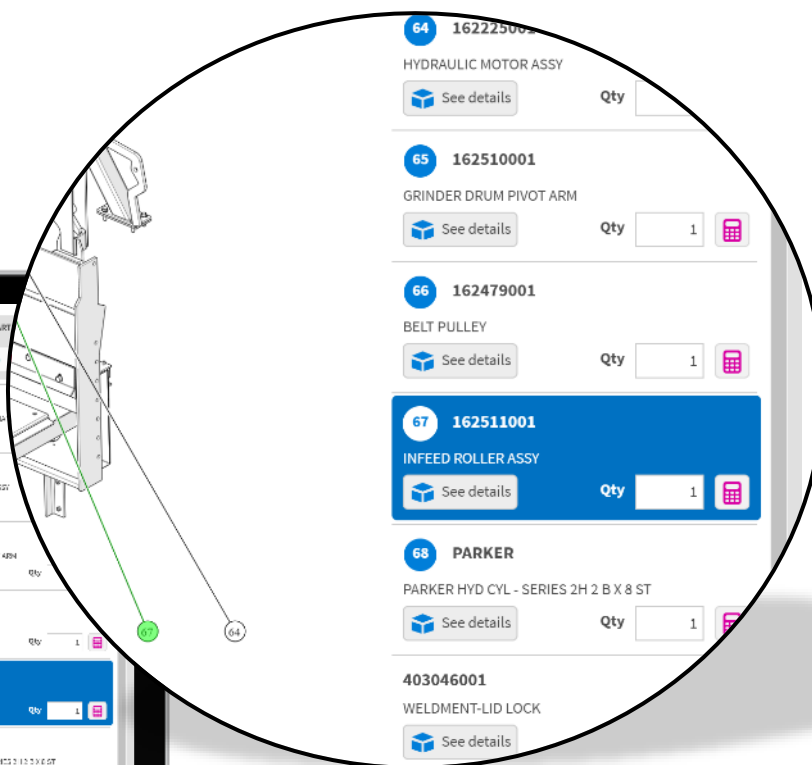
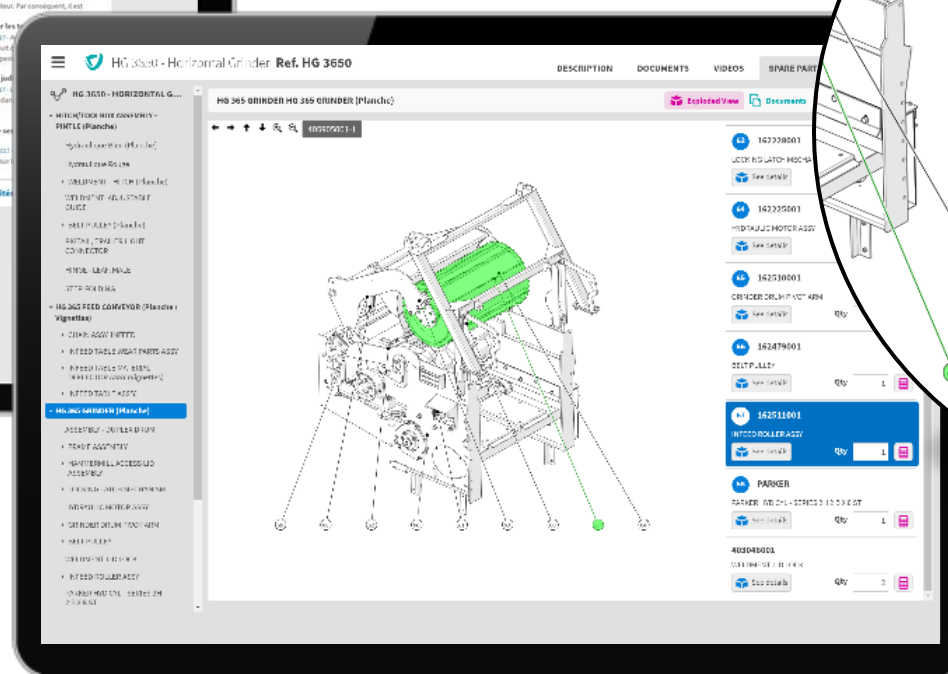
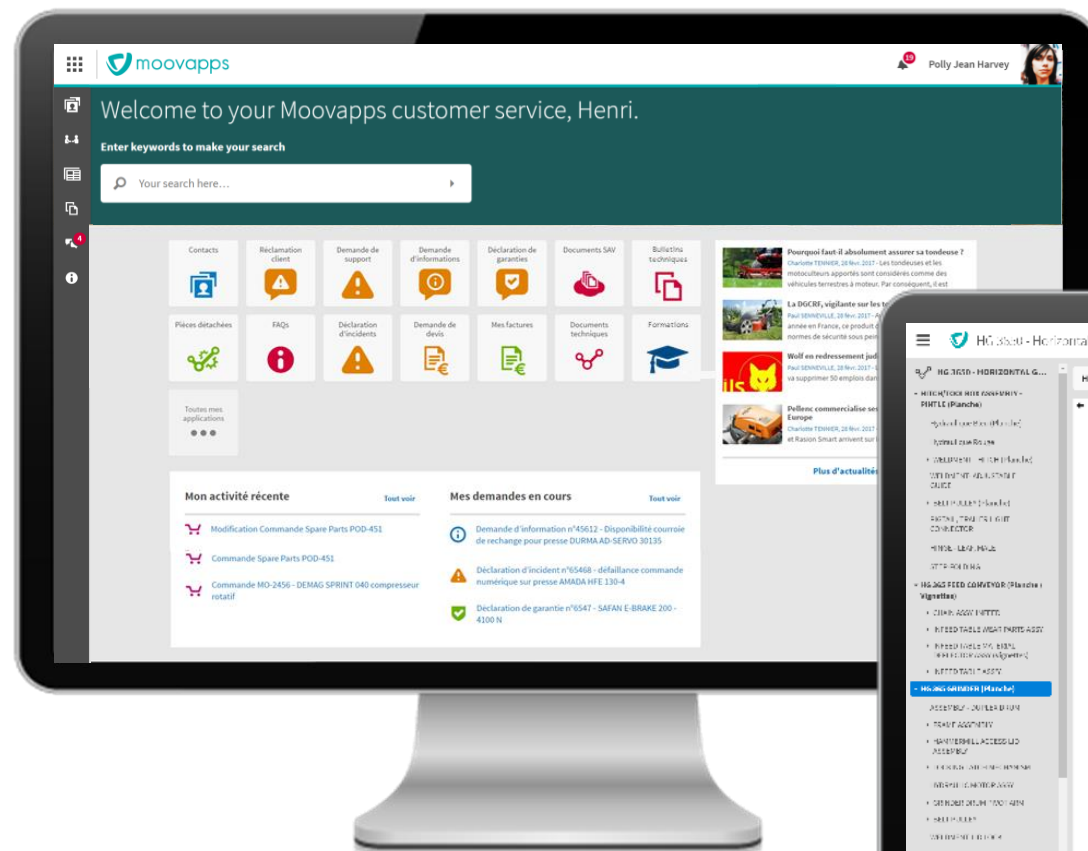


