

## Welcome to Modugno!







Swamy Kotagiri CHIEF EXECUTIVE OFFICER

Vince Galifi PRESIDENT

Pat McCann CHIEF FINANCIAL OFFICER

Eric Wilds CHIEF SALES & MARKETING OFFICER

Aaron McCarthy CHIEF HUMAN RESOURCES OFFICER

Boris Shulkin CHIEF DIGITAL AND INFORMATION OFFICER

Anton Mayer CHIEF TECHNOLOGY OFFICER

Bruce Cluney CHIEF LEGAL OFFICER

Uwe Geissinger PRESIDENT MAGNA EUROPE

7hen Wu PRESIDENT MAGNA CHINA

# Magna leadership.

John Farrell   President			Tom Rucker   President				
BODY EXTERIORS & STRUCTURES		SEATING SYSTEMS	POWER & VISION			COMPLETE VEHICLES	NEW MOBILITY
BODY & CHASSIS	EXTERIORS	SEATING	POWERTRAIN	ELECTRONICS	MECHATRONICS, MIRRORS, LIGHTING	COMPLETE VEHICLES	NEW MOBILITY
John O'Hara PRESIDENT	Grahame Burrow PRESIDENT	John Wyskiel PRESIDENT	Diba Ilunga PRESIDENT	Sharath Reddy SENIOR VICE PRESIDENT	Jeff Hunt PRESIDENT	Roland Prettner	Matteo DelSorbo EXECUTIVE VICE PRESIDENT



# Magna

By the numbers. **\$37.8B** in sales

344

manufacturing assembling facilities

181,000+

entrepreneurial employees



#1 north america market position

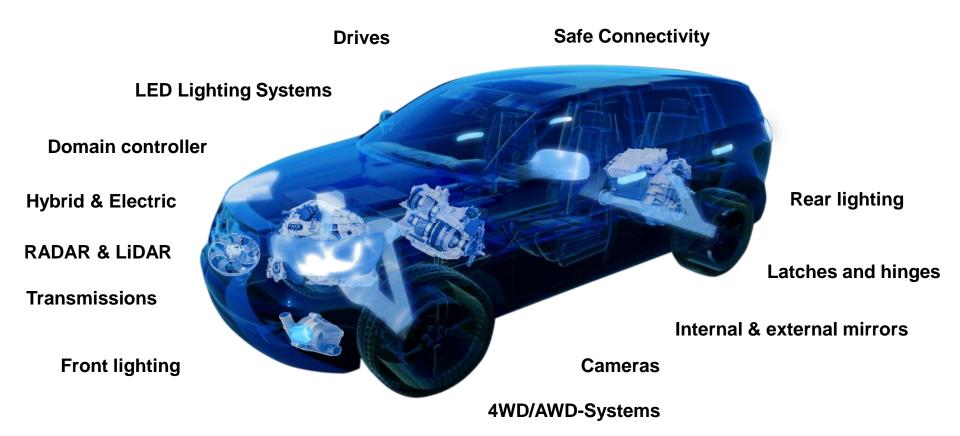
#4

global market position

AS OF Q3 2023

## Magna Powertrain is part of the "Power & Vision," Business Unit







## Modugno Division: History



#### 1998

Start of production

#### 2016

Integration into Magna

#### 2018

Company name changed in Magna PT S.p.A.











#### 1996

Established as "Getrag S.p.A"



Groundbreaking ceremony
Building extension

## Modugno Division: Product Time Line



1998

August

SOP 28x

2008

July

SOP Gear Sets 6DCT250

2018

January

SOP 7DCT300 1st Assembly Line

Capacity installed: 375.000/year (1.339/day)

2021

7DCT300

Total capacity installed:

840.000/year (3.000/day)





28x FWD-Transaxle 5 speed Manual

Transmission

Capacity: 728.000/year

Total investments: ~ 300 mil €



2009

April: SOP 6DCT250 RSA

May: SOP 6DCT250 Ford

Capacity: 437.000/year

(1.560/day)



2019

2<sup>nd</sup> Assembly Line 7DCT300

Capacity installed:

375.000/year (1.339/day)

