

**TESA**

**EINSATZGEBIETE**

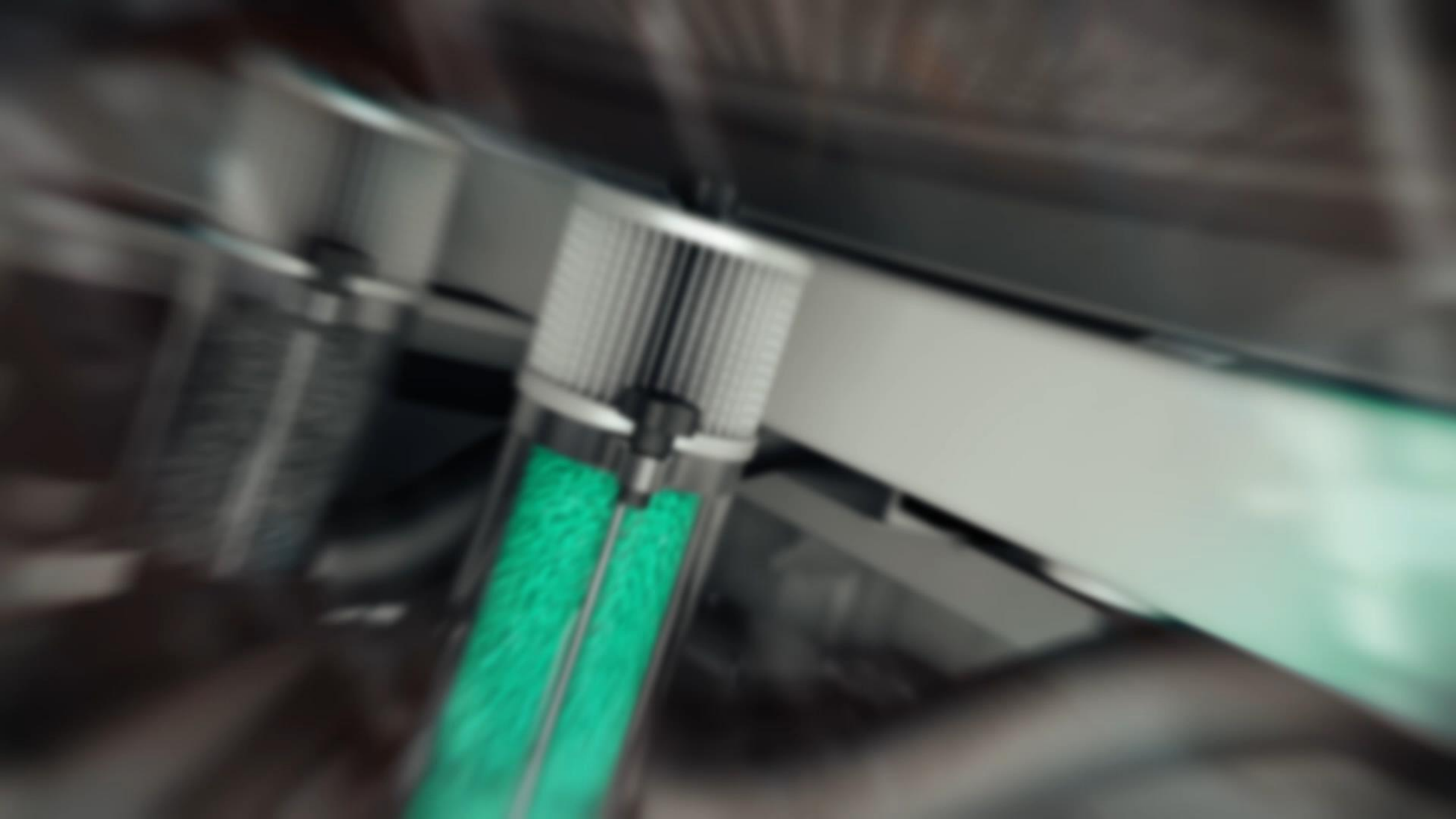
**APPLICATIONS**

**ADDITIVE  
MANUFACTURING**

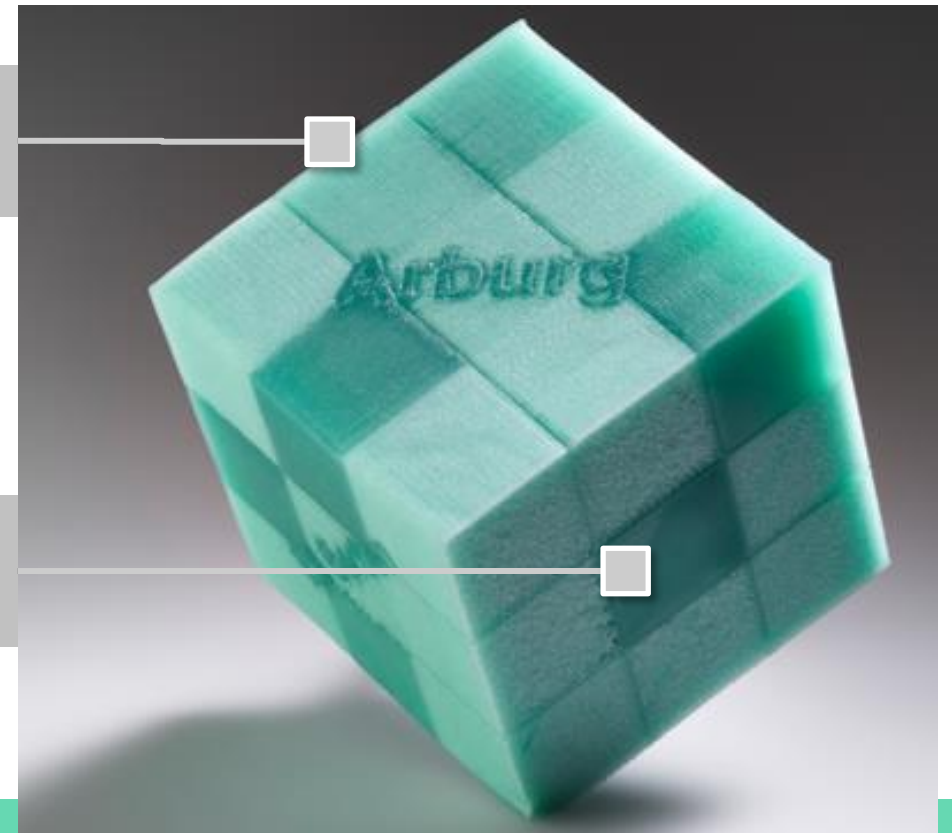
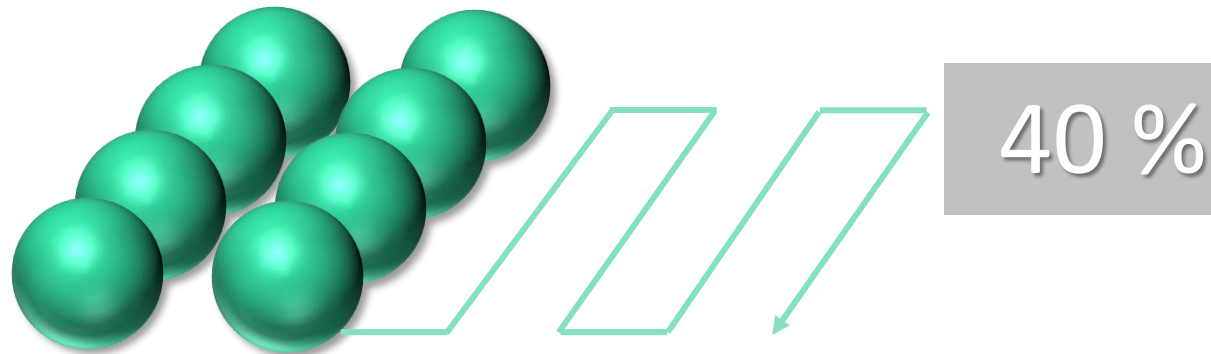
**TIME TO MARKET**

