

V O L V O

EXPLORE THE ALL-NEW LARGE WHEEL LOADER

Presented by Maria Constanza
Vitorgan Barrenechea

VOLVO



V O L V O



NEW GENERATION

THE ALL-NEW WHEEL LOADER LARGE PLATFORM

HELLO / KIA ORA!

I am Maria, electrical installation lead engineer for wheel loaders at Volvo CE Technology Center.

Passionate of design, racing, dogs, travel, food and now construction machines 😊

Join me in a journey where we explore the development of the new WLO series K



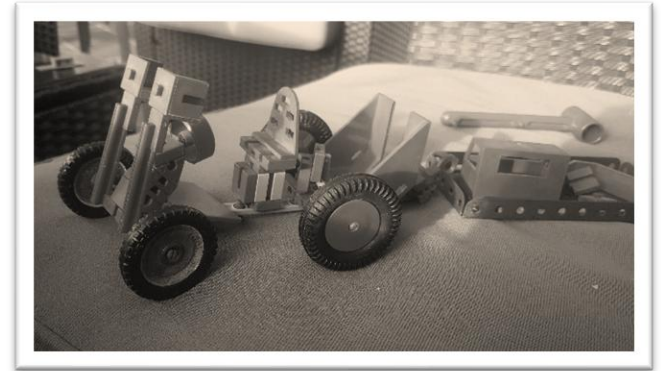
VOLVO

MY JOURNEY

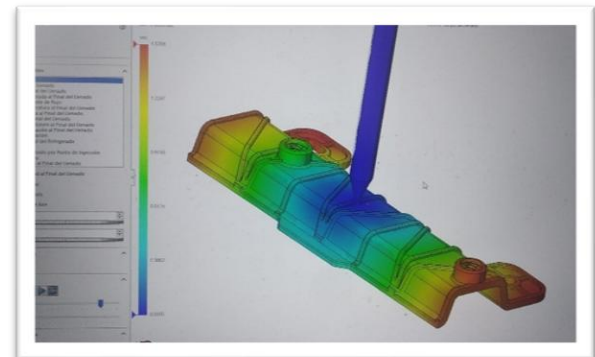
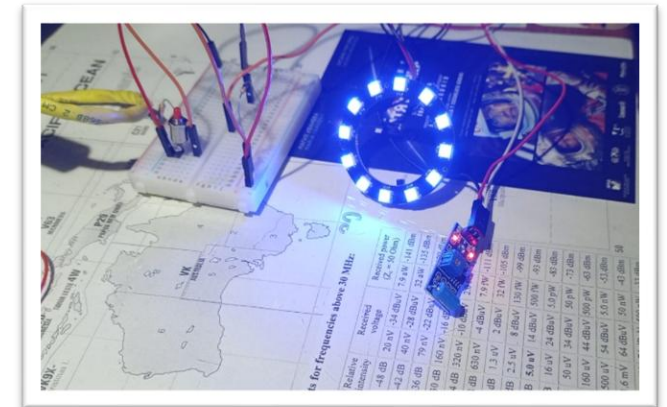
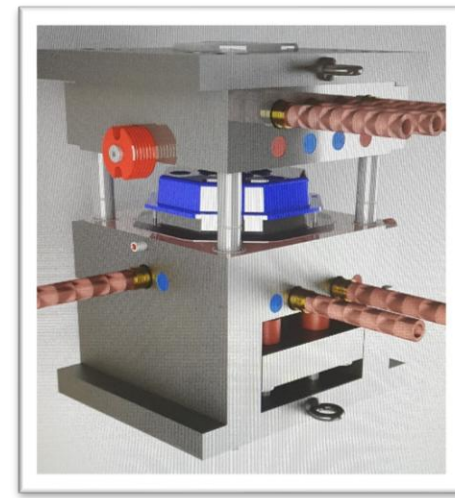


VOLVO

1988 – Argentina
Where I born and when Volvo
launched the BM L120

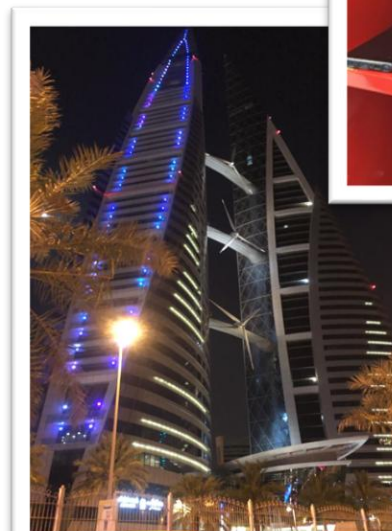


2000 - Spain
Where I raised and started
my career as engineer



COLVO

2018 – Bahrain
Where I worked for
1st time abroad
(Bell helmets)



