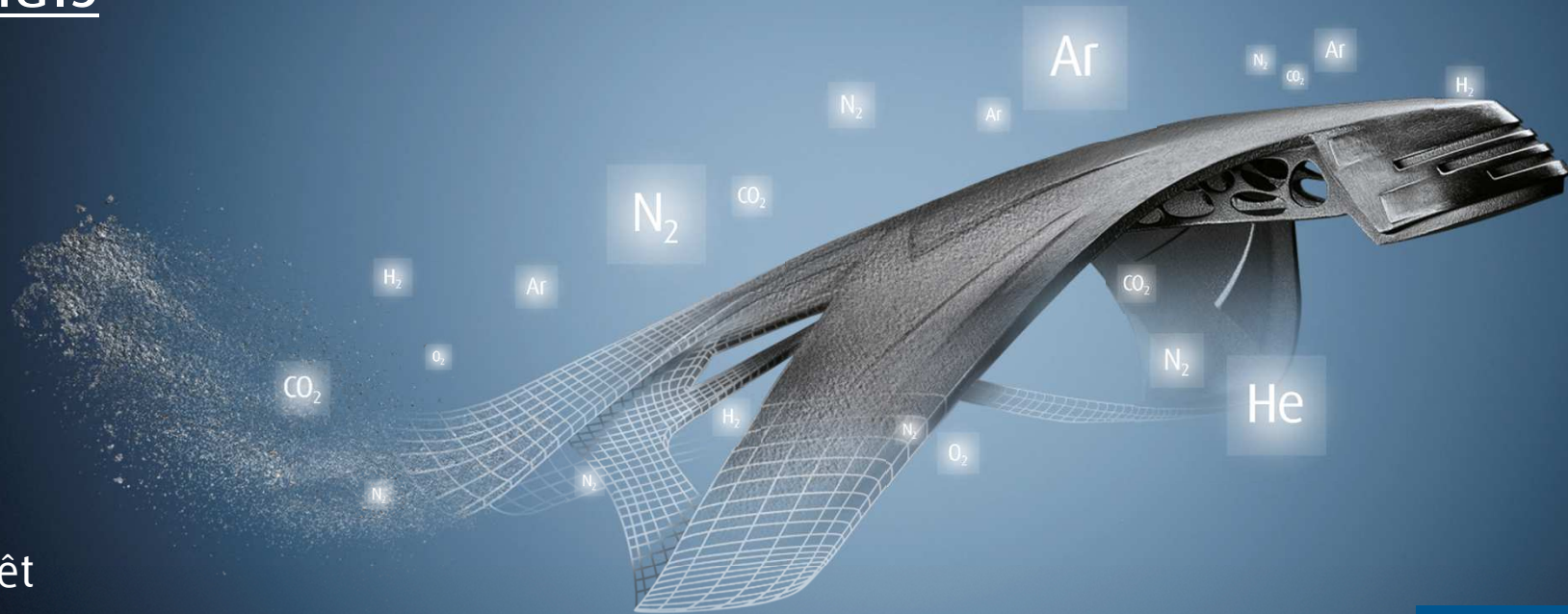


# 3rd MTC on Additive Manufacturing Materials

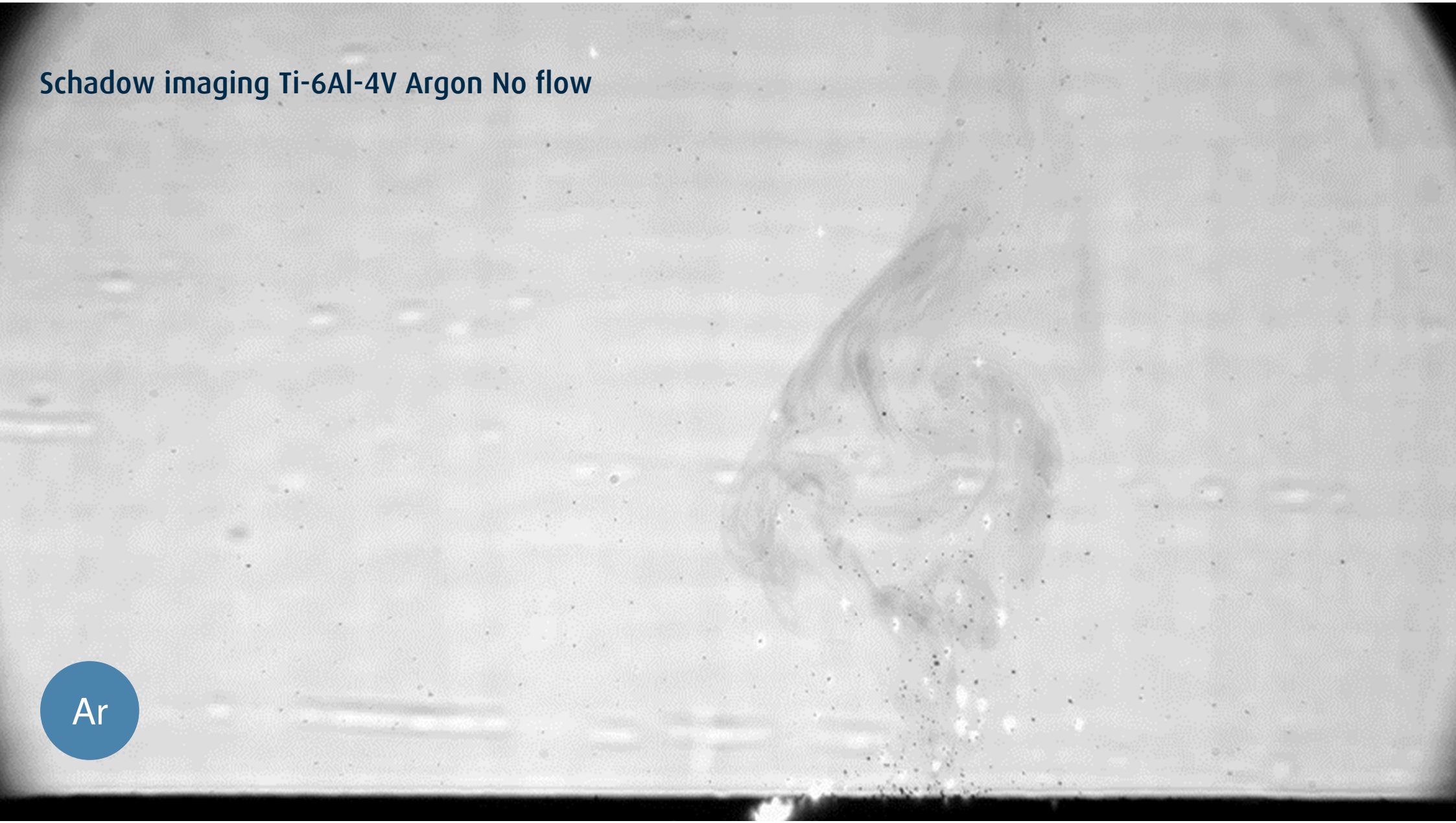


Pierre Forêt  
09.10.2019

