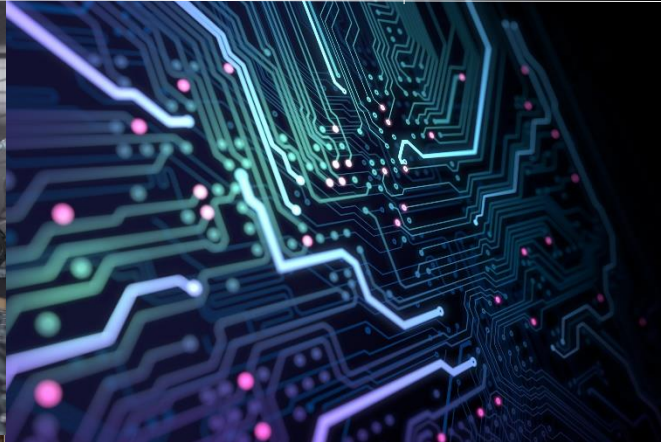
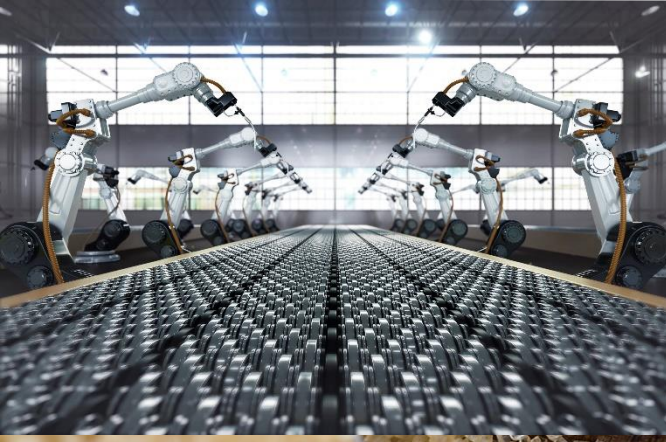
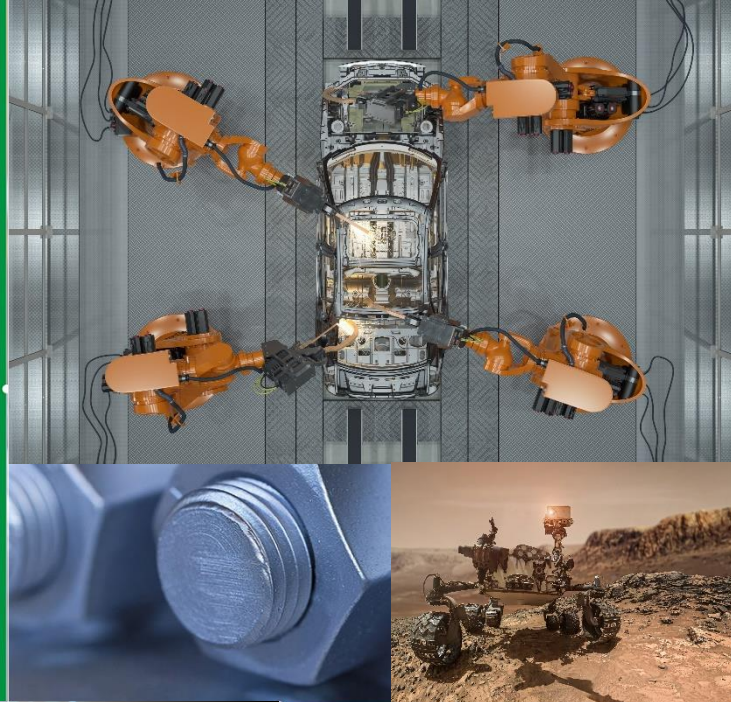


THE ROBOTICS REVOLUTION AND THE KEY ROLE OF LUBRICANTS

LUBRICANT EXPO, 8TH SEPTEMBER 2022



DR. JULIA HUFEN
CASTROL SENIOR MANAGER INDUSTRIAL PRODUCTS

PATRICK BELL
CASTROL INDUSTRIAL SALES DIRECTOR CENTRAL EUROPE

IT'S MORE THAN JUST OIL. IT'S LIQUID ENGINEERING.



THE 4TH INDUSTRIAL REVOLUTION

4 MILLION

INDUSTRIAL ROBOTS ARE
EXPECTED TO BE IN
OPERATION BY 2025



EFFECTIVE AUTOMATION RELIES ON EXCELLENT LUBRICATION

RESEARCH SUGGESTS THAT A SINGLE MINUTE
OF INTERRUPTION CAN COST AN AUTOMOTIVE
MANUFACTURER ROUGHLY \$22,000*

* BASED ON THE INDUSTRY RESEARCH WITH 101 MANUFACTURING EXECUTIVES IN THE AUTOMOTIVE INDUSTRY CONDUCTED BY NIELSEN RESEARCH, AND COMMISSIONED BY ADVANCED TECHNOLOGY SERVICES, INC. (ATS). WHILE ONE MINUTE OF STOPPED PRODUCTION, OR DOWNTIME, COSTS AN AVERAGE OF \$22,000, SOME SURVEY RESPONDENTS CITE THE FIGURE TO BE AS HIGH AS \$50,000 PER MINUTE



CONTINUOUS RESEARCH AND DEVELOPMENT

TO OFFER SOLUTIONS THAT ARE
ALIGNED WITH EVOLVING ROBOTS.



DEMAND FOR
HIGH-QUALITY
LUBRICANTS IN
ROBOTICS IS
SET TO INCREASE





THANK YOU

PATRICK BELL

CASTROL INDUSTRIAL SALES DIRECTOR CENTRAL EUROPE

DR. JULIA HUFEN

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