**THINK ADDITIVE**



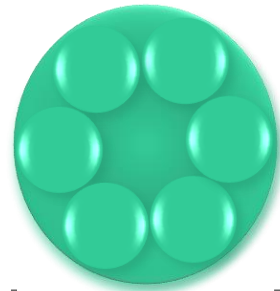


# Exakter Tropfenaustrag | Precise droplet discharge





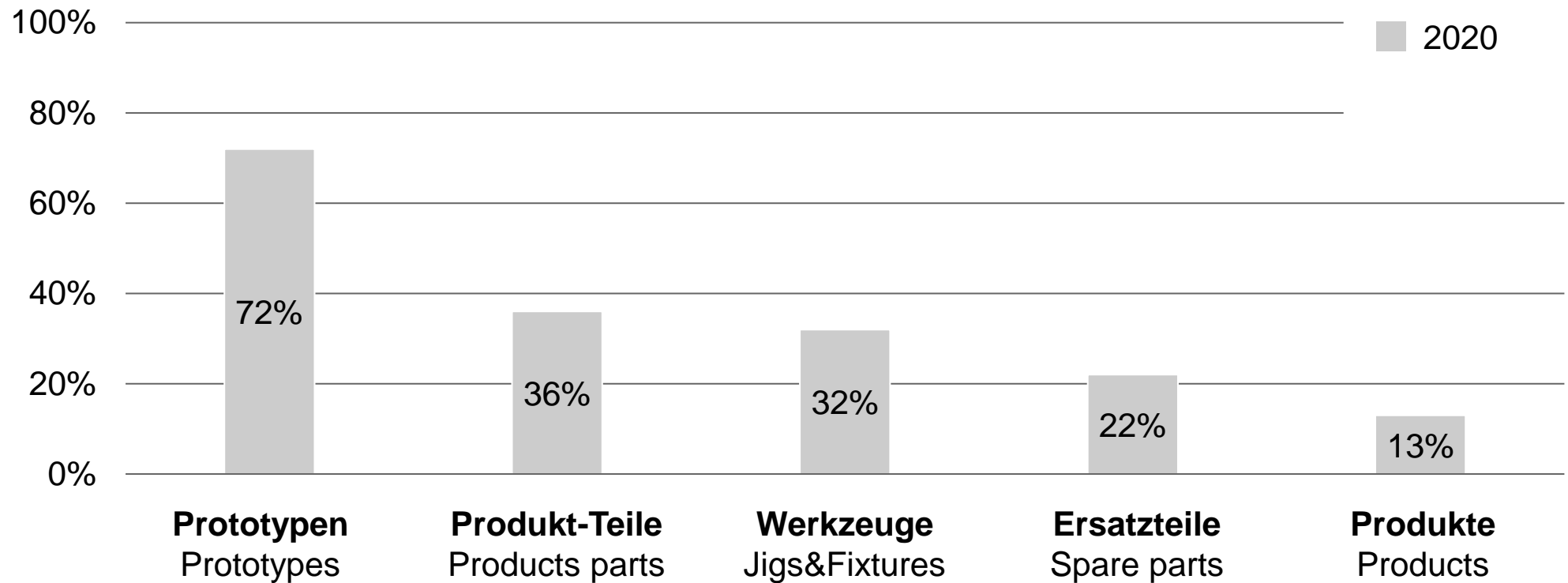
# Kleine Voxel-Größe | Small voxel size



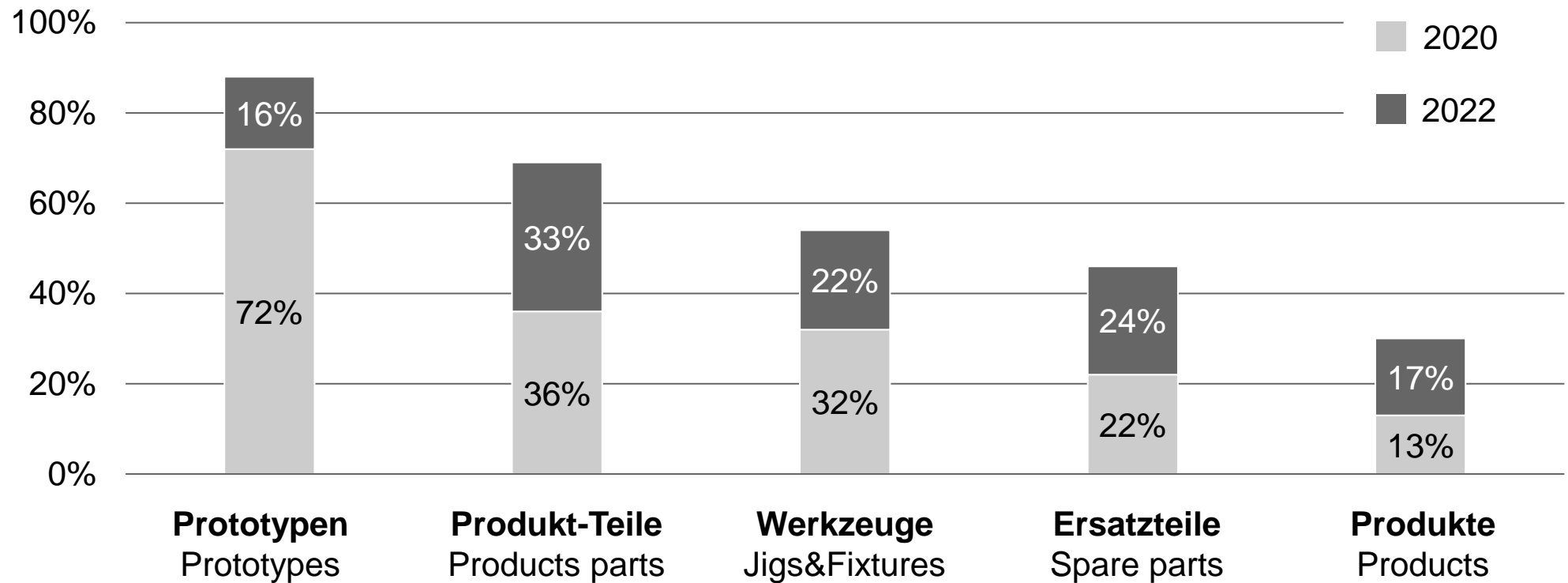
0,6 mm



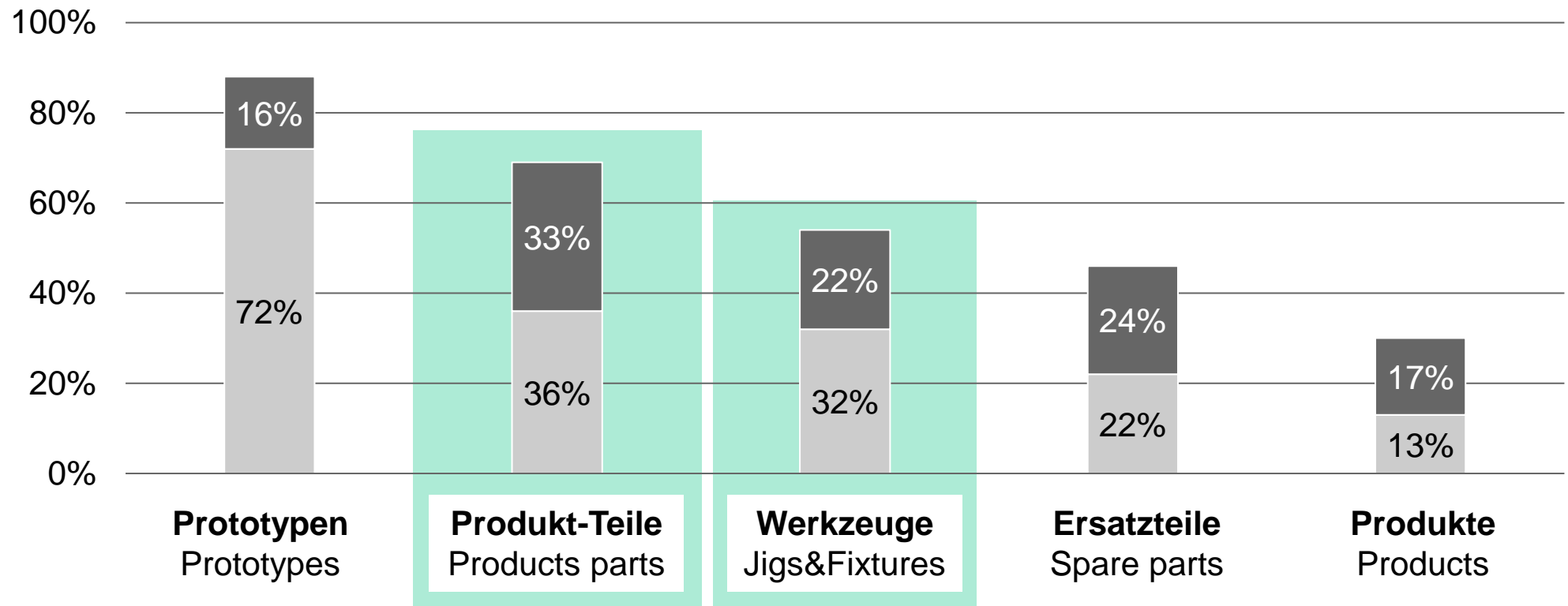
# Einsatzgebiete | Applications



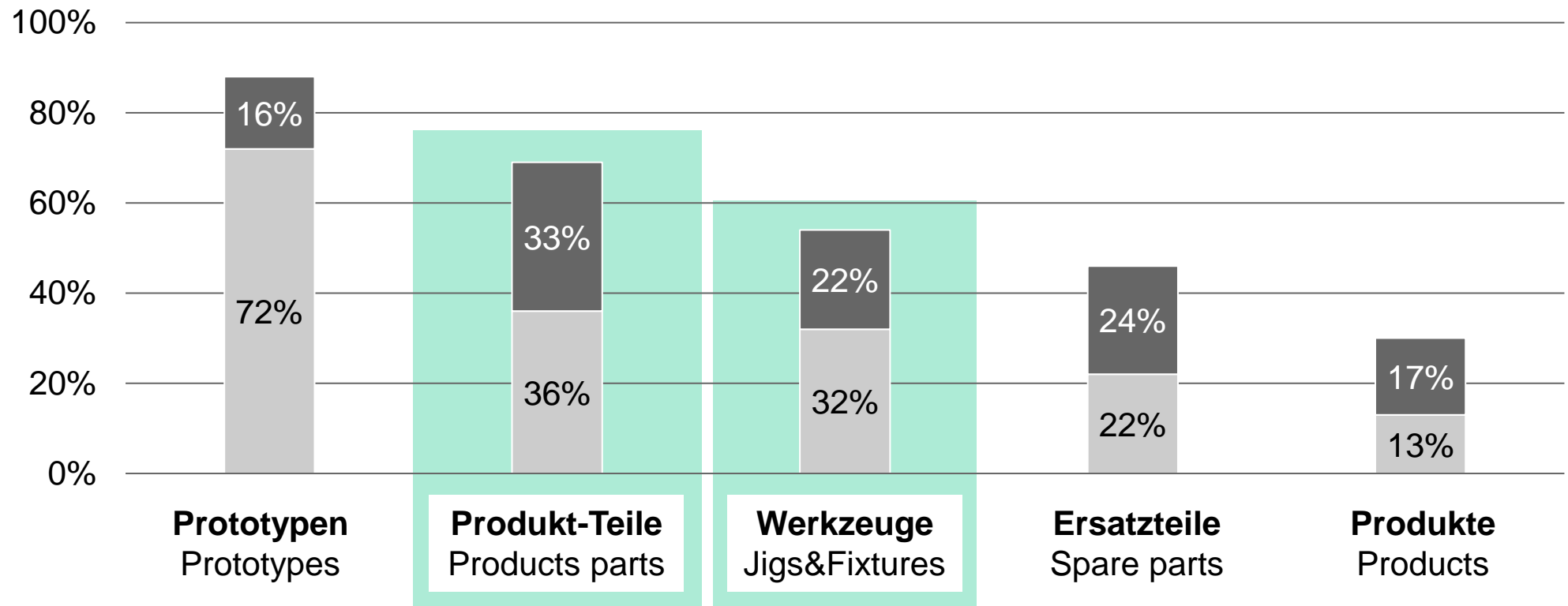
# Einsatzgebiete | Applications



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# Einsatzgebiete | Applications