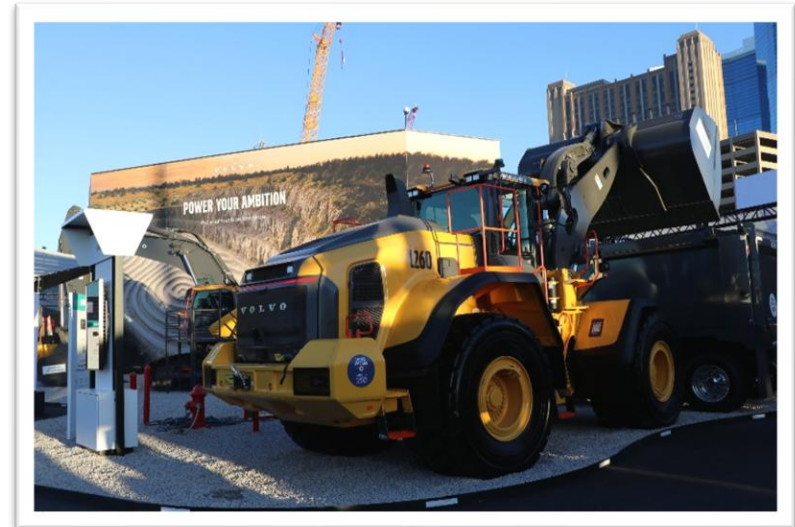
VOLVO

2022 - Sweden

When I joined Volvo CE

2024 - Sweden

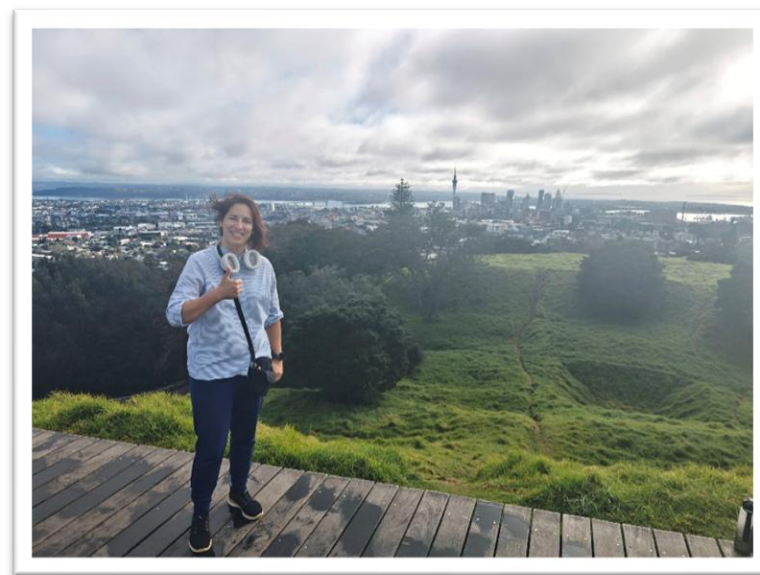
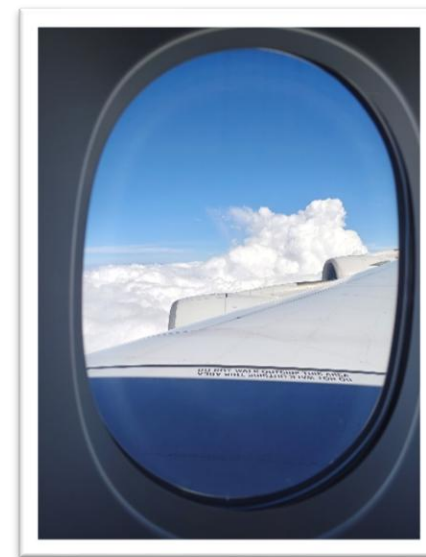
New WLO Large is born
in its 70th anniversary



VOLVO

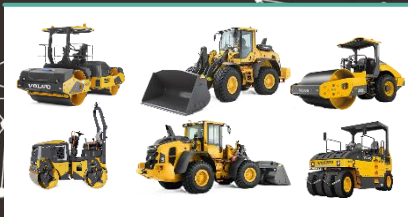


2026 – New Zealand
My 1st journey abroad
with Volvo 😊



VOLVO

UNITED STATES
SHIPPENSBURG



UNITED KINGDOM
MOTHERWELL



ROKBAK

POLAND,
WROCLAW

FRANCE
BELLEY



BRAZIL
PEDERNEIRAS



GERMANY
KONZ



SWEDEN
ESKILSTUNA (HQ)



SWEDEN
ARVIKA



SWEDEN
HALLSBERG



SWEDEN
BRAAS



KOREA
CHANGW



CHINA
SHANGHAI

CHINA
JINAN



INDIA
BANGALORE



+13000 STORIES MORE

-  VOLVO PRODUCTION FACILITY
-  PRODUCTION OF ELECTRIC MACHINES/COMPONENTS
-  RESEARCH & DEVELOPMENT

MADE FOR PEOPLE FROM PEOPLE

(Volvo not only build machines but also people)

THE PROJECT

$$\frac{m_1 m_2}{d^2}$$

$$i\hbar \frac{\partial}{\partial t} \psi = \hat{H} \psi$$

$$\phi(x) = \frac{1}{\sqrt{2\pi\sigma}} e^{-\frac{(x-\mu)^2}{2\sigma^2}}$$

$$F - E + V = 2$$

$$E = mc^2$$

$$dS \geq 0$$

$$\frac{\partial^2 u}{\partial t^2} = c^2 \frac{\partial^2 u}{\partial x^2}$$

$$\frac{df}{dt} = \lim_{h \rightarrow 0} \frac{f(t+h) - f(t)}{h}$$

EVERY GREAT PROJECT STARTS WITH A GREAT TEAM

Engineering

20 engineers covering different functional areas

Operations

8 specialist dedicated for production

Aftermarket

8 professionals for entry to market documentation

Program Team

6 responsible for project management and machine launch

NEW GENERATION 



FOCUS ON THE TARGET, NOT THE OBSTACLES

NEW GENERATION 



Complete WLO Large platform (L150-LC450)