2020
Virtual Twin
Experience of **Humans**





Moovapps Customer Service



SUSTAINABLE ENGINEERING



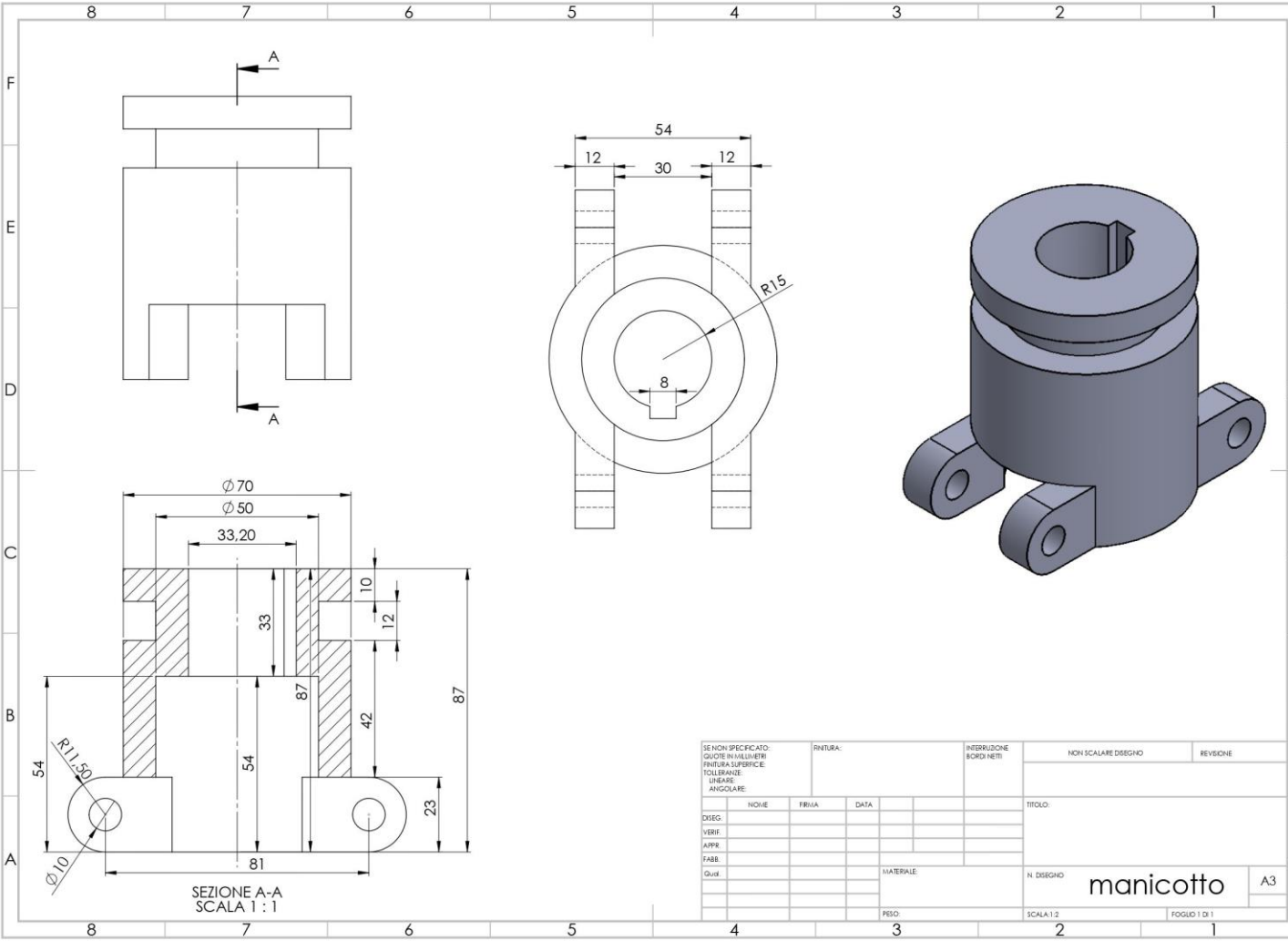


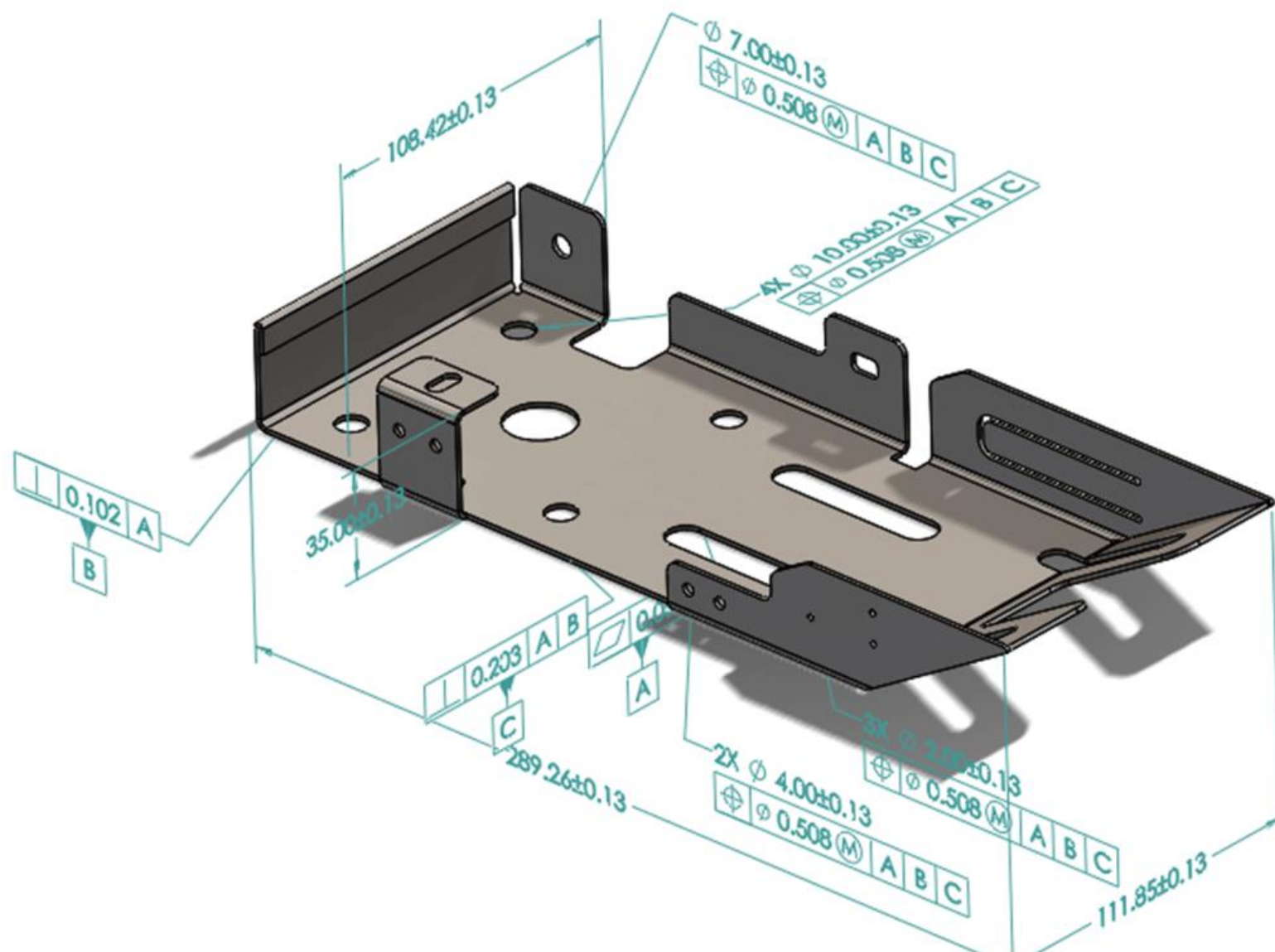
DIGITALISERING EN PROCESAUTOMATISERING

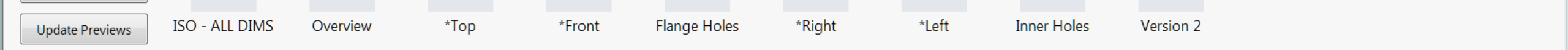
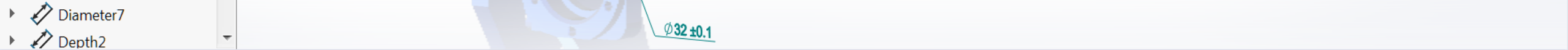
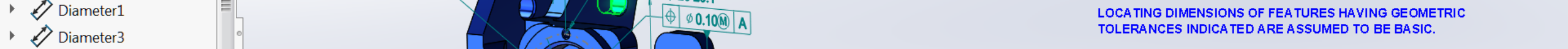
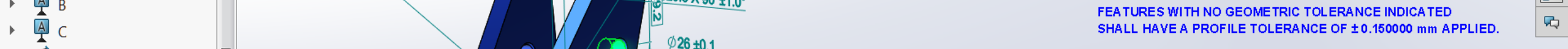
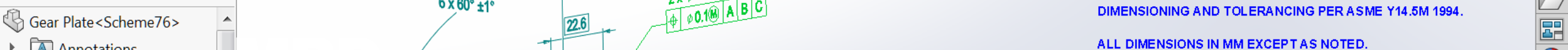
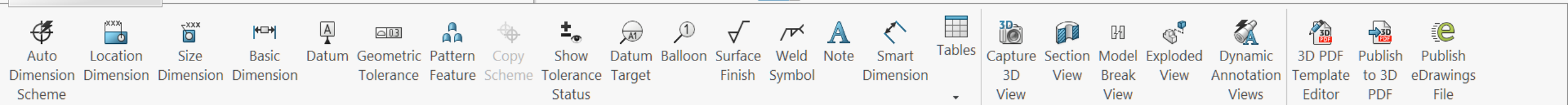
DIGITALISERING EN PROCESAUTOMATISERING

- **Model Based Definition**
- **Product configuratie / CPQ**
- **AI - Kunstmatige intelligentie**
- **Verandering van productiemethoden**
- **AR/VR – Verbinding digitale en echte wereld**
- **Handel door communities**
- **Digital Twins**

[illegible]