**TRENDS**

**APPLICATIONS**

**EINSATZGEBIETE**

# **ADDITIVE MANUFACTURING**

**TIME TO MARKET**

**THINK ADDITIVE**



**41**

**Tage zur  
Serie**

**Days to mass  
production**





**41**

**Tage zur  
Serie**

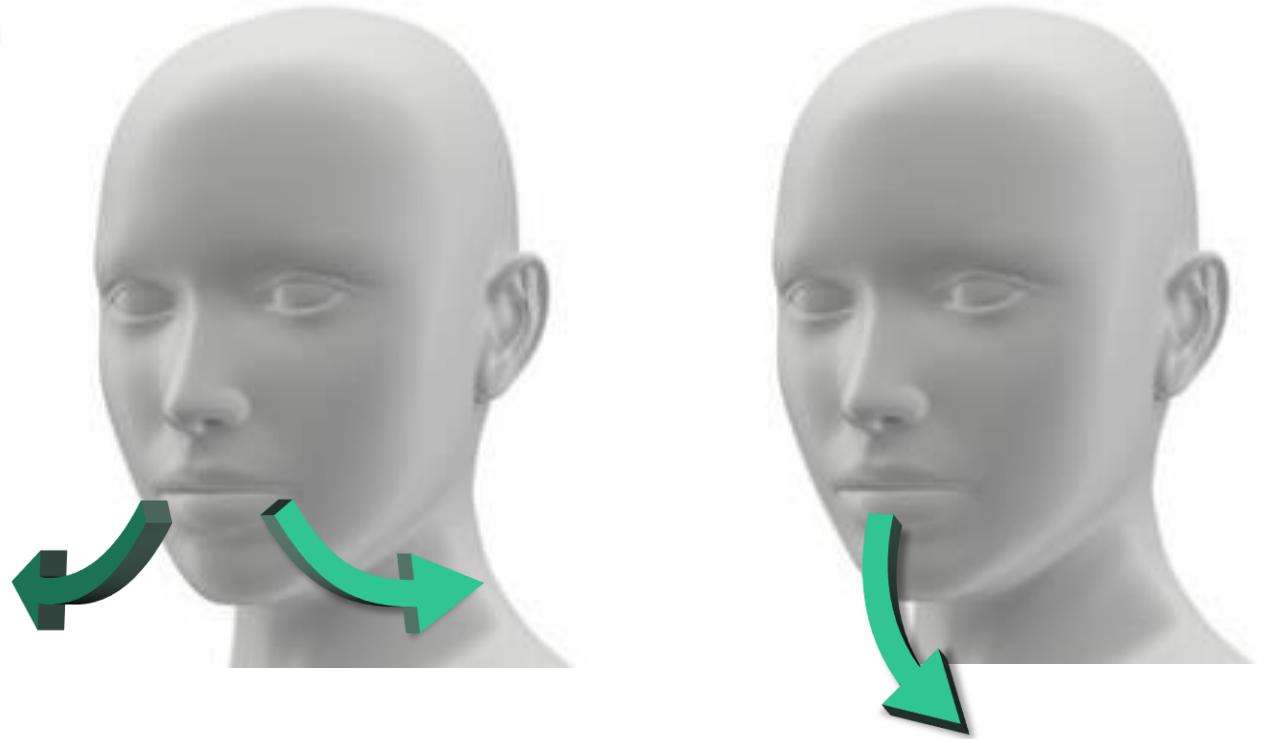
**Days to mass  
production**



# Erste Idee | Initial idea



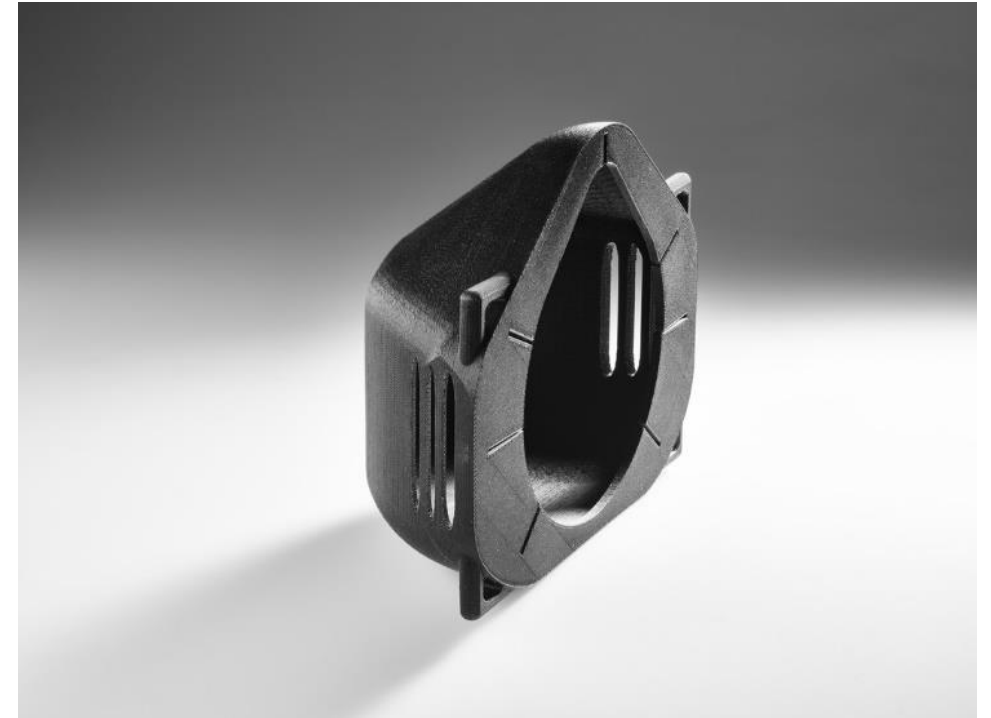
**Ausgeatmete Luft umleiten**  
Redirect exhaled air