Performance & Productivity

- Lower fuel consumption (improved driveline)
- Better bucket fill and shorter fill cycles
- Better traction and control of machine

Operator environment

- Better machine experience
- Intuitive and user-friendly interface
- Enable more features

Uptime

- New internal and external design
- Better front and rear visibility
- Improved safety features
- Improved service and maintenance life cycle



EVERY STEP FORWARD, GOT US CLOSER TO OUR TARGET (YOU)

- ■ LIFTING HEIGHT INCREASED & HYD.PUMP IMPROVED
- ■ AUTO BUCKET FILL

- ■ UPDATED CAB DESIGN
- ■ NEW ELECTRONIC PLATFORM (CEA2+ 2.0)
- ■ NEW INTEGRATED COPILOT & INST. CLUSTER
- ■ REMOTE SOFTWARE DOWNLOAD (TGW3)

- MACHINE EXPERIENCE
- DRIVELINE IMPROVEMENTS
- FUEL EFFICIENCY / SUSTAINABILITY
- AUTOMATION ENABLER
- SAFETY / SERVICE FEATURES

- ■ ■ AUTOMATIC TRACTION CONTROL (L220/260)
- ■ ■ DIRECT LOCKUP SHIFTING (L150/180)
- ■ UPDATED DYNAMIC STRATEGY (ALL)



NEW GENERATION 

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- FUEL EFFICIENCY / SUSTAINABILITY
- AUTOMATION ENABLER
- SAFETY / SERVICE FEATURES

- New exterior and interior design
- Windchill cleaning platform
- Improved cab-tilt ...

NEW GENERATION 

■ ■ UPDATED CAB DESIGN



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- MACHINE EXPERIENCE
- DRIVELINE IMPROVEMENTS
- FUEL EFFICIENCY / SUSTAINABILITY
- AUTOMATION ENABLER
- SAFETY / SERVICE FEATURES

- Machine status, controls & settings
- Assist & productivity applications
- Media and other apps

NEW GENERATION 

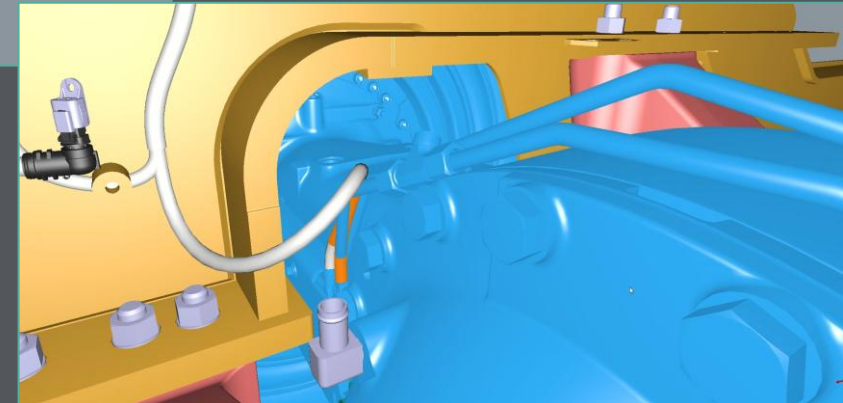
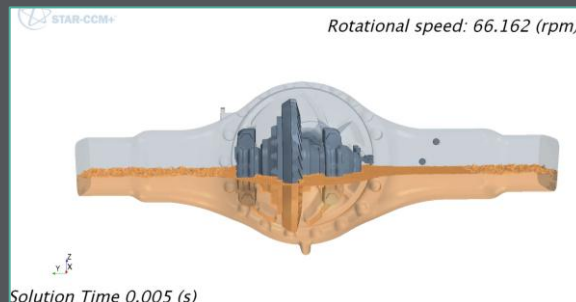
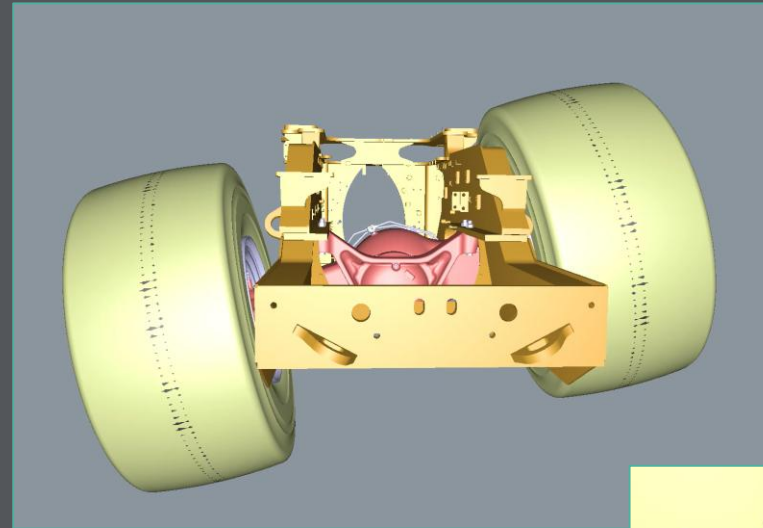
NEW INTEGRATED COPILOT & INSTRUMENT CLUSTER