Open



1

/ 1

46.9%



Tools

Fill & Sign

Comment

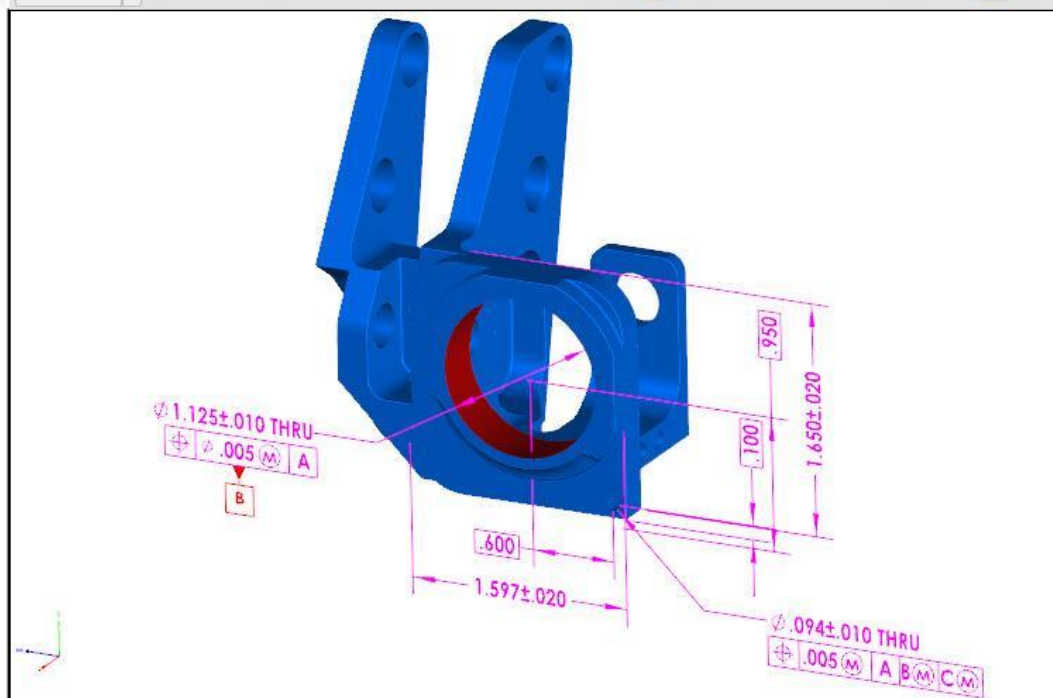


Part Number: ISTE0021
Comments: Sample 3D PDF

Date: 12/12/2014
Revision: 6
Material: 1060 Alloy



Views

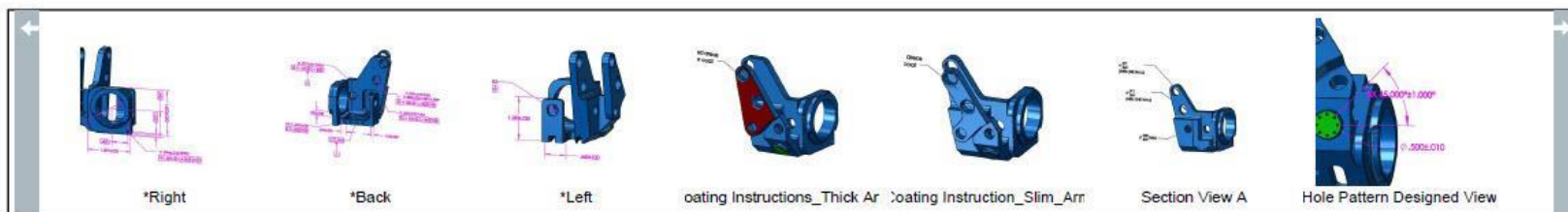


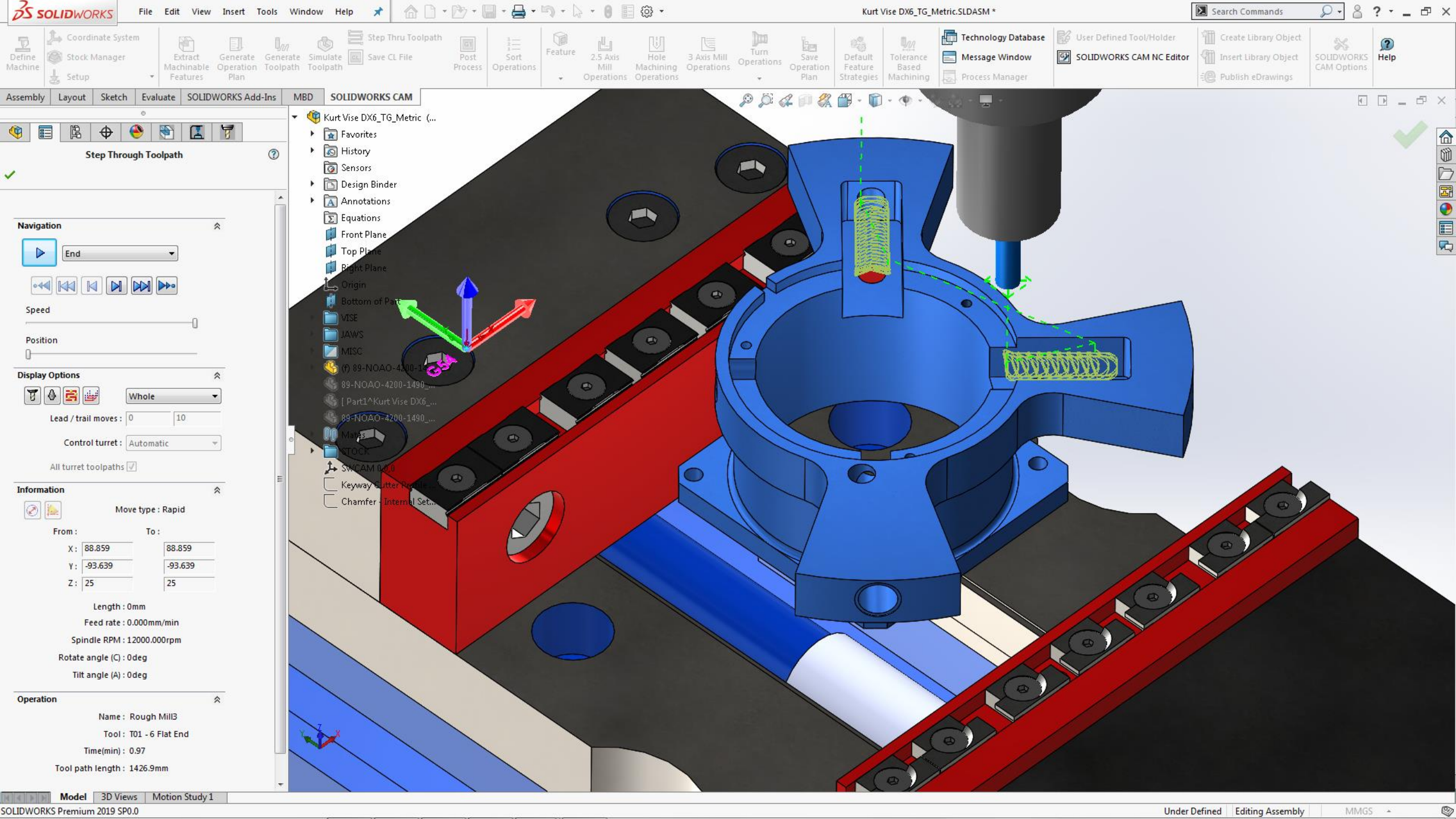
Notes:

Please review this part and share comments here. Comments can be saved to the 3D PDF and sent back to the engineering team.

SOLIDWORKS MBD 3D PDF advantages:

1. Compliant with ISO standard.
 - a. Based on PRC format, established as ISO 14739-1: 2014.
2. Accurate.
 - a. Within 1 micron precision. Accurate for machining.
3. Rich.
 - a. Supports semantic 3D PMI.
 - b. Supports advanced SOLIDWORKS concepts such as configurations, display states, section views, exploded views, display style, and model break views.
 - c. Associated to meta properties such as part numbers and revisions.
4. Easy to use.