# Erster Prototyp | First Prototype



**TPU Elastollan Shore 70A**

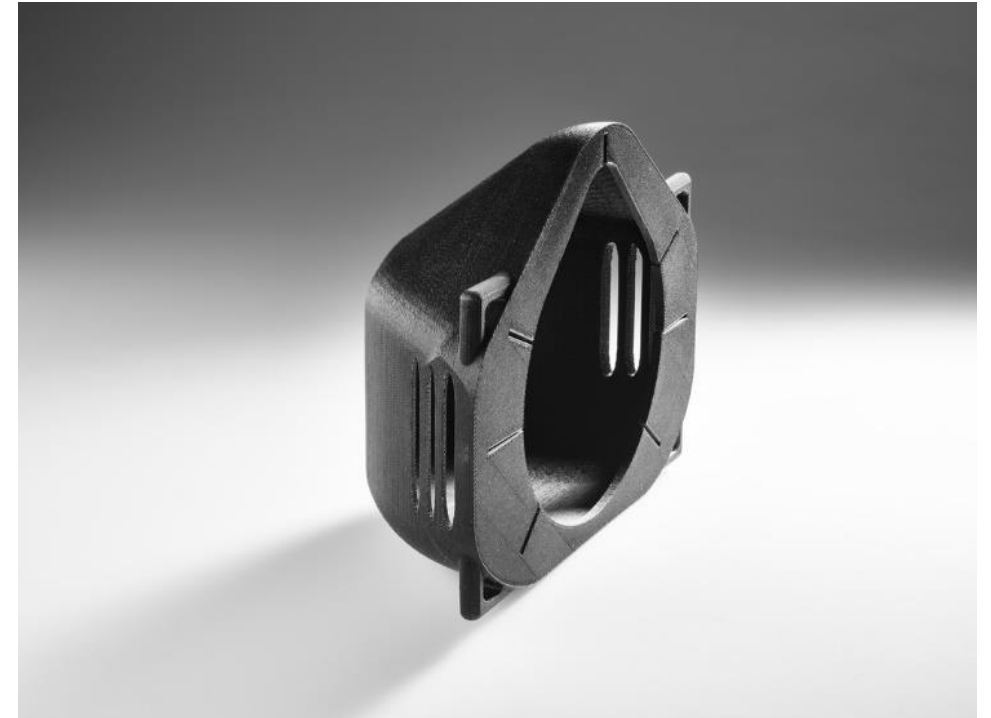




# Erster Prototyp | First Prototype



**TPU Elastollan Shore 70A**



# Weiterdenken | Thinking ahead

**26**

March, 2020

LSR Maske  
LSR Mask

**1****3**

Filter

**2**

Halter mit Ausströmer  
Holder with flow gate

# Weiterdenken | Thinking ahead

**26**

March, 2020

LSR Maske  
LSR Mask

**1****3**

Filter

**2**

Halter mit Ausströmer  
Holder with flow gate

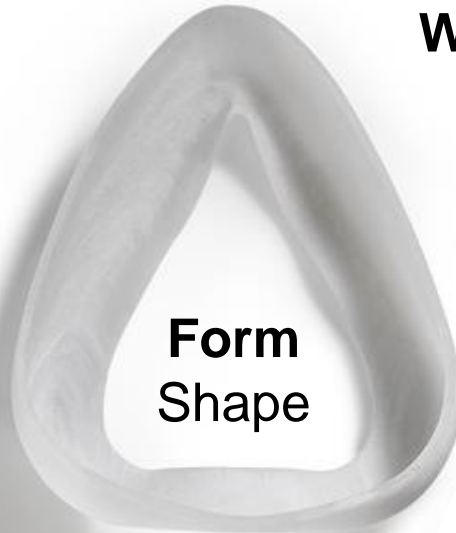


# **1 Prototyping Design**

**Größe**  
Size



**Form**  
Shape



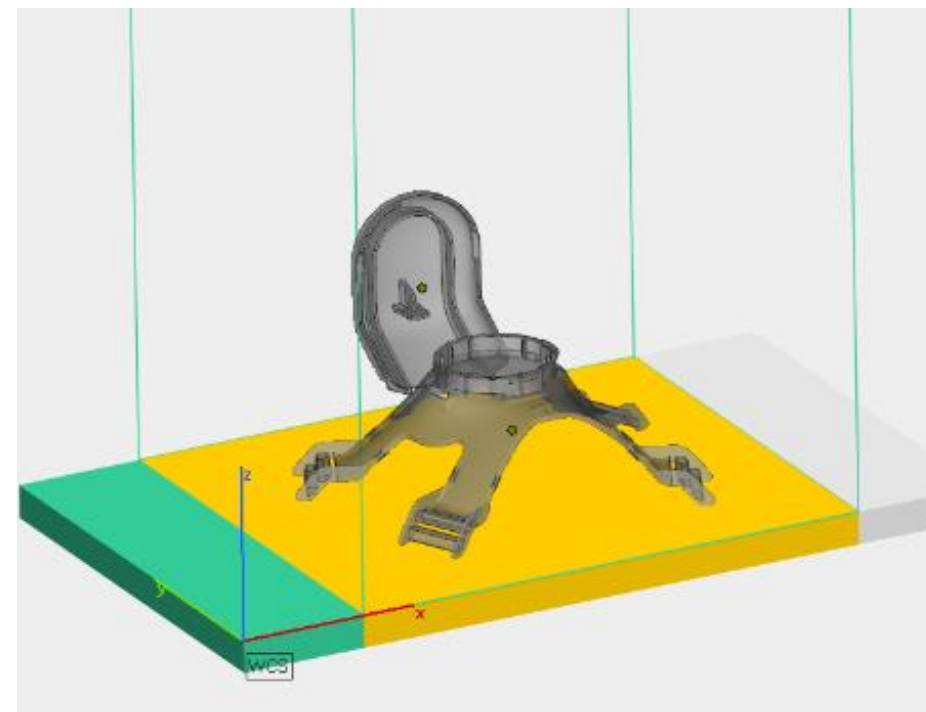
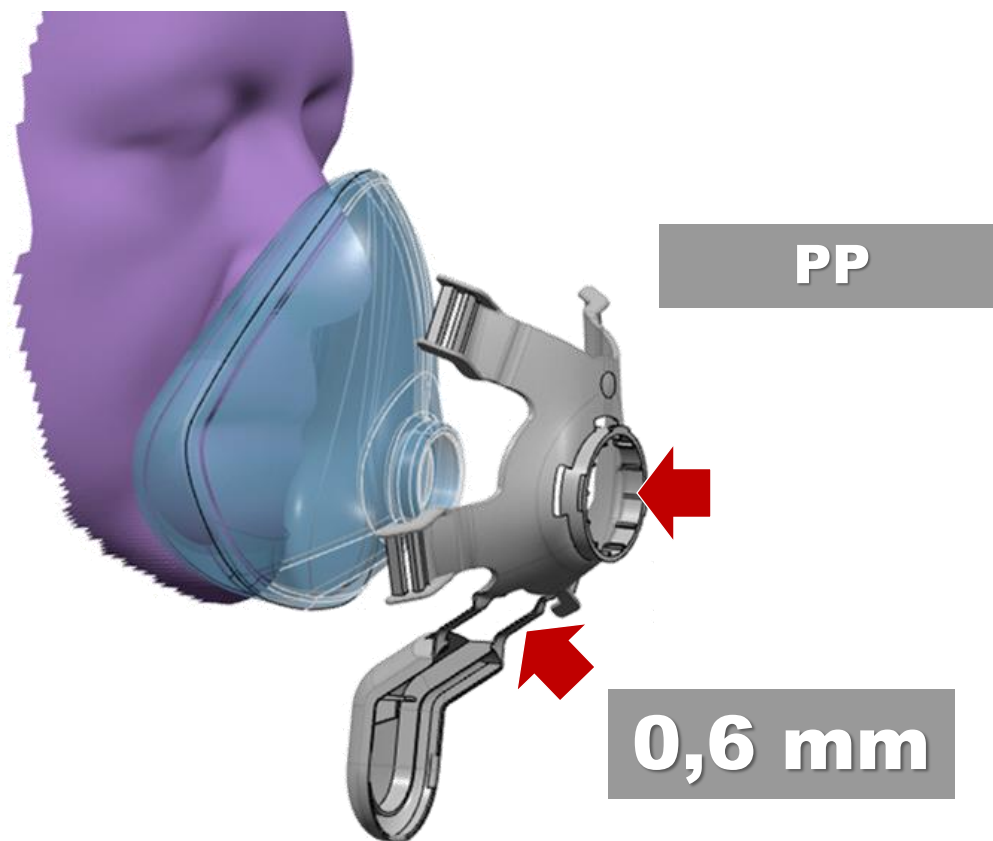
**Weichegrad**  
Softness