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- MACHINE EXPERIENCE
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- FUEL EFFICIENCY / SUSTAINABILITY
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- SAFETY / SERVICE FEATURES

■ ■ ■ ■ ■ AUTOMATIC TRACTION CONTROL



NEW GENERATION 

EVERY STEP FORWARD, GOT US CLOSER TO OUR TARGET (YOU)

- NEW BATTERY SWITCH (RHS)
- ELECTRIC SERVICE PANEL (RHS)
- IMPROVED ELECTRICAL SYSTEM

- ENGINE WITH SMART CONTROL
- NEW ELECTRIC FUEL PRIME PUMP
- NEW FUEL AND OIL FILTER HOUSING
- FAST FUEL FILL (OPTION)
- UPDATED FIRE SUPPRESSION SYSTEM
- UPDATED MUFFLER

- MACHINE EXPERIENCE
- DRIVELINE IMPROVEMENTS
- FUEL EFFICIENCY / SUSTAINABILITY
- AUTOMATION ENABLER
- SAFETY / SERVICE FEATURES

- NEW HOOD DESIGN
- SMART 360 CAMERA VIEW
- UPDATED COLLISION MITIGATION SYSTEM
- NEW SERVICE LIGHT

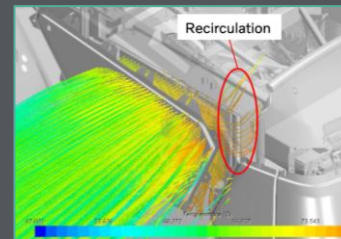
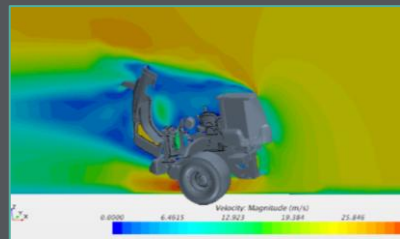
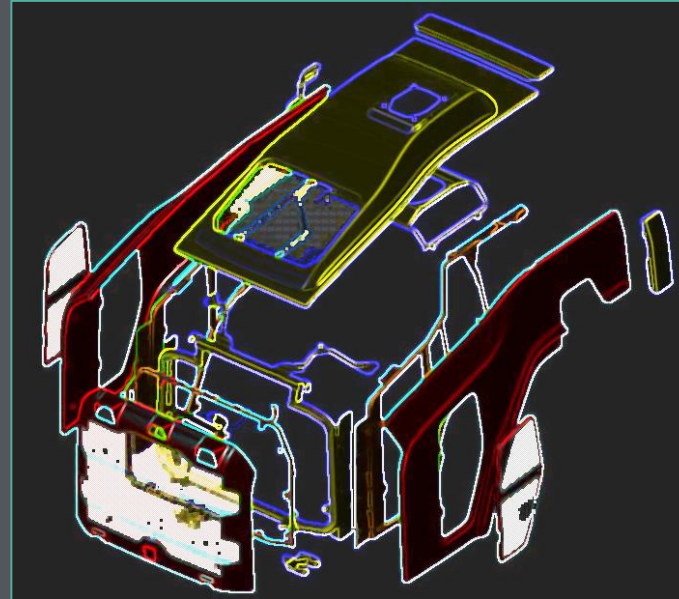


NEW GENERATION 

EVERY STEP FORWARD, GOT US CLOSER TO OUR TARGET (YOU)

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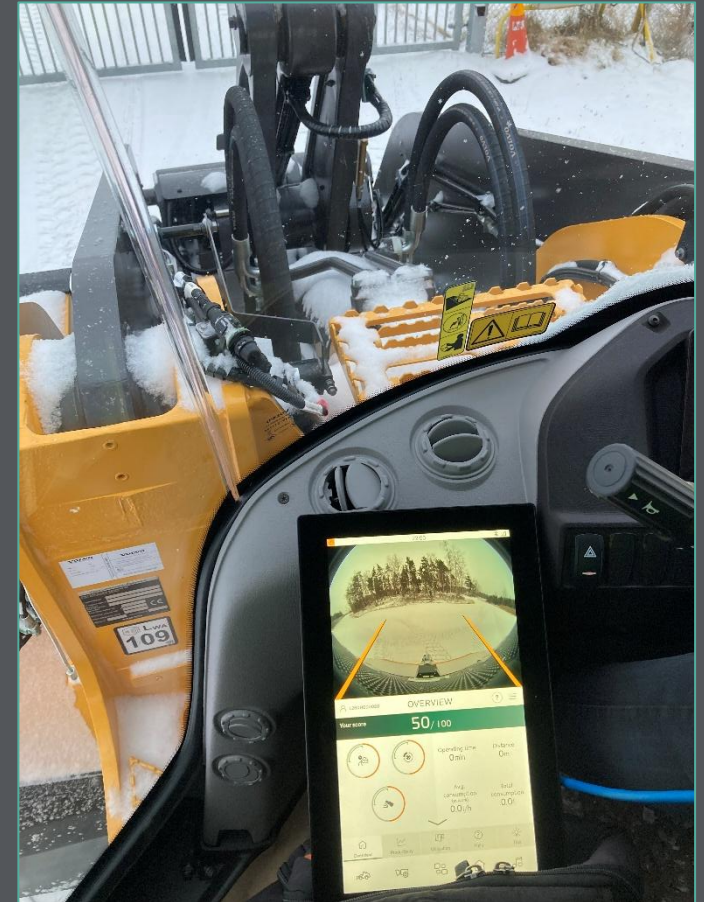
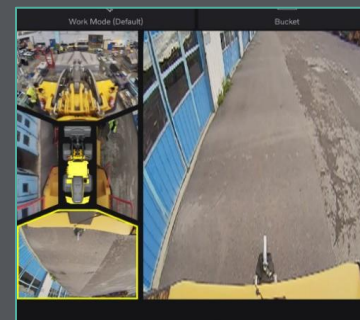
NEW HOOD DESIGN