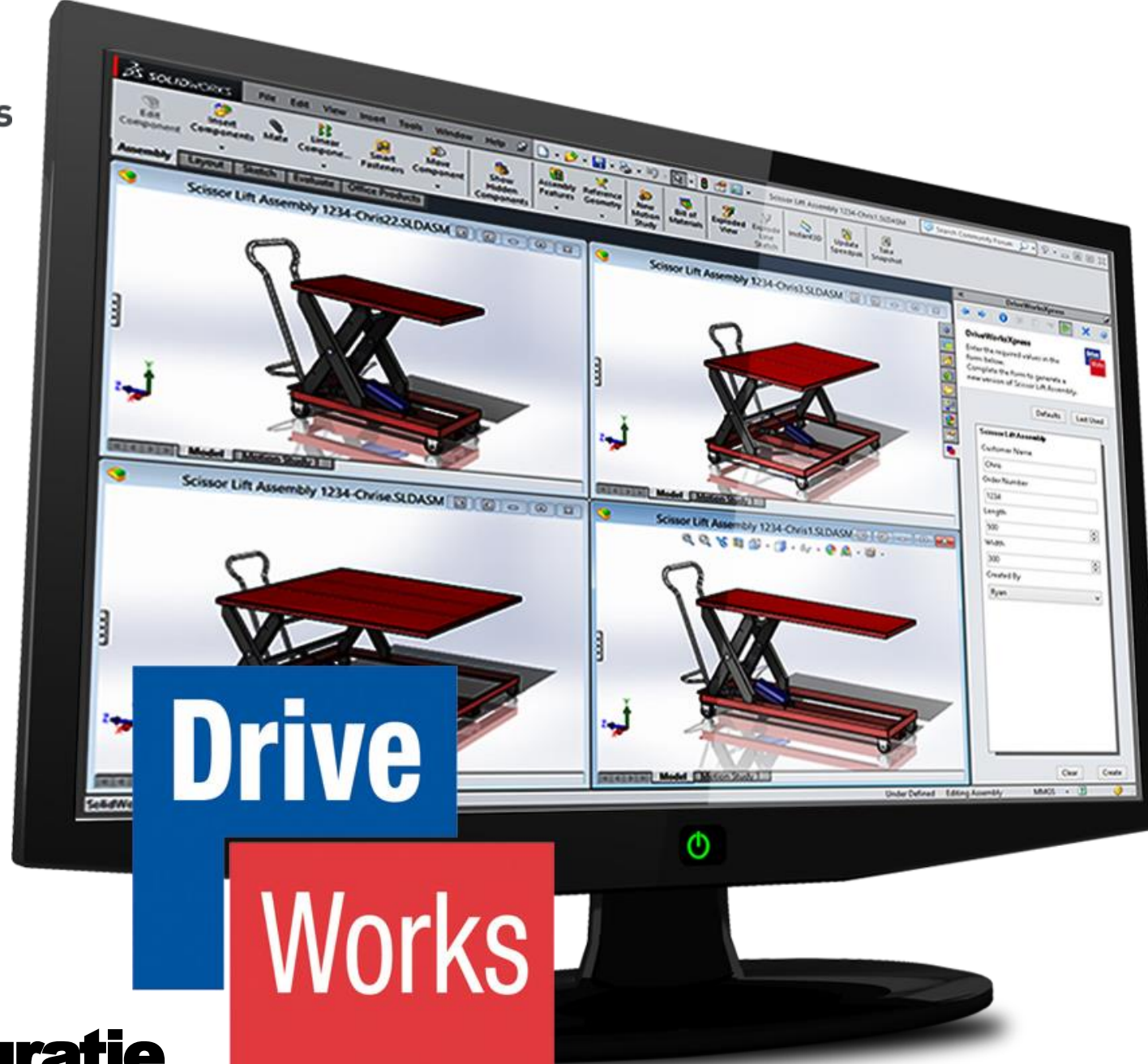
DIGITALISERING EN PROCESAUTOMATISERING

Product configuratie / CPQ

Drive

Works





Product Configuratie



design solutions

09:41
acmcorp.com

100%

visiativ

CPQ – Configure Price Quote

← BACK

Options

Step Height (Rise)

Step Depth (Going)

Step Width (Inside)

Number Of Steps

Style

Left Side (String)

Right Side (String)

☒ Nosing

1st Feature Step

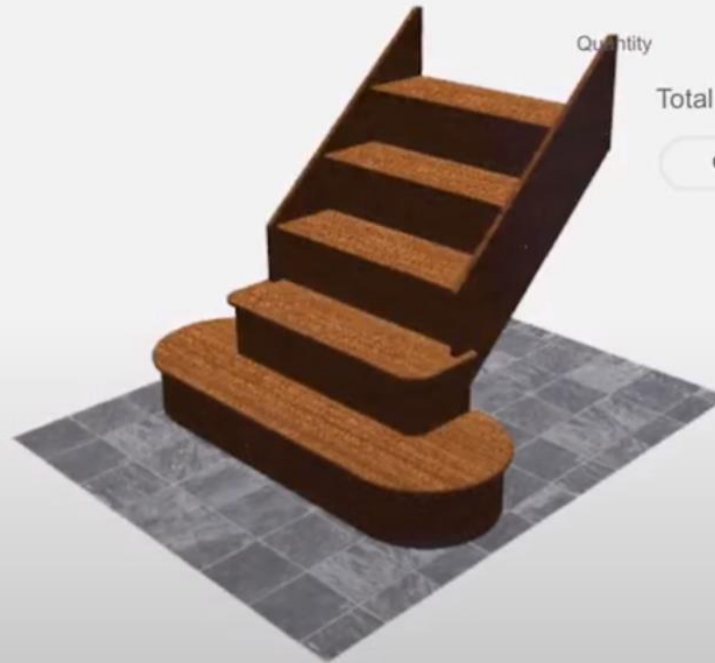
Feature Step Side

2nd Feature Step

Material



Preview creation takes around 15-20 seconds



RRP: £1408.57

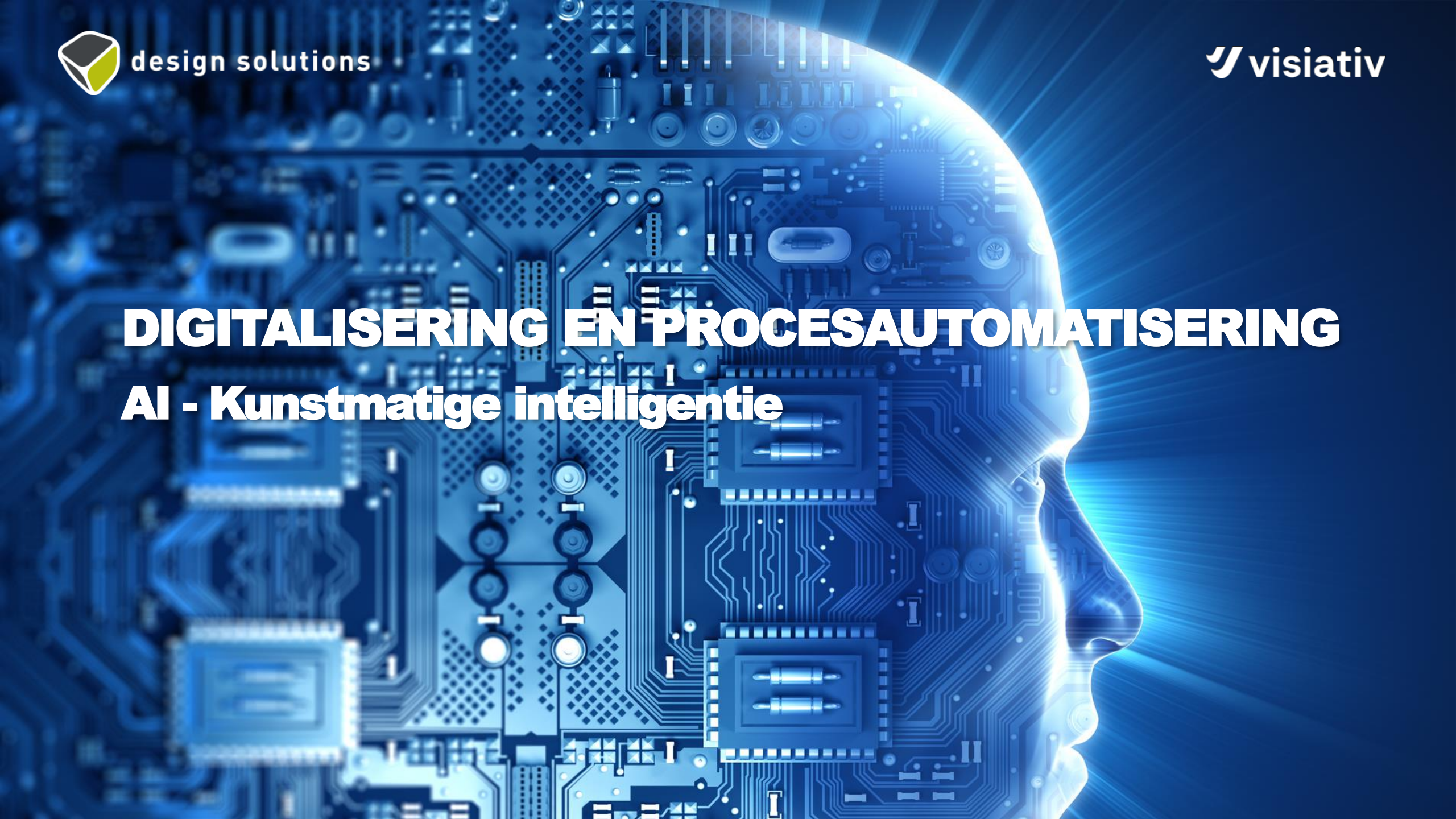
Quantity Price: £1408.57

Discounted Price: £1408.57

Quantity

Total Price: £1408.57

Order



DIGITALISERING EN PROCESAUTOMATISERING

AI - Kunstmatige intelligentie



DALL·E 2



DALL·E 2 is a new AI system that can create realistic images and art from a description in natural language.