**Multi-Material**

**TPE Shore 30 (medical grade)**

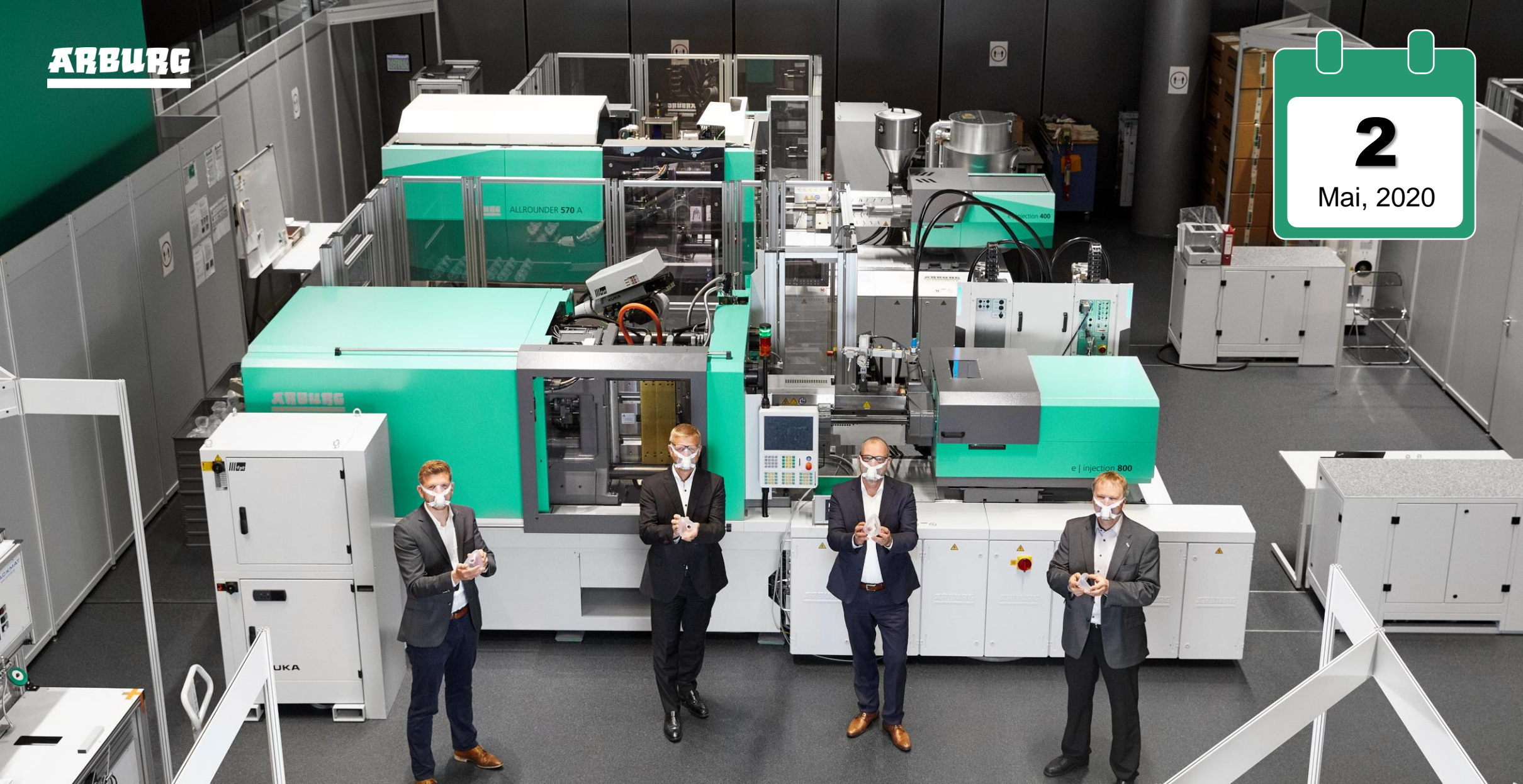
## 2 Prototyping Funktion | Function





# 3 Prototyping Design







**TRENDS**

**APPLICATIONS**

**EINSATZGEBIETE**

# **ADDITIVE MANUFACTURING**

**TIME TO MARKET**

**THINK ADDITIVE**

**TRENDS**

**APPLICATIONS**

**EINSATZGEBIETE**

# **ADDITIVE MANUFACTURING**

**TIME TO MARKET**

**THINK ADDITIVE**

# Denkfabrik AM | Thinktank AM

Substitution

Optimierung | Optimisation

Individualisierung | Individualisation

Innovation





**ARBURG**

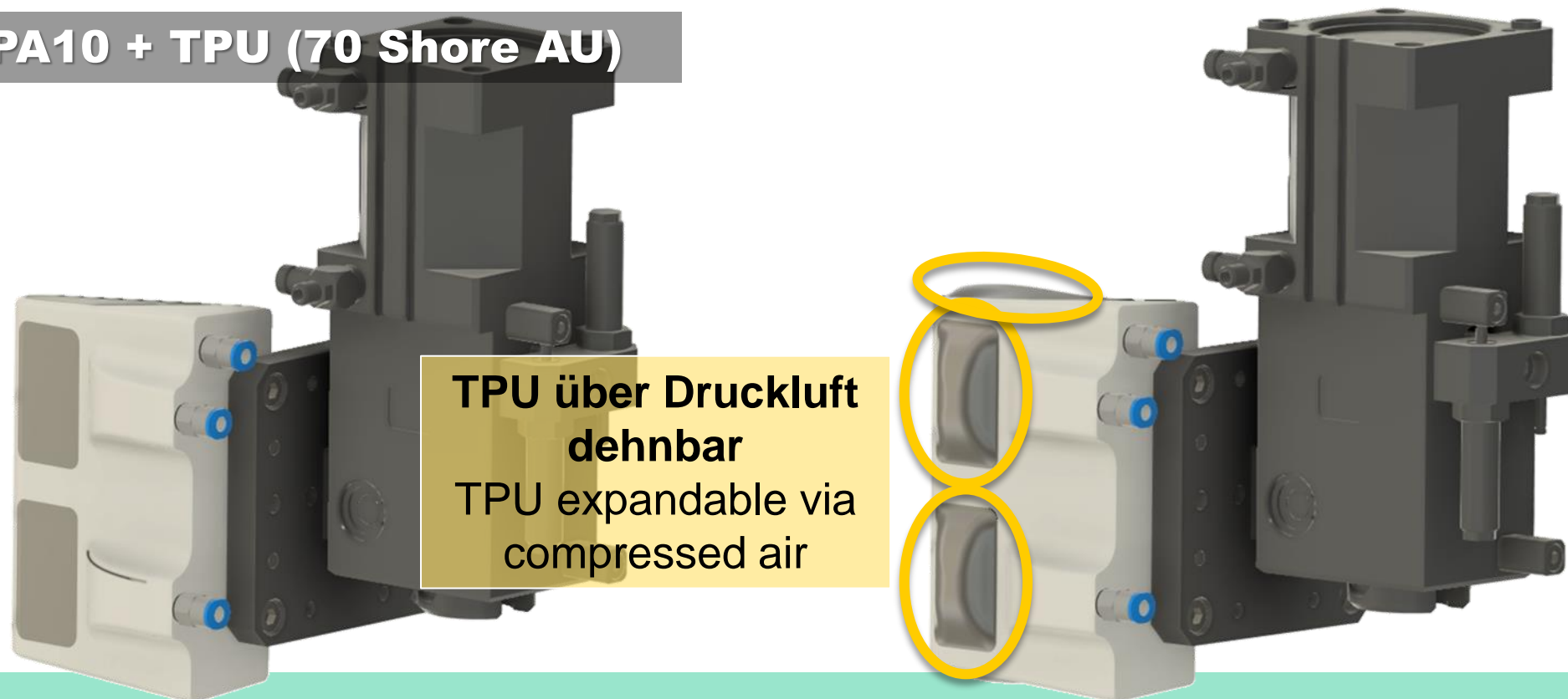


**ARBURG**



# Beispiel 2K-Greifer | Example 2-component gripper

**PA10 + TPU (70 Shore AU)**





# Beispiel 2K-Greifer | Example 2-component gripper



**ARBURG**

**THINK  
ADDITIVE**





tesa.  
Holding the world together.