Making our world more productive



Schadow imaging Ti-6Al-4V Argon No flow



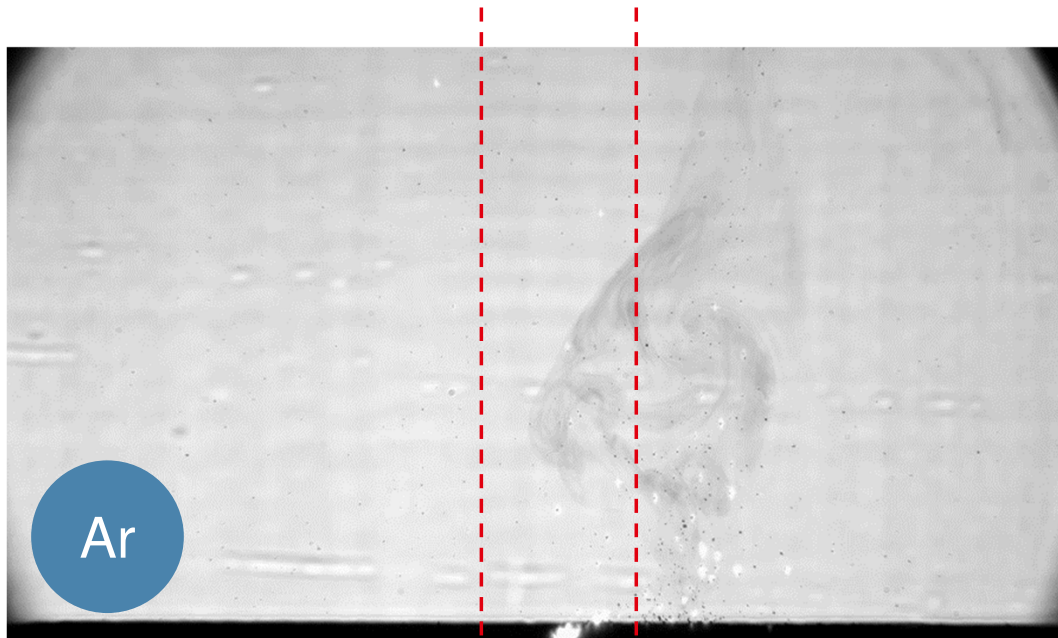
Schadow imaging Ti-6Al-4V Helium No flow