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AI - taal naar afbeelding

“Een stoel in de vorm van een avocado”





Generative design



Legacy



Additive Manufacturing

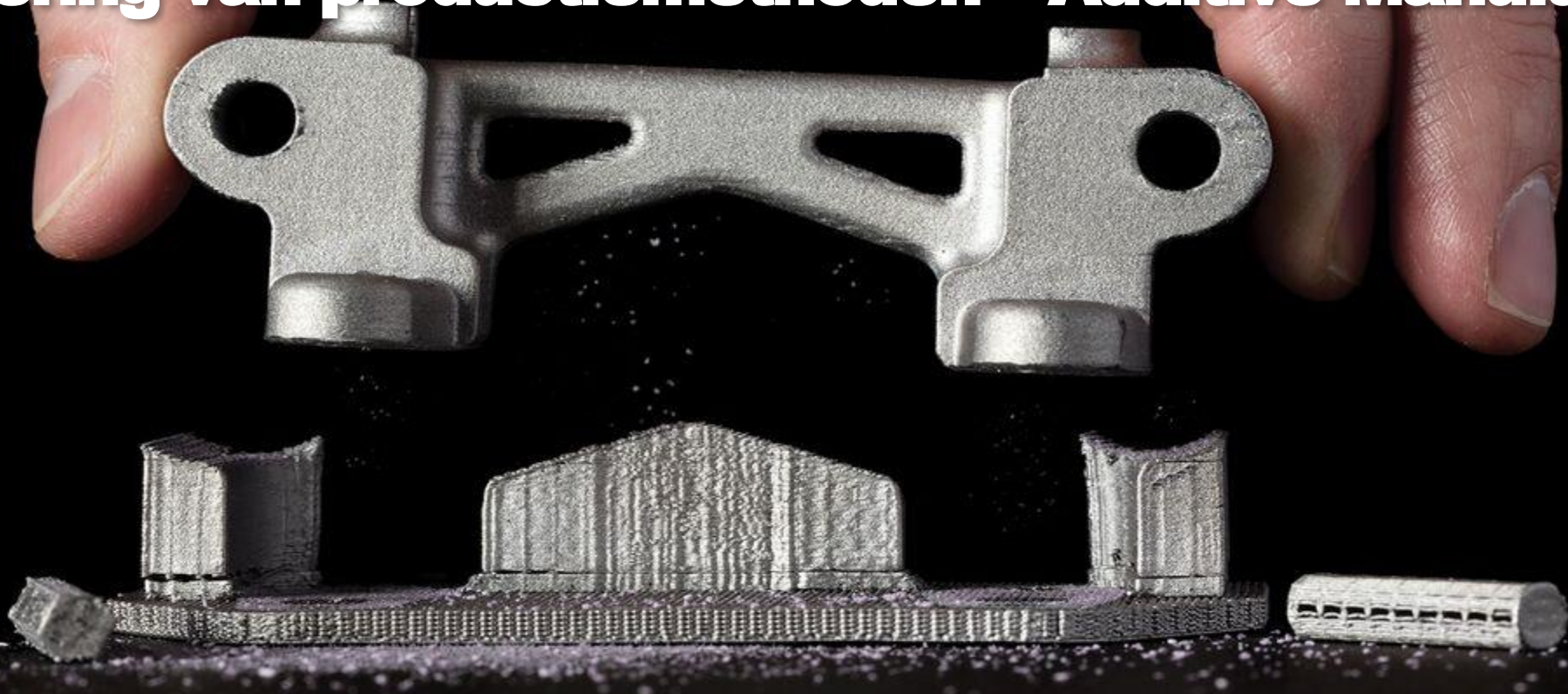


Machining



DIGITALISERING EN PROCESAUTOMATISERING

Verandering van productiemethoden – Additive Manufacturing





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DIGITALISERING EN PROCESAUTOMATISERING

AR/VR - Verbinding van de echte en de digitale wereld



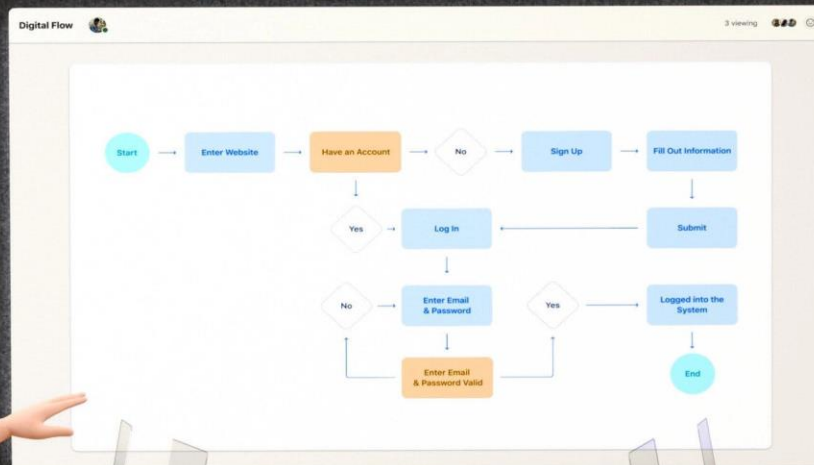


Workrooms Meeting
10:00 AM - 11:00 AM



Sharing screen
Lucy Tomkins

10:05 AM
Thu, Sept 10 2021



Metaverse

Virtueel toerisme



Training en onboarding NVIDIA Omniverse – BMW





Simulatie van fabrieksproces

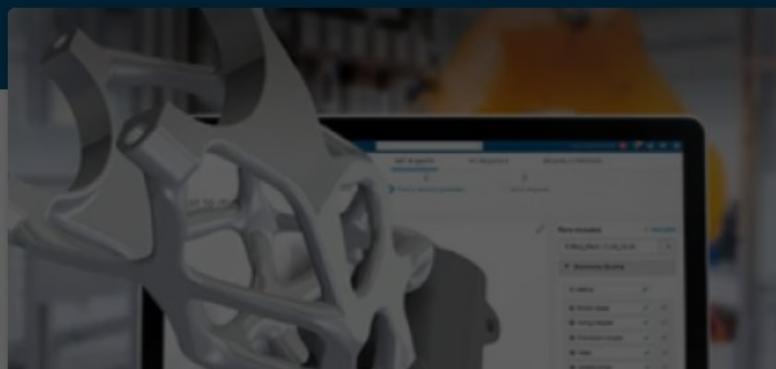
3DEXPERIENCE platform

3DEXPERIENCE® Marketplace On-demand Access to Industrial Services Providers