## Modugno Division



2 transmission architectures

3 Customers

DAG/Mercedes, Ford, Renault/Nissan

Layout

Total: 110.011 m<sup>2</sup>

constructed area: 53.106 m² paved area: 48.627 m² green: 8.878 m²



Employees (June 2023)	
Direct	601
assembly	313
production	288
Indirect (backbone)	291
Trainees	6
Total	898

## **Building Aeroview**



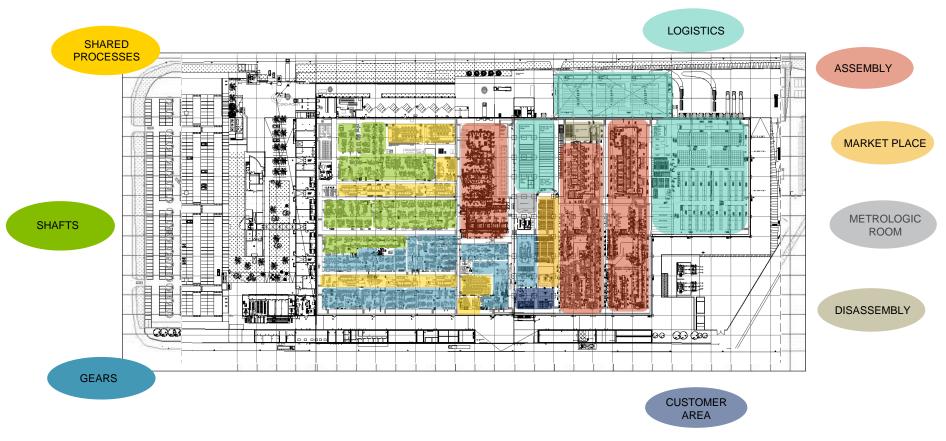


Production Hall

Assembly Hall

## Plant Layout





### Product Portfolio







6DCT250
Dual Clutch
Transaxle

8F-eDCT
Triple Clutch
P2 Hybrid
Transaxle

7DCT300 Dual Clutch Transaxle

















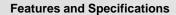




#### **Dual-Clutch Transmission**

#### 6DCT250 FWD Dual-Clutch Transmission

Dry dual-clutch transmission with demandcontrolled smart actuation and six gears for efficient automation of small-medium torque vehicles.



Max. torque: 280 NmWeight (incl. oil) 75 kgInstallation length: 380 mm

Gear ratio spread: up to 7.1



#### **Benefits**

- · Excellent shift comfort
- System is applicable from sporty to comfortable
- Electro-actuated Dry Clutch
- · Electro actuated shift system
- Excellent fuel efficiency performance

- Ready for start-stop and sailing without hardware change
- · Cost-optimized design
- Flexible production strategy

## 6DCT250 applications











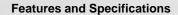




#### **Dual-Clutch Transmission**

## 7DCT300 FWD Dual-Clutch Transmission

Highly versatile wet dual-clutch transmission with demand-controlled smart actuation and seven gears for efficient automation of medium-torque vehicles.



Max. torque: 320 Nm
Weight (incl. oil) 70 / 71 kg
Installation length: 369 mm
Input shaft – differential: 188 mm
Overall ratio 1st gear: 13.7 - 18.6

• Gear ratio spread: up to 8.5



#### **Benefits**

- · Excellent shift comfort
- System is applicable from sporty to comfortable
- · Best-in-class efficiency
- Electro-hydraulic actuation with very low power consumption

- Ready for start-stop and sailing without hardware change
- · All-wheel drive application possible
- · Optional integrated cooling
- Ready for Mild-Hybrid

## 7DCT300 applications























#### **Triple-Clutch Transmission**

## 8F-eDCT Triple Clutch P2 Hybrid Transmission

Highly efficient 8-speed 48V 2WD/AWD hybrid transmission with P2 architecture and triple clutch to allow full decoupling of combustion engine.