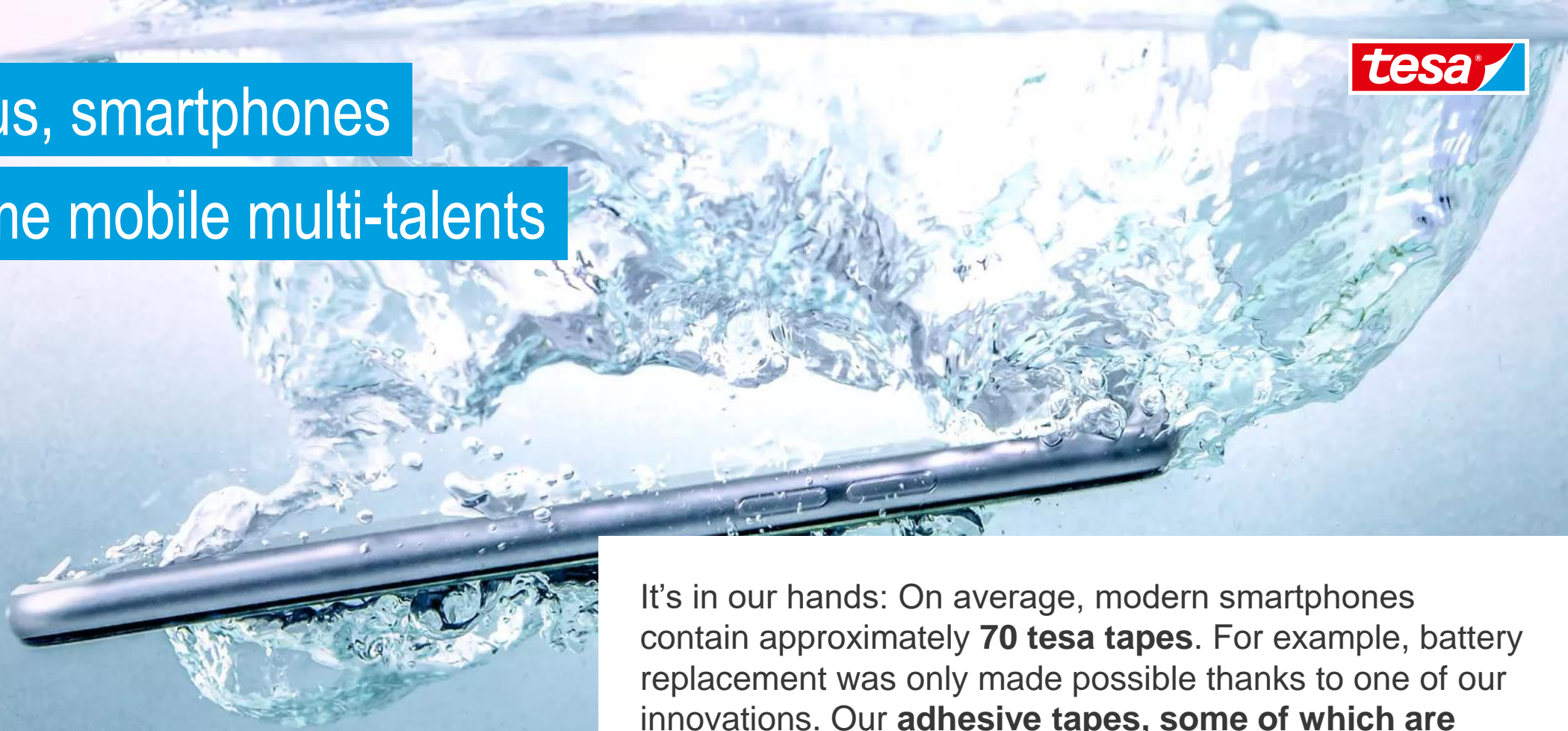
3D Tage Nord – Additive Manufacturing @tesa

“We create adhesive solutions  
that improve the work,  
products and lives of our  
customers.”