DIGITALISERING EN PROCESAUTOMATISERING

Handel door communities

► Watch the Video



Make

Marketplace for Manufacturing on demand

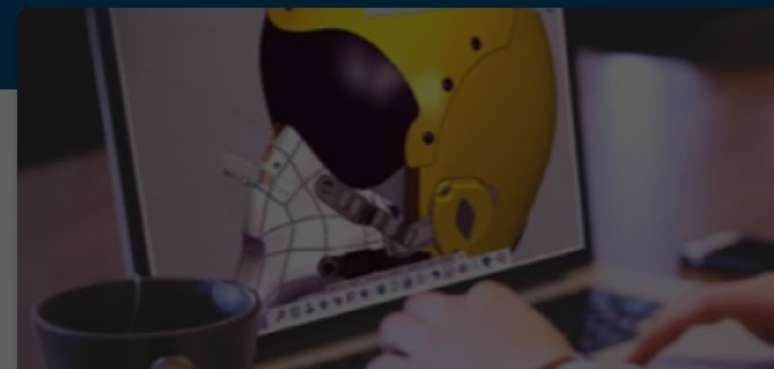
Connect With Manufacturers



PartSupply

The 3d components you need, at your fingertips

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Engineering

Digitize, Design or Certify your Products

Send your request

3DEXPERIENCE® Marketplace On-demand Access to Industrial Services Providers

Online qualified ecosystem of industrial service providers worldwide

► Watch the Video



Make

Marketplace for Manufacturing on demand

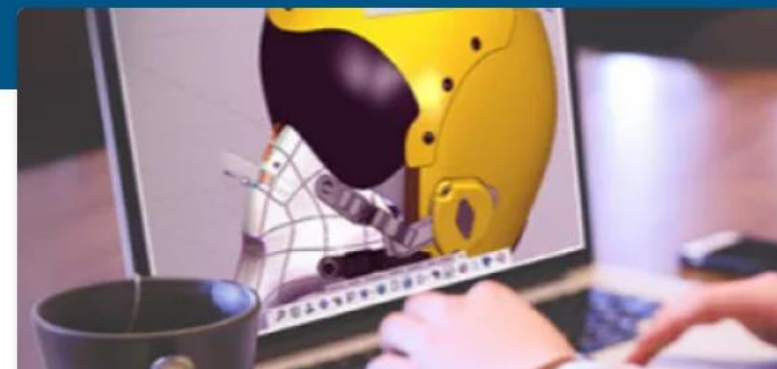
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The 3d components you need, at your fingertips

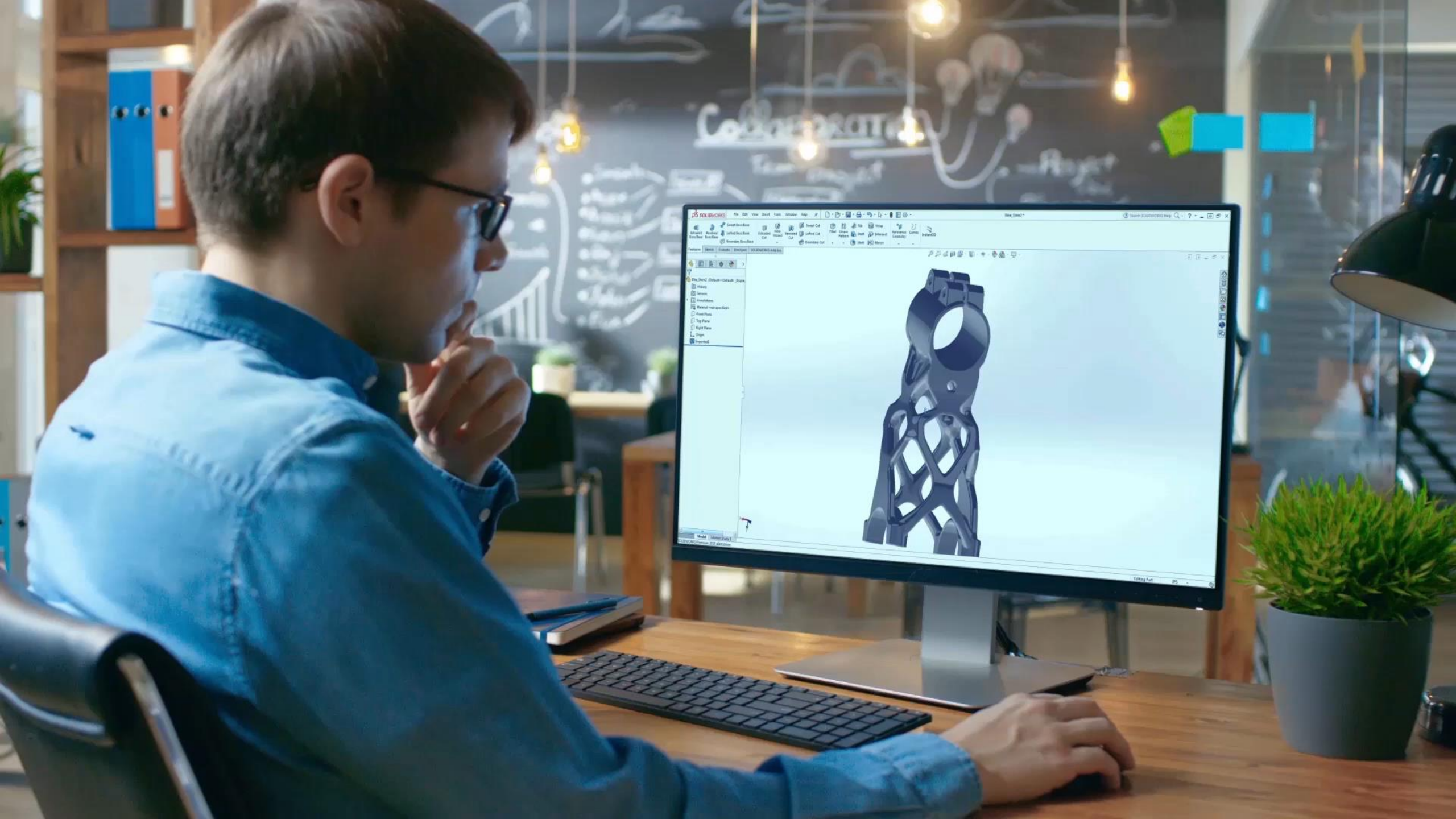
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Engineering