#### **Features and Specifications**

Max. torque: 390Nm

Weight (incl. oil) appr. 114kg 2WD

appr. 126kg AWD

Installation length: 375,4mm

Overall ratio 1st gear: 15.9 - 17.6
Gear ratio spread: up to 8.8

E-Motor: 48V, 25kW, 83Nm

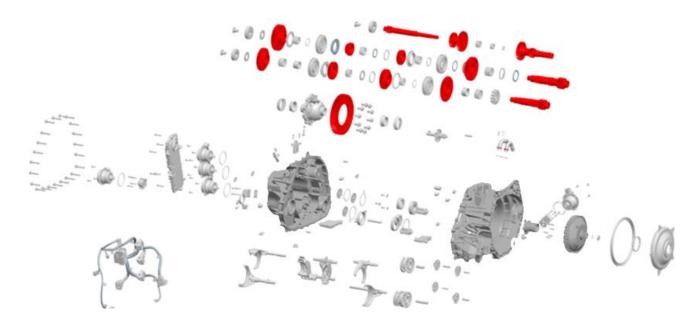
#### **Benefits**

- · fully-fledged P2 hybrid architecture
- · integrated 48V E-Motor and Inverter
- · Excellent shift comfort
- · System is applicable from sporty to comfortable
- AWD capability

- Hydraulic-actuated triple Clutch
- · Hydraulic-actuated shift system
- Excellent fuel efficiency due to combustion engine decoupling capability
- · Cost-optimized design
- Flexible production strategy

## Technologies





#### Gears & Shafts

Soft Turning Hobbing Shaping Pointing Spline rolling Laser Welding Vacuum Carburizing Quenching Straightening Hard Turning Grinding Superfinishing Tooth grinding Power honing

#### Gearbox

Assembly Line 100% EOL Testing

## Quality, Health, Safety Environment, SR, IT



#### Certification of the Management System according to:

- ISO 14001 : 2015
- ISO 45001
- **FMAS**
- IQ Net SR 10
- IATF 16949
- **ASI** Certification
- **TISAX Certification**

#### External Recognitions:

- FORD: Q1 Award
- MBAG: Supplier Status "A"
- Renault: Supplier Status "H1"
- Italian National Safety Award 2014
- Italy's Best Employer 2021-2022-2023-2024
- Prize "Sustainability Award 2023-2024"





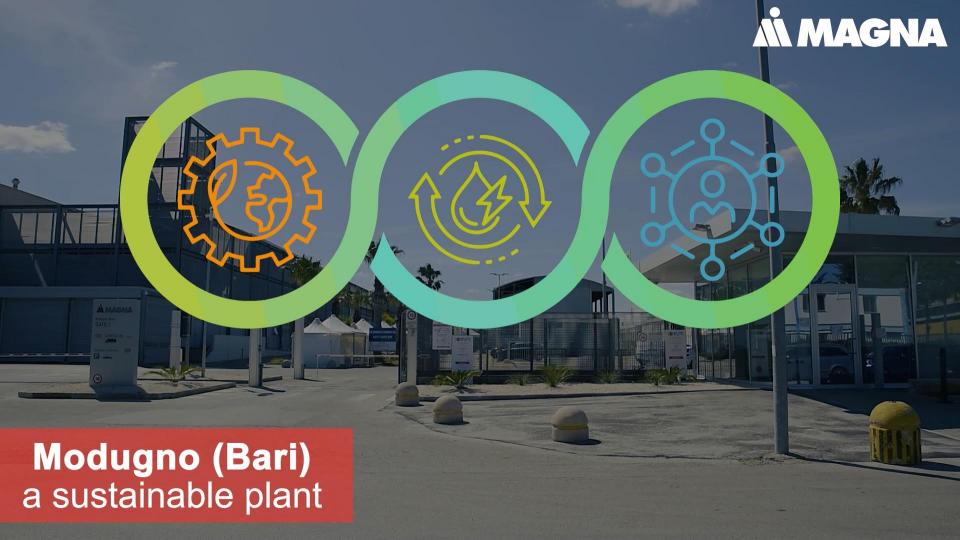


ITALY'S

2024

statista 5

A MAGNA



# WINNER "Product" Category

**COMMITMENT TO** 

SÚŠTAINABILITY 2022 AWARD

## POWERTRAIN, MODUGNO, ITALY REMANUFACTURING OF TRANSMISSIONS (#4796)

The task at hand

Remanufacturing transmissions that were sent to recycling to turn into to salable and recovering greatest number of components. Saving 9,600 Kg of Aluminium, 15,000 Kg of steel, and 300Kg of electronic parts

**Category** 

PRODUCT

The team that made it happen

The result of teamwork involving several colleagues from the BAA, BCS, BLS, BQS, BRE departments

How can others implement this idea?