Our mission

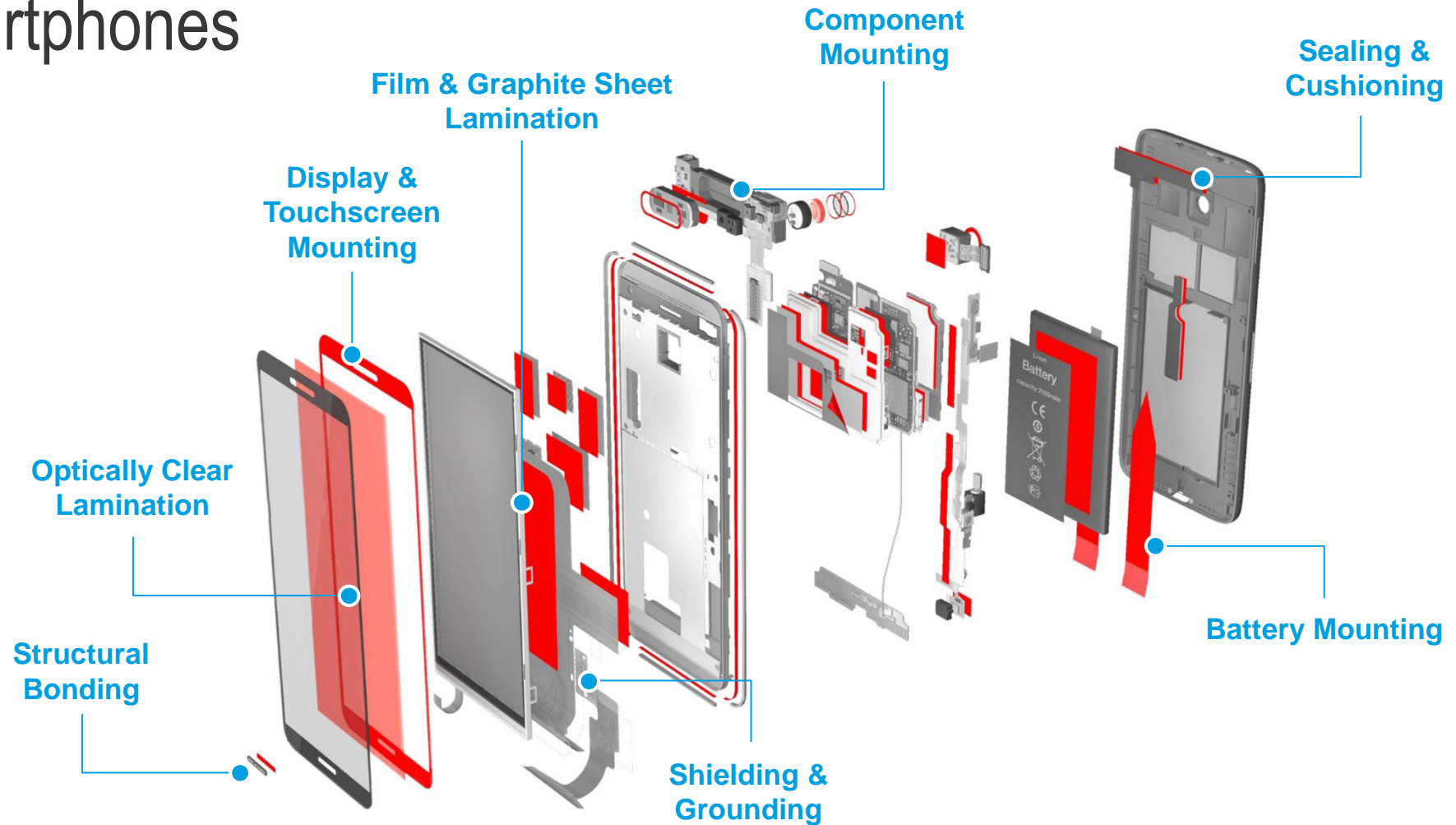


# With us, smartphones become mobile multi-talents

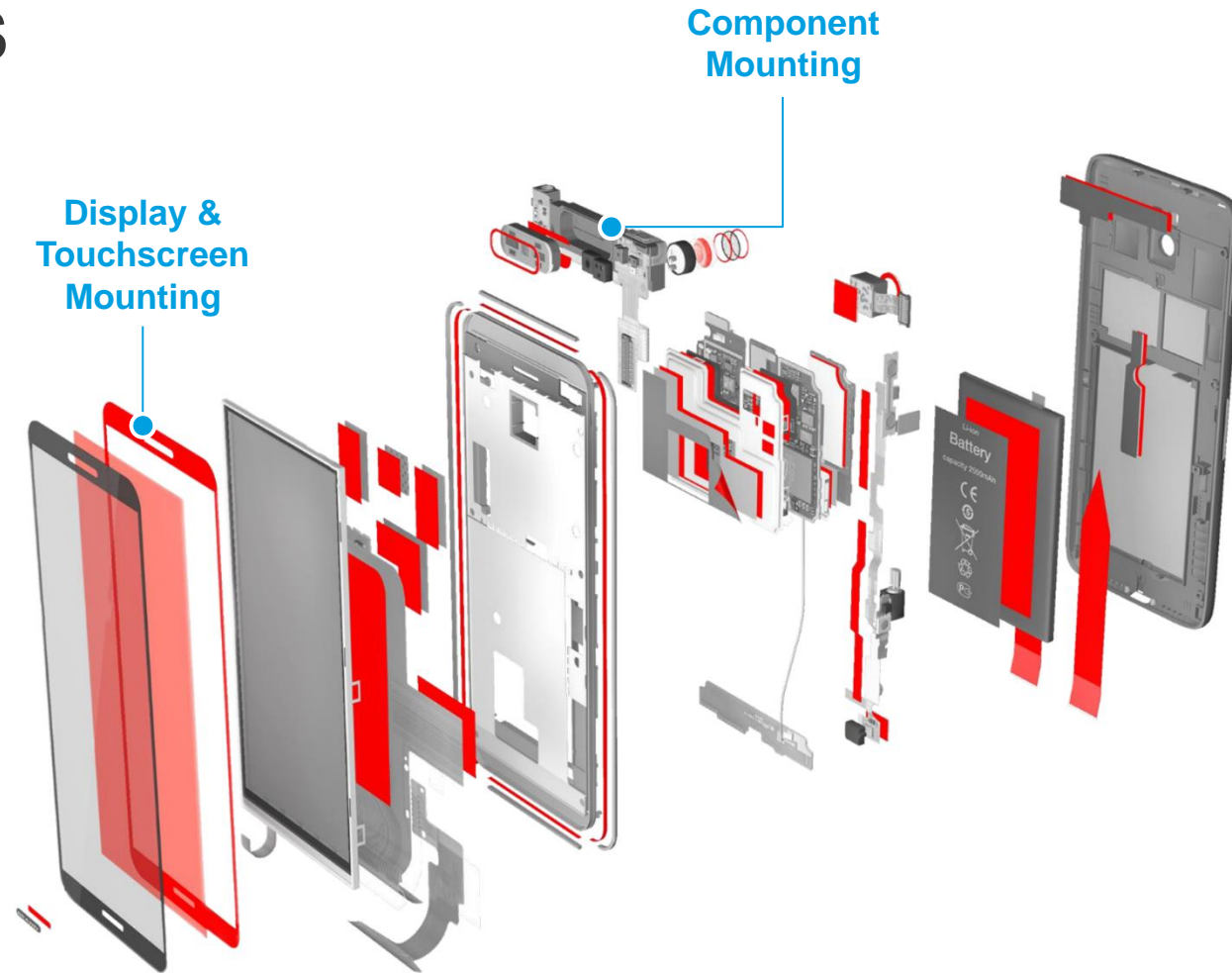


It's in our hands: On average, modern smartphones contain approximately **70 tesa tapes**. For example, battery replacement was only made possible thanks to one of our innovations. Our **adhesive tapes, some of which are extremely thin, are true all-rounders** and take on **additional functions** that go far beyond simply bonding components.

# Our solutions for smartphones

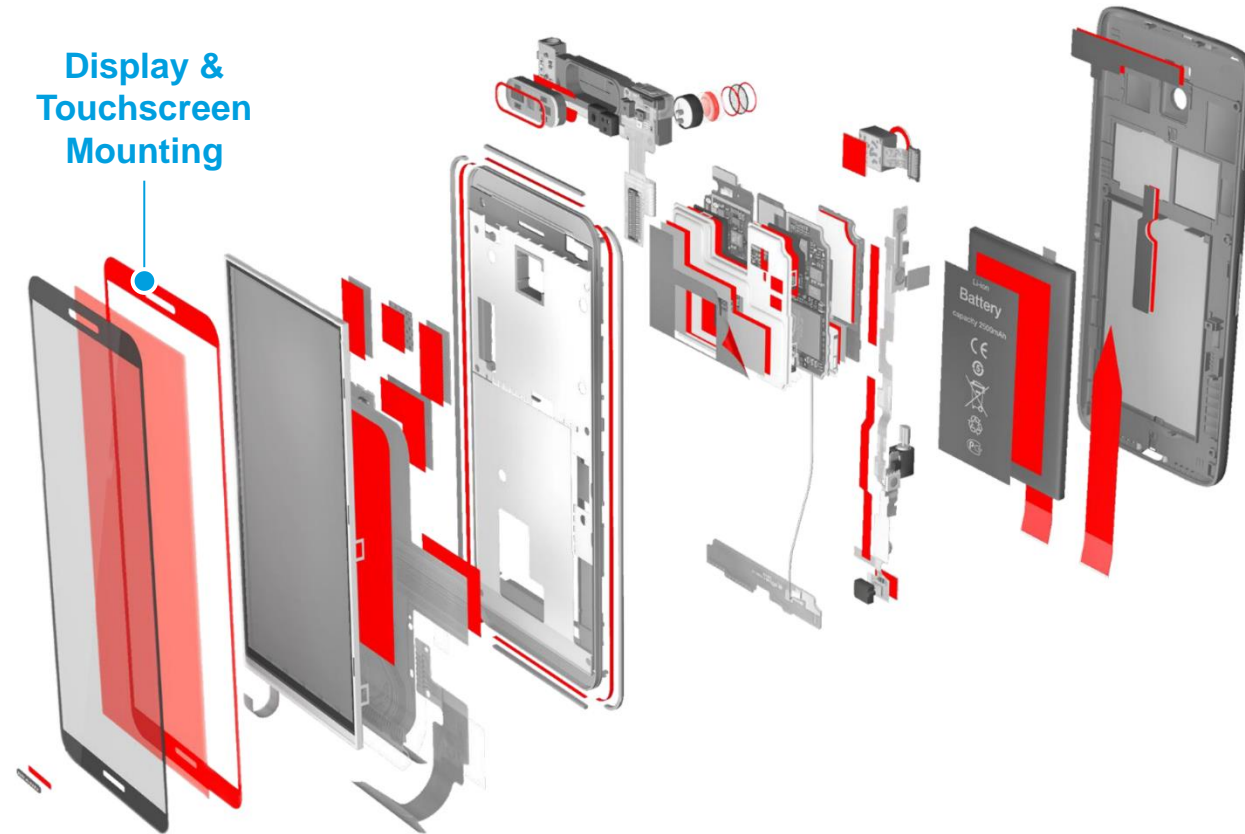


# Our solutions for smartphones

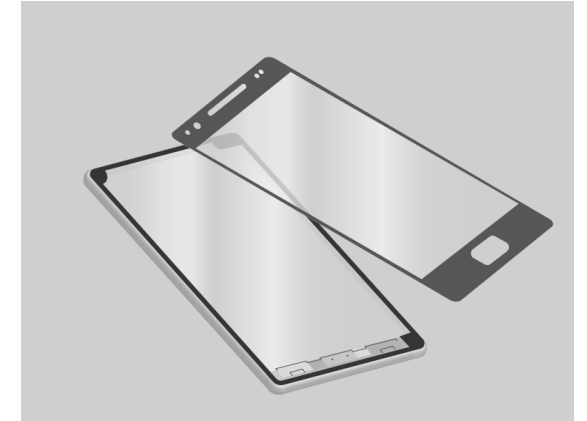
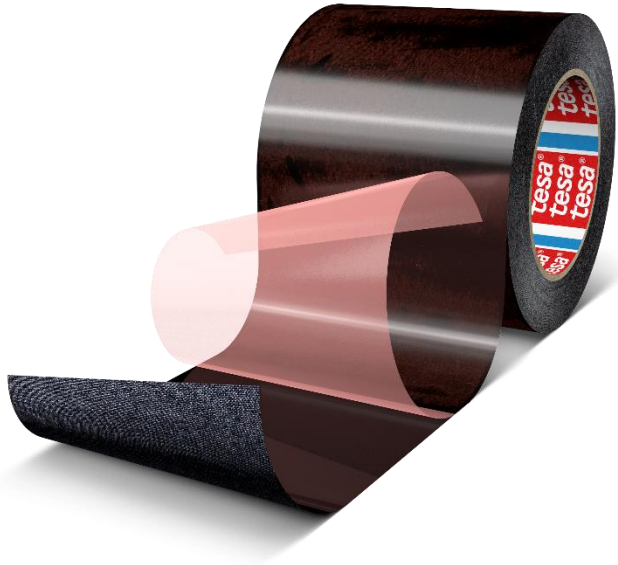