EVERY STEP FORWARD, GOT US CLOSER TO OUR TARGET (YOU)

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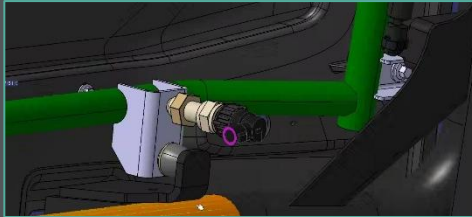
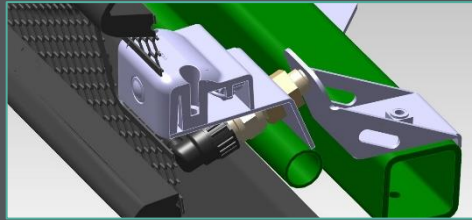
REAR CAMERA



EVERY STEP FORWARD, GOT US CLOSER TO OUR TARGET (YOU)

- MACHINE EXPERIENCE
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- FUEL EFFICIENCY / SUSTAINABILITY
- AUTOMATION ENABLER
- SAFETY / SERVICE FEATURES

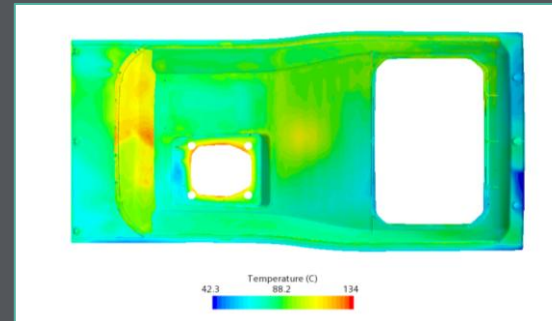
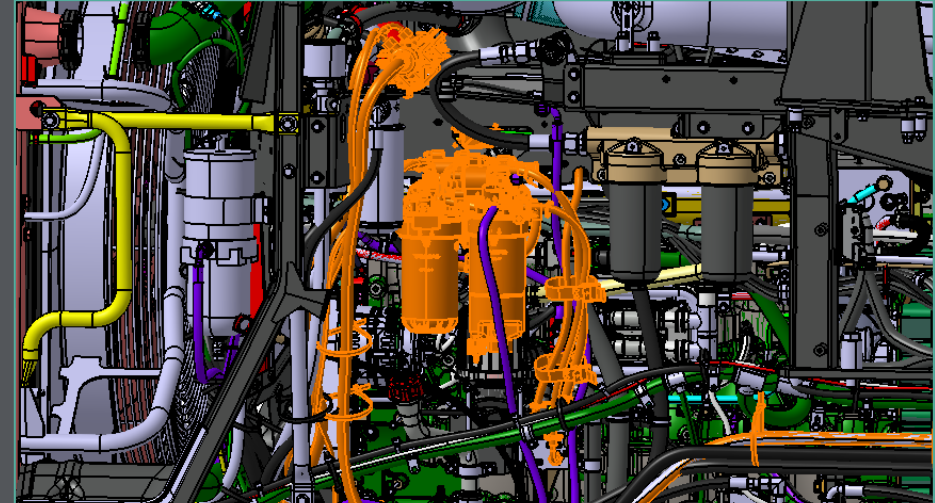
■ SERVICE LIGHT



EVERY STEP FORWARD, GOT US CLOSER TO OUR TARGET (YOU)

