



# ADVANCING AUTOMATION

Customized Adhesive Solutions

# INCREASING EFFICIENCY

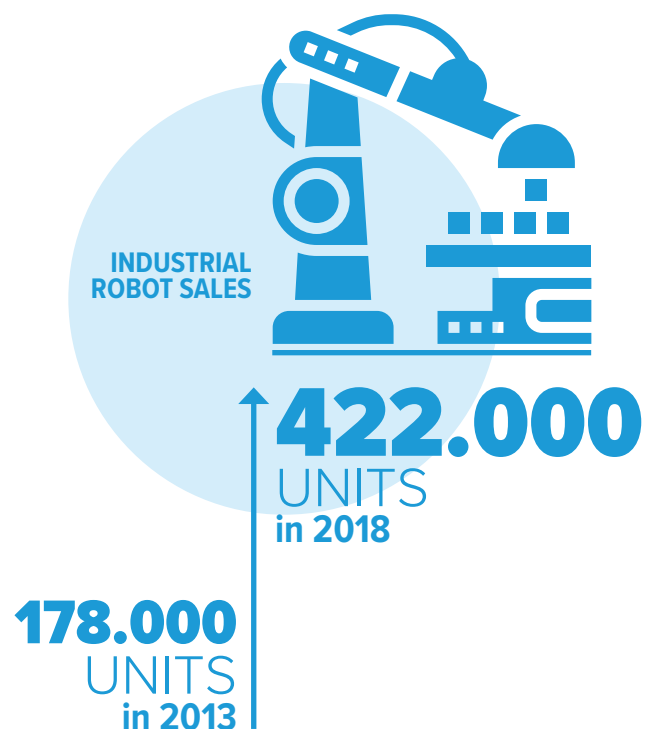
## Double-Sided Tapes Facilitate the Rapid Evolution of Manufacturing

Customized adhesive solutions provide the flexibility, security, and repeatability that fast-moving industries rely on.

Automation has been a megatrend in industrial production for a while now: Industrial robot sales increased from 178.000 units in 2013 to 422.000 in 2018 according to the International Federation of Robotics and we are still only at the beginning.

The rapid advances in artificial intelligence and robotics in particular will allow for further leaps in development and significant increases in efficiency, but automation means much more than using machines instead of manual labor to perform repetitive operations. The factory of the future will be low maintenance, highly connected, and will facilitate better human to robot collaboration.

In this constantly evolving environment, customized adhesive solutions play an important role. Mechanical connections such as screws, rivets, and welding seams are increasingly replaced by double-sided adhesive tapes. They can be applied more easily, are more flexible, promote weight reduction, and compensate for dissimilar and irregular materials. In many processes, pressure sensitive adhesives are already the better solution.



# KEY DRIVERS OF AUTOMATION

## Automation Delivers the Excellent Quality Customers Demand

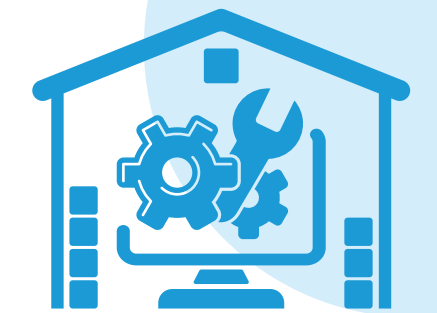
One of the key drivers of automation is customer demand. When new products like smartphones are developed, manufacturing processes have to be up and running in a very short time frame. They must deliver an extremely high output and an excellent, reliable quality.

Double-sided adhesive tapes are an ideal bonding solution in this context because they require no curing time and can be efficiently integrated into fast moving processes. Tapes can be tailor-made for different applications and combinations of materials, all while meeting the demand for improved safety.

Safety is another important driver of automation. In contrast to solvent based liquid glues, tapes are safer for the individuals monitoring the machines, because they are often produced without solvents and consequently do not emit harmful vapors. In addition, tapes are often accompanied by dispensers that provide semi or fully automatic tape dispensing solutions. These dispensers support existing automation processes and improve ergonomics. By enhancing existing processes with adhesive and dispensing solutions, unhealthy and monotonous production steps can be significantly reduced.