Rethink every waste stream! Can an item being recycled be repurposed? Re-salvaged and reused?

# Magna Powertrain Leadership ALMAGNA

#### MAGNA POWERTRAIN

Diba Ilunga, President

#### **CORE DRIVE**

Sandro Morandini, Sr. VP

#### **NEXT DRIVE**

Juergen Schranz, Sr. VP

#### **GLOBAL ENGINEERING**

Andreas Docter, Sr. VP

#### CORPORATE FUNCTIONS

- Business Development James Tobin Jr., VP
- Corporate Development & Alliances and Managing Director Asia – Yi Wang, VP (interim)
- Finance & Information Security Mike Bacci, VP
- · Human Resources Richard Piller, VP
- Information Technology Mashfique Haque, VP

- Legal David Mimms, VP & General Counsel
- Operational Excellence Martin Kiessner-Schatz, VP
- Purchasing Mark Brennan, VP
- Sales & Marketing/Communications Bill Wardle, VP

## **Core Drive Product Portfolio**





## Connessione di dispositivi





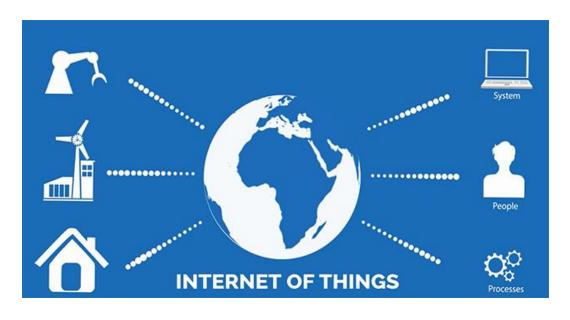
## Vantaggi:

- Monitoraggio in tempo reale
- Ottimizzazione delle prestazioni
- Riduzione dei tempi di fermo macchina
- Maggiore efficienza
- Riduzione dei costi
- Miglioramento della qualità
- Riduzione carta

## Internet delle Cose (IoT)



#### Ruolo dell'IoT nella connettività industriale:



- Sensori intelligenti
- Tracciamento dei prodotti
- Manutenzione predittiva

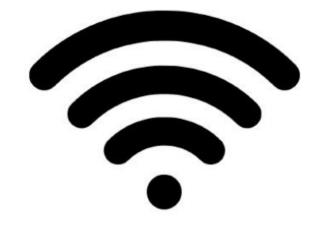
## Reti di comunicazione



Tecnologie di rete utilizzate nell'Industria 4.0:

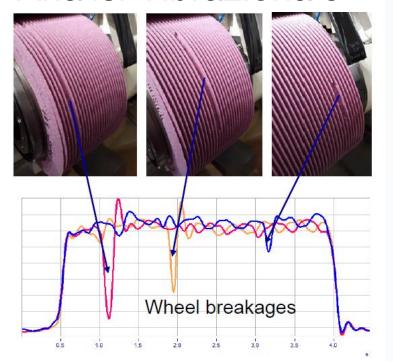
- Ethernet
- Wi-Fi
- 5G







## Analisi Vibrazionale





Un set di Sensori Vibrazionali Monitoraggio in tempo reale dello stato qualitativo della lavorazione su machine di rettifica denti

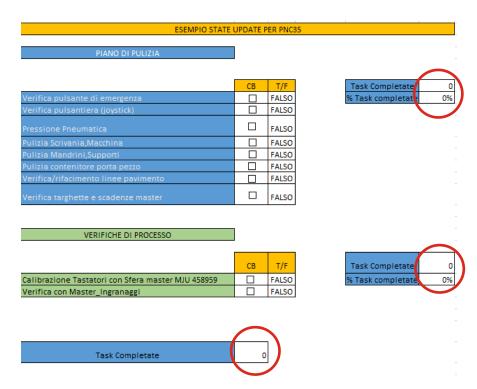
Sensore di vibrazione montato sulla Reishauer



#### Esempio di risultato progetto di stage







## Creazione di rete: i seminari dell'ITS