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- SAFETY / SERVICE FEATURES

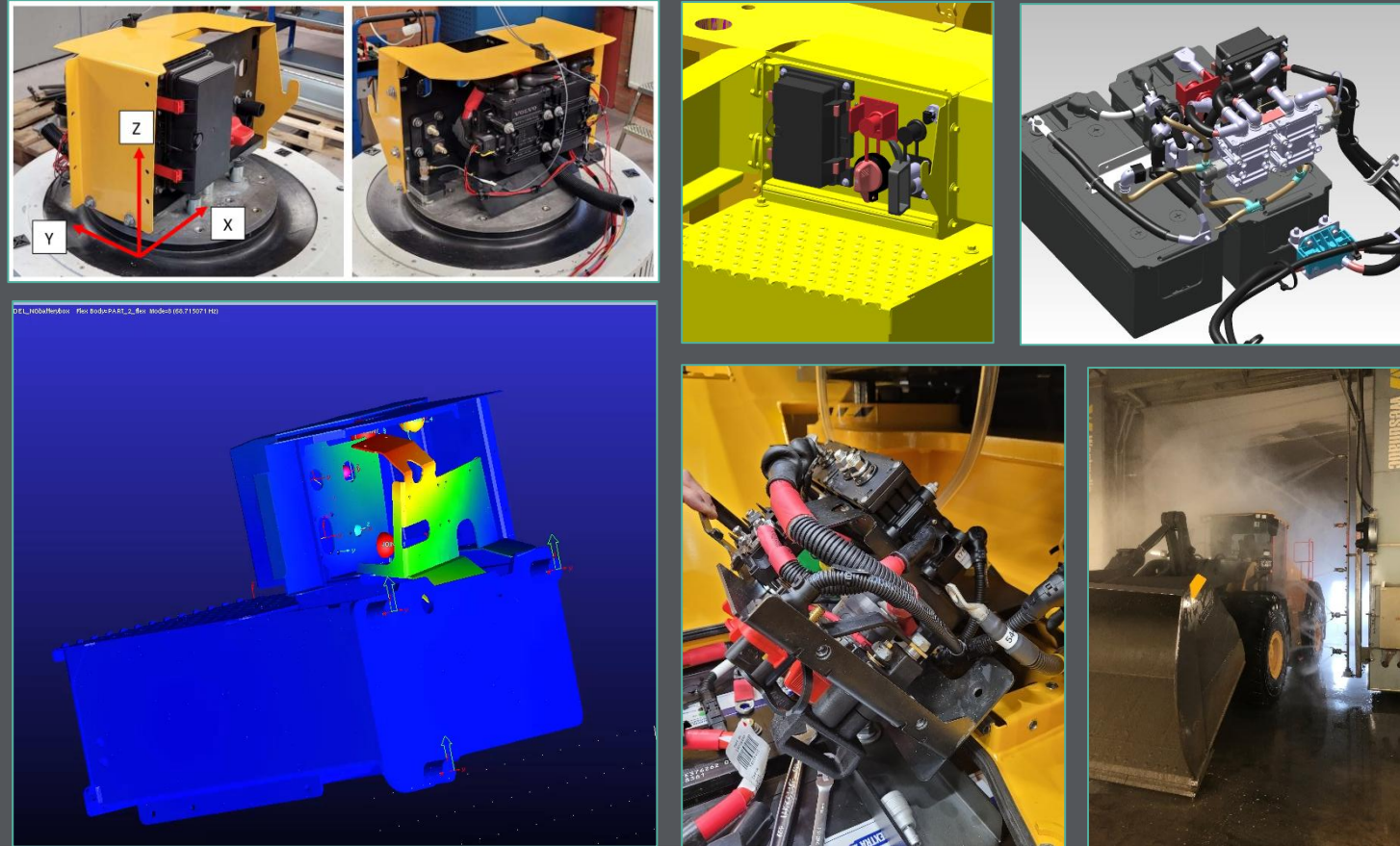
■ ■ ■ FAST FUEL FILL & ELECTRIC FUEL PRIME PUMP



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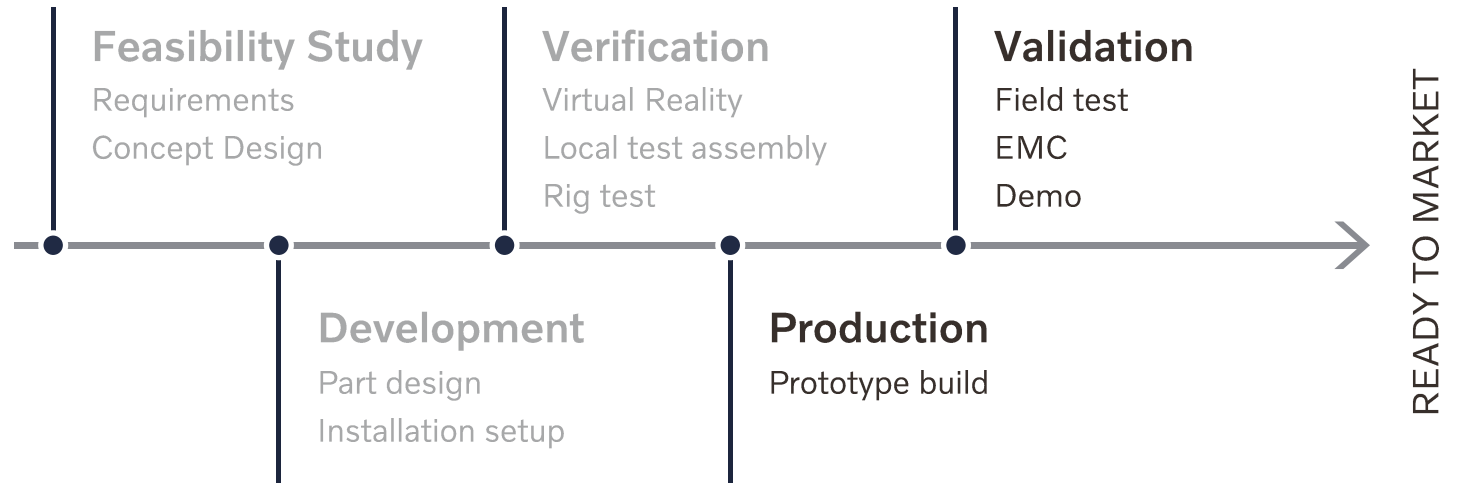
IMPROVED ELECTRICAL SYSTEM & BATTERY SERVICE PANEL