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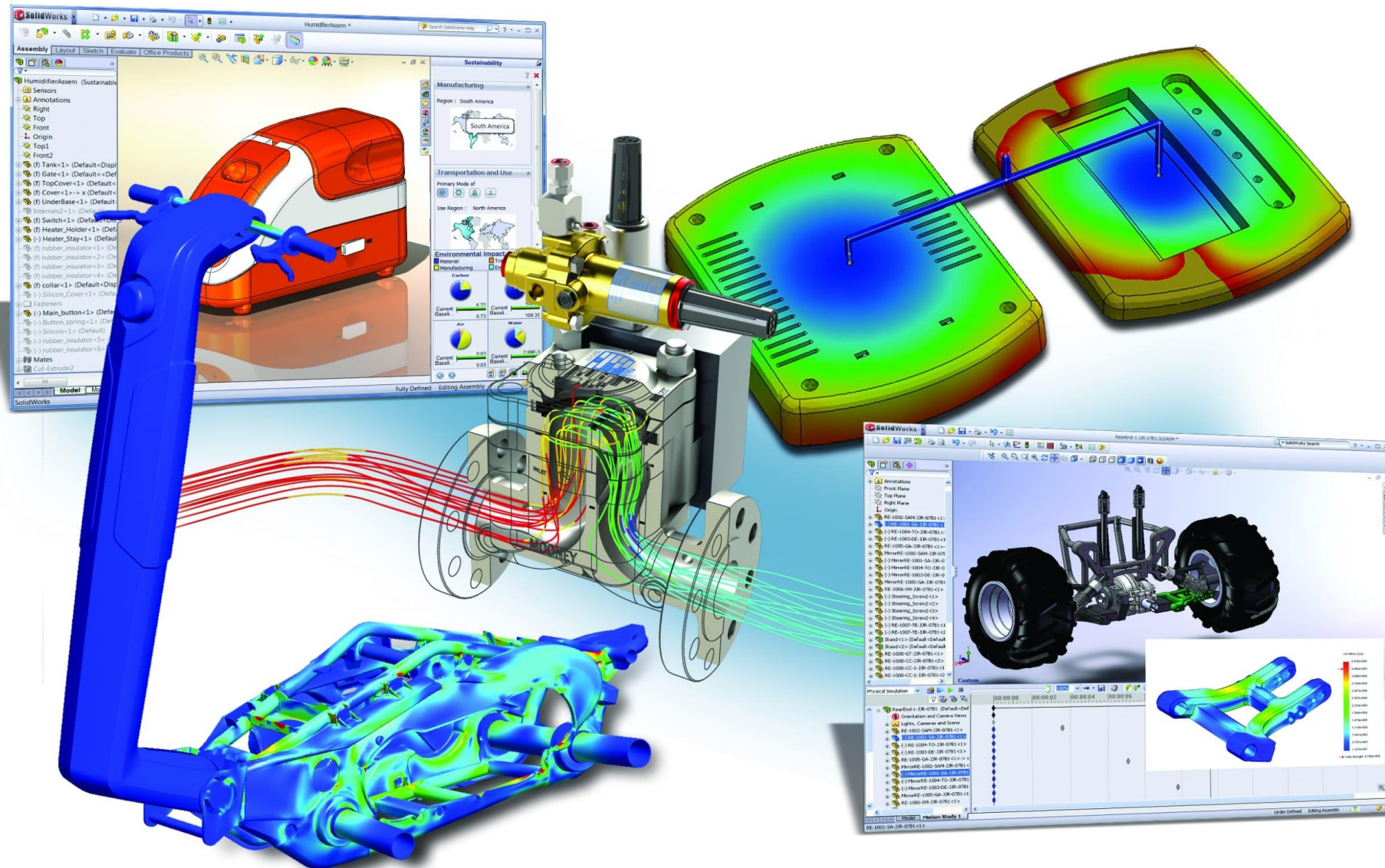

DESIGN AUTOMATE ORDER DEPLOY ||

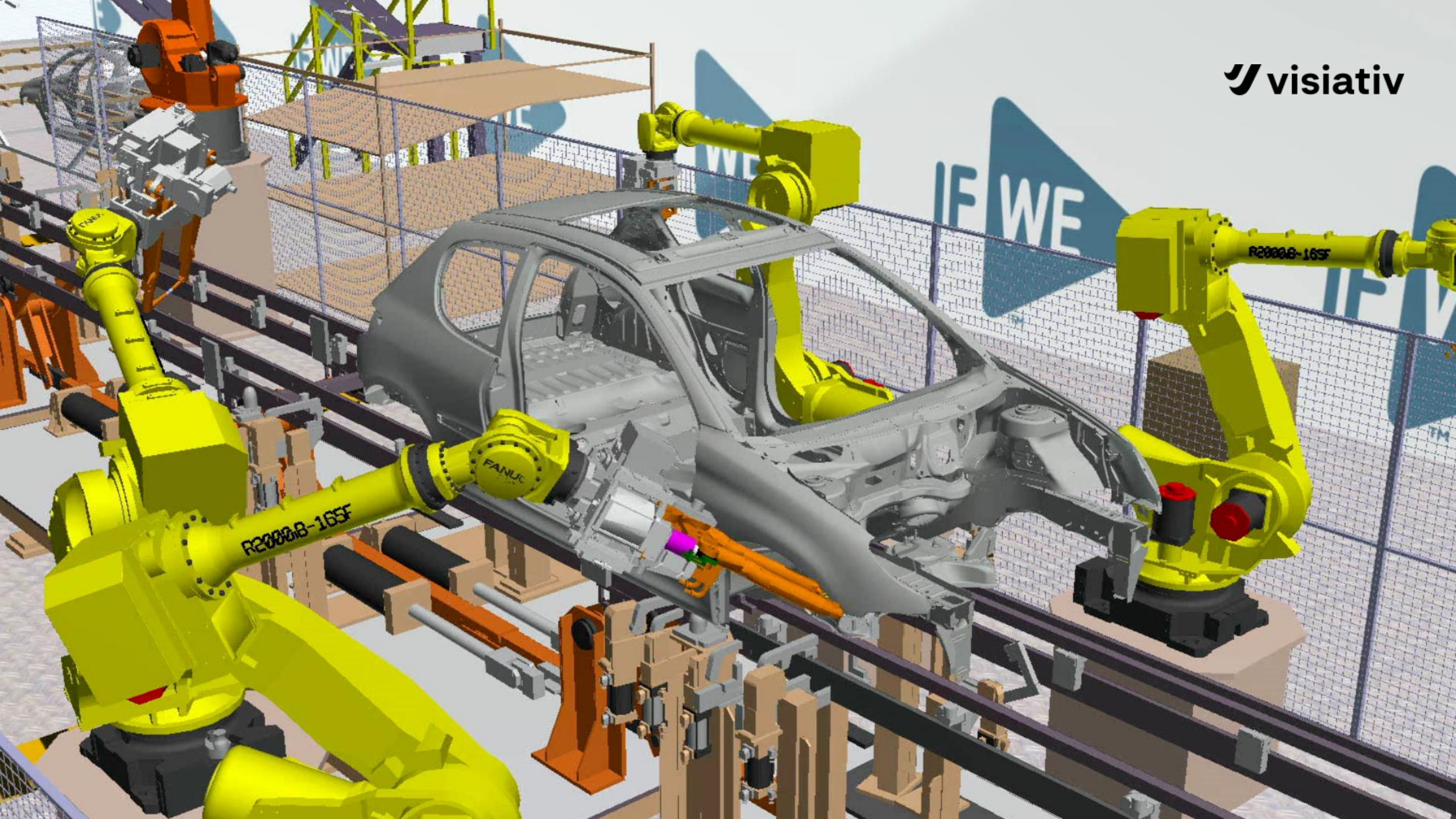
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DIGITALISERING EN PROCESAUTOMATISERING

Digital Twins





DE TOEKOMST VAN CAD EN ENGINEERING IS NU!