He

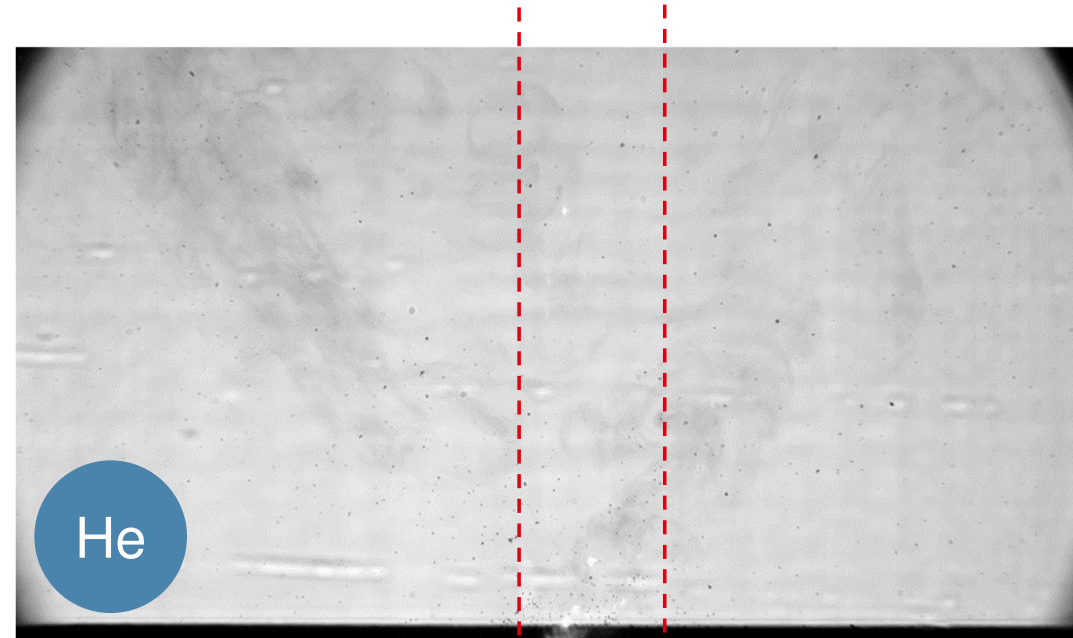


# Schadow imaging Ti-6Al-4V Argon (left) and Helium (right) No flow

Collaboration project with ACAM-Fraunhofer ILT-SLM Solutions



Material: Ti6Al4V, Scan speed: 1,000 mm/s, Layer: 30  $\mu$ m, Specimen: cube  
Inert gas: **Argon** (no flow)



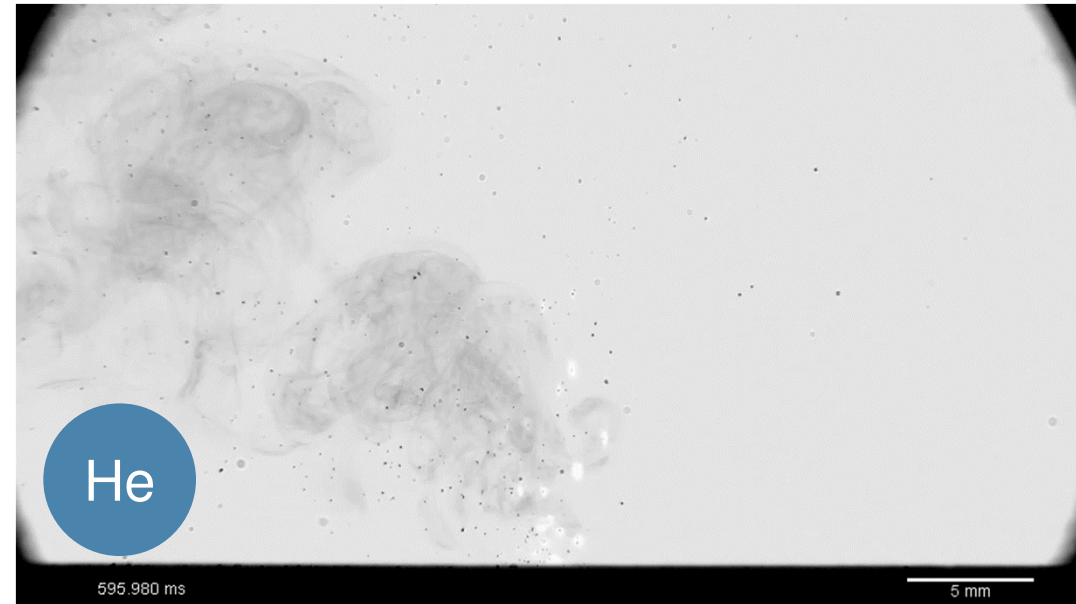
Material: Ti6Al4V, Scan speed: 1,000 mm/s, Layer: 30  $\mu$ m, Specimen: cube  
Inert gas: **Helium** (no flow)

# Schadow imaging Ti-6Al-4V Argon (left) and Helium (right) With flow

Collaboration project with ACAM-Fraunhofer ILT-SLM Solutions