## KEY DRIVERS FOR AUTOMATION IN MANUFACTURING:

- Consumer demands
- Enhanced quality
- Safety



# EARLY ADOPTERS OF AUTOMATION

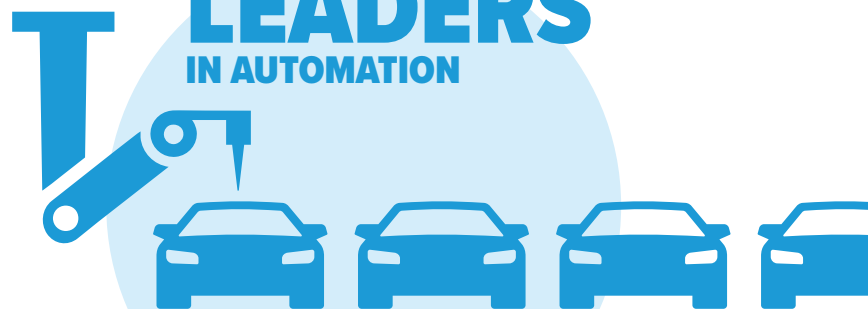
## Automotive and Transportation Industries Lead the Way

Car manufacturers have been early and heavy adopters of industrial robots, and the automotive and transportation industries continue to lead the way in automation.

According to a McKinsey study, automotive manufacturers “are under continuous pressure to reduce costs, improve fuel efficiency, reduce emissions, and become more capital-efficient. [...] In 2030, the share of electrified vehicles could range from 10% to 50% of new-vehicle sales. [...] 15% of new cars sold in 2030 could be fully autonomous.”

These disruptive trends facilitate the introduction of revolutionary technologies. Currently, tapes can be found in nearly every automotive system, from the wire harnessing to mirror assembly – tapes provide the security and repeatability that fast-moving industries rely on.

AUTOMOTIVE  
& TRANSPORTATION  
INDUSTRIES **ARE**  
**LEADERS**  
IN AUTOMATION

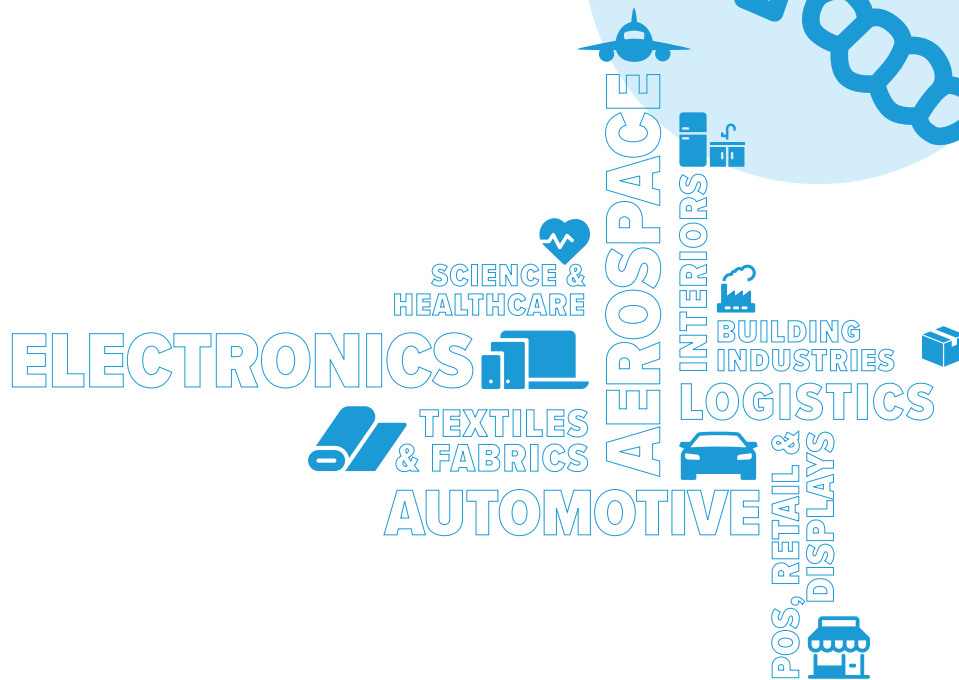


# tesa IS AN EXPERIENCED PARTNER

## We Have Been Working with Leading Manufacturers for Decades

Advanced adhesive solutions are a key technology for automation. Companies that successfully reap the benefits of automation realize that talent, data and process change is not enough – the right partners and supplemental products are key components. At tesa, we support a wide range of industries and provide clients with value added products and solutions. We also work closely with machine manufacturers to support the latest trends and market demands. From conceptualization to machine commissioning we work alongside our partners to ensure our adhesive tapes and system solutions are successfully integrated. The experiences we have gained through these collaborations give us a competitive advantage when supporting and implementing automation processes.