# Our solutions for smartphones

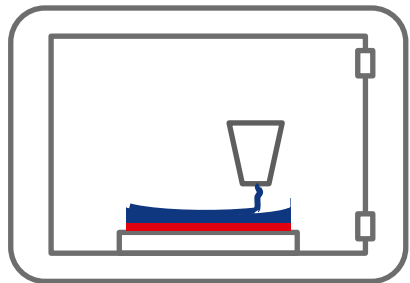
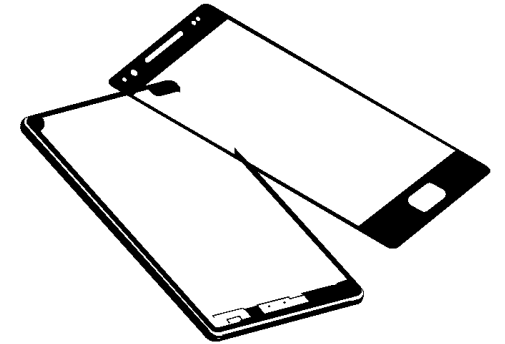
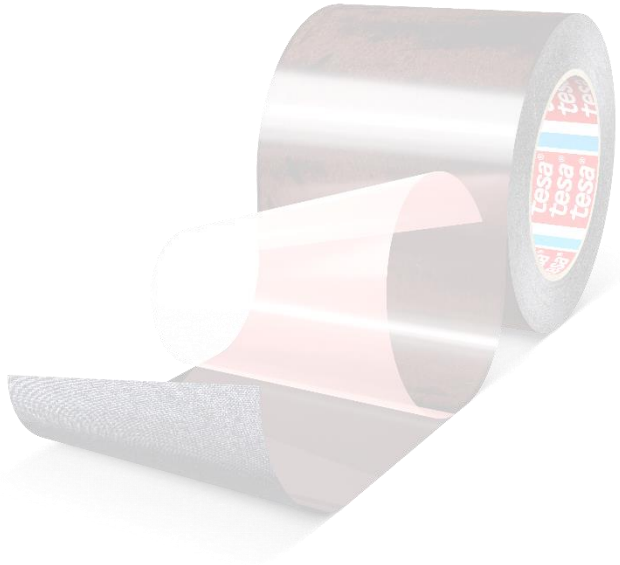


# WHY SHOULD WE PRINT THAT FRAME?

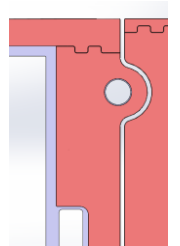


Only a few percent of material gets used...

# WHY SHOULD YOU PRINT THAT FRAME?

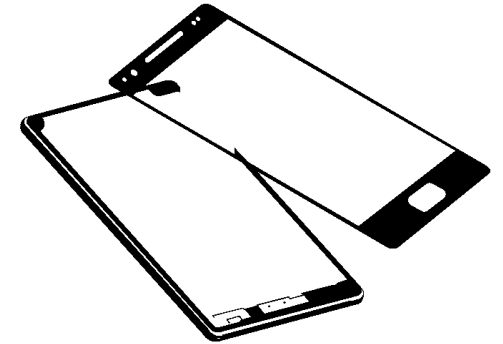
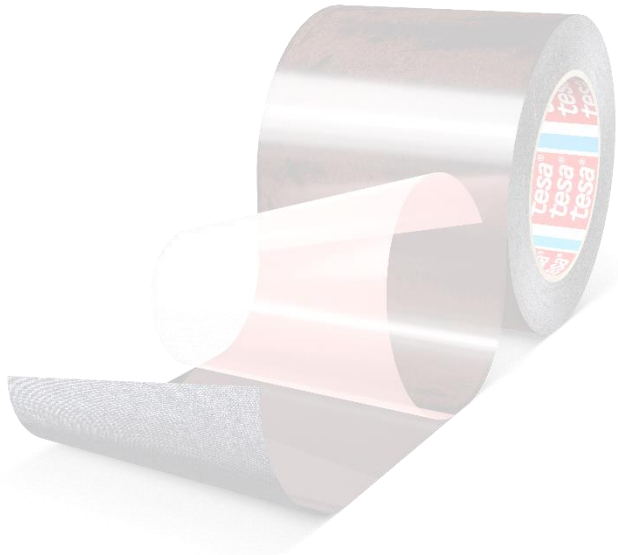


zero waste

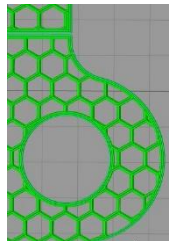




# WHY SHOULD YOU PRINT THAT FRAME?



Decentral printing  
More material saving by design  
Variable Height of bonding line  
Less Tooling  
Lower level Logistics



## Our choice:

Arburg freeformer for highest precision and matching our material.

## Our findings:

**Same performance compared to coating technology.**

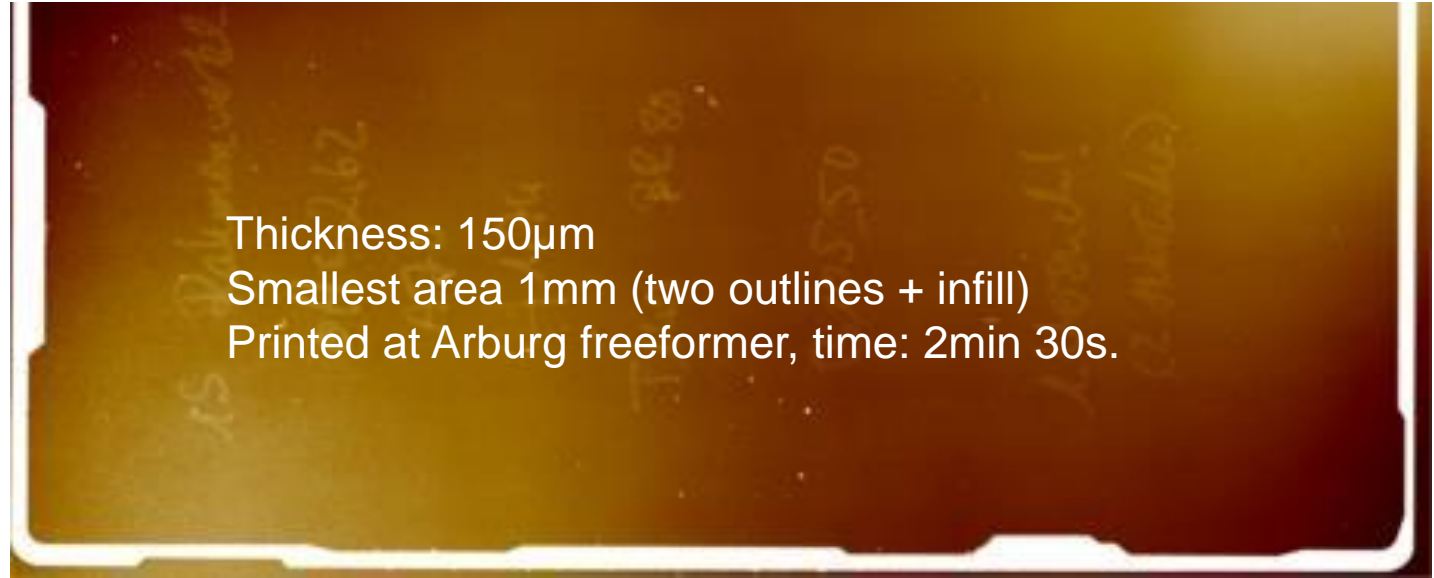
### Features


- Very high bonding strength
- Easy removability even after long bonding time by stretching the adhesive
- Bonding on MSE/LSE substrates
- Temperature stability short: 90 °C

**Immediately stable dimensions after printing.**

**Assembly direct after printing, low pressure.**

**Cover of printout for later assembly possible**



A close-up photograph of a person's hands holding a smartphone. The phone is held vertically, and the person's fingers are visible at the bottom and sides. The background is a blurred cityscape with buildings and a clear sky, suggesting an outdoor setting.

# Thank you for your attention!

Frank Virus / [frank.virus@tesa.com](mailto:frank.virus@tesa.com)

tesa SE

Learn more about our company

[www.tesa.com](http://www.tesa.com)







tesa® products prove their impressive quality day in, day out in demanding conditions and are regularly subjected to strict controls. All technical information and data mentioned above are provided to the best of our knowledge on the basis of our practical experience. They shall be considered as average values and are not appropriate for a specification. Therefore tesa SE can make no warranties, express or implied, including, but not limited to any implied warranty of merchantability or fitness for a particular purpose. The user is responsible for determining whether the tesa® product is fit for a particular purpose and suitable for the user's method of application. If you are in any doubt, our technical support staff will be glad to support you.