V O L V O

LAUNCH IN 3, 2, 1...THE NEW GENERATION WLO IS IN ORBIT

NEW GENERATION 



LAUNCH IN 3, 2, 1...THE NEW GENERATION WLO IS IN ORBIT

Engineering

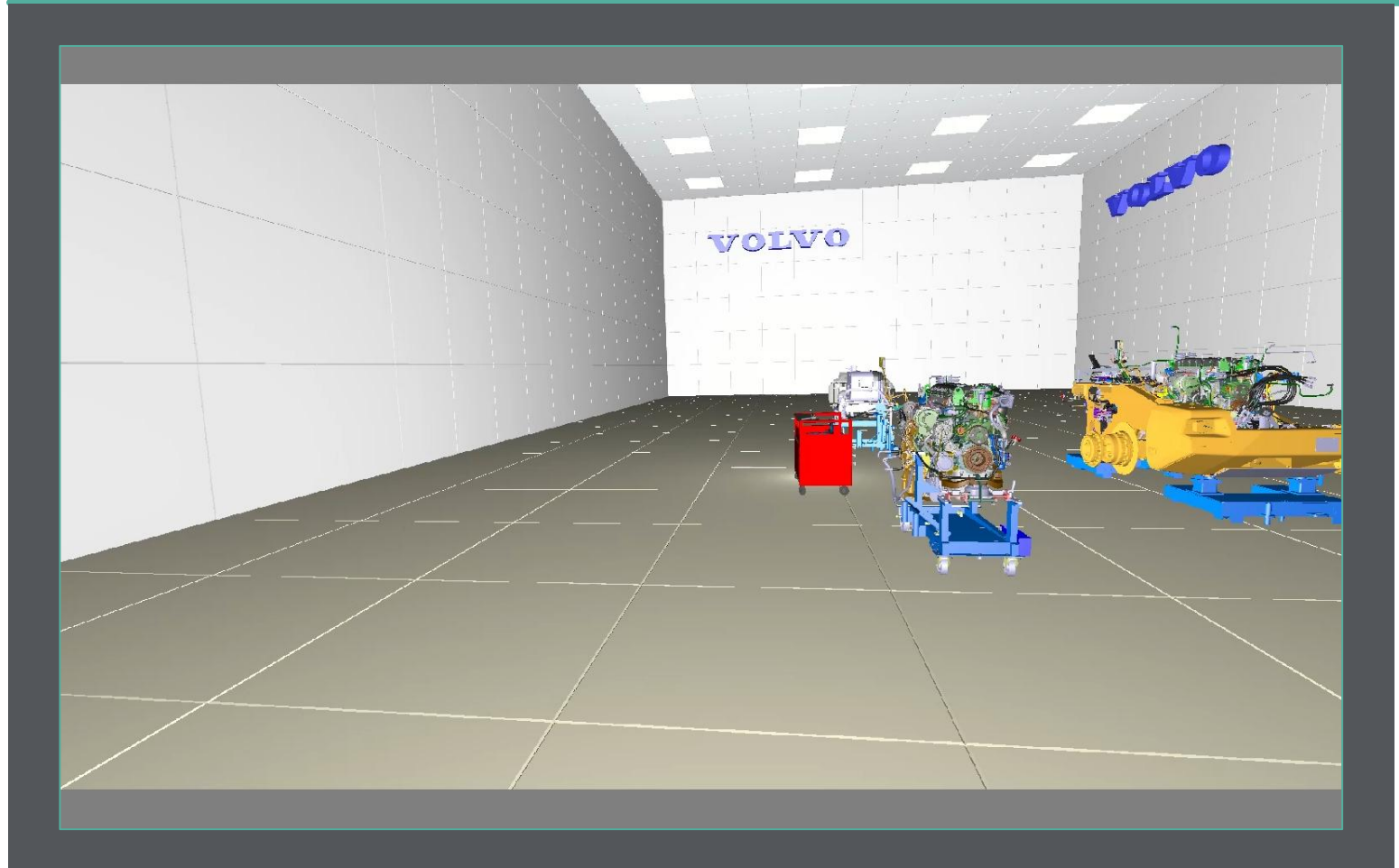
- Verification of installation

Operations

- Assembly sequence in production
- Service for aftermarket
- Assembly Ergonomics

NEW GENERATION 

PRODUCTION ANALYSIS



LAUNCH IN 3, 2, 1...THE NEW GENERATION WLO IS IN ORBIT

Engineering

- Verification of electronic and electrical components and system
- Validation of machine to EMC/EMI

Program Team

- CE marking

NEW GENERATION 

ELECTRO-MAGNETIC COMPATIBILITY TEST (EMC)



Cables and
connectors



ECU's



Antennas



Sensors and
actuators



PCB's with
microprocessors



Software



LAUNCH IN

3, 2, 1...THE NEW GENERATION WLO IS IN ORBIT

Engineering

- Validation of components function

Operations

- Testing of software & functions

Program Team

- Feedback from operations

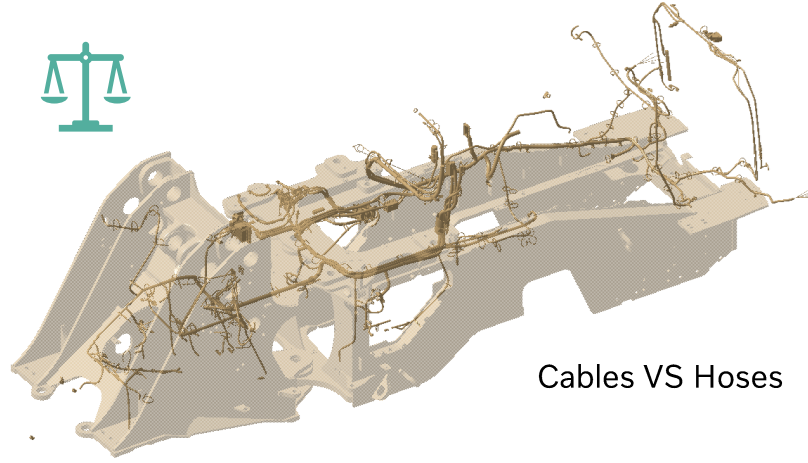
NEW GENERATION 

FIELD DRIVE TEST (RG)

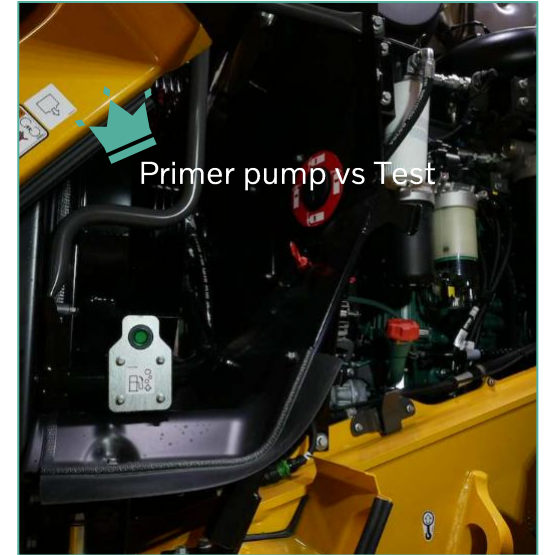


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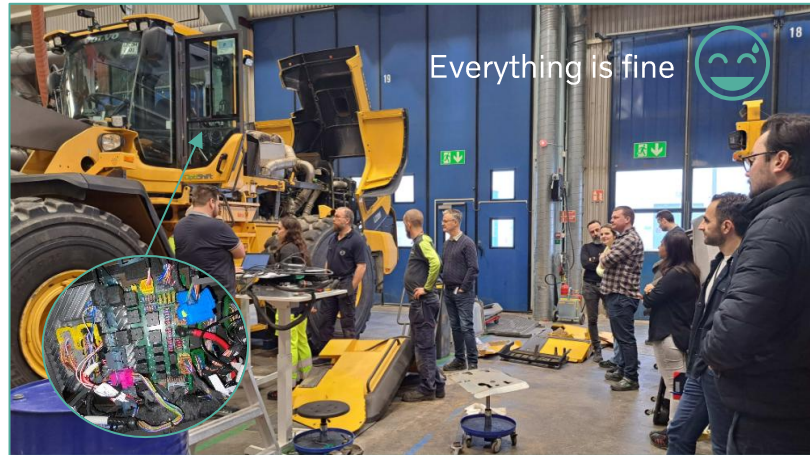
WISDOM BEGINS IN
WONDER, SO, BE
CURIOUS MY
FELLOWS



Cables VS Hoses



Primer pump vs Test



Everything is fine

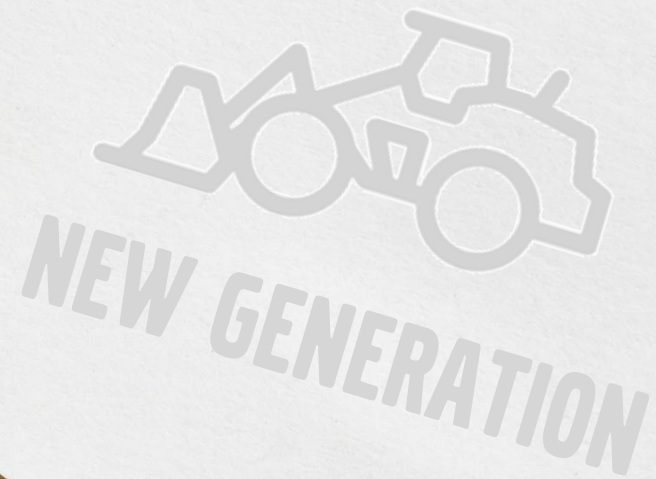


"Magic Box"

NEW GENERATION 

VOLVO

THE RESULT



VOLVO



VOLVO

THANK YOU





NEW VGMORE NEWS! COMING! RLETED