**WE ARE A  
STRONG PARTNER WITH  
EXPERIENCE IN MANY  
INDUSTRIES**



# REALIZE YOUR AUTOMATION PROJECT

## Achieve Superior Results with Double-Sided Adhesive Tapes

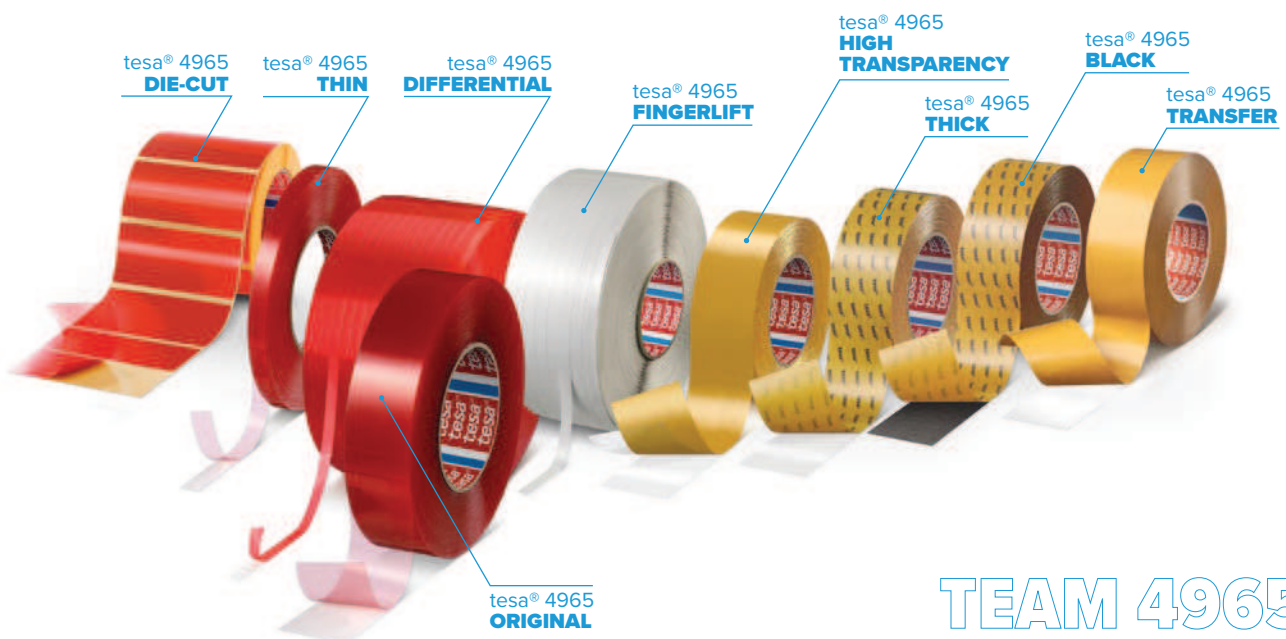
The production processes of the future are characterized by an increasing demand for customization. “The growing global competition demands smart production systems [that] can be adapted quickly and thus also serve the ever-increasing demand for model diversity“ says industrial robot manufacturer KUKA.

Double-sided tapes are an ideal solution to help meet these challenges. Our double-sided film tape assortment is extremely versatile, can quickly be adapted to new processes, and offers high quality, reliable bonding. The tesa® 4965 assortment consists of nine double-sided tapes that share a special patented adhesive formulation.

With our expertise and products you will benefit from several different solutions such as long length spools, die-cuts, or

tapes for optical detection. Our long length spools, i.e. tesa 4965® Differential and 4965® Fingerlift, reduce changeover times and support line speeds of 300 m/min (for roll-to-roll production processes). We also have a proven track record with die-cuts to support automatic pick and place processes. Even in the most demanding requirements, we support you in finding the most optimal solution. For example, our optical detection tape for automatic splicing offers practical automation advantages that come with decades of trust and experience.

Would you like to know how you can benefit from our adhesive tape and automatic dispensing systems? Just give us a call. We are looking forward to developing the perfect solution with you!



## TEAM 4965



Interested? Get in touch!

**WE ARE HAPPY  
TO ANSWER ALL YOUR  
QUESTIONS ABOUT  
TEAM 4965.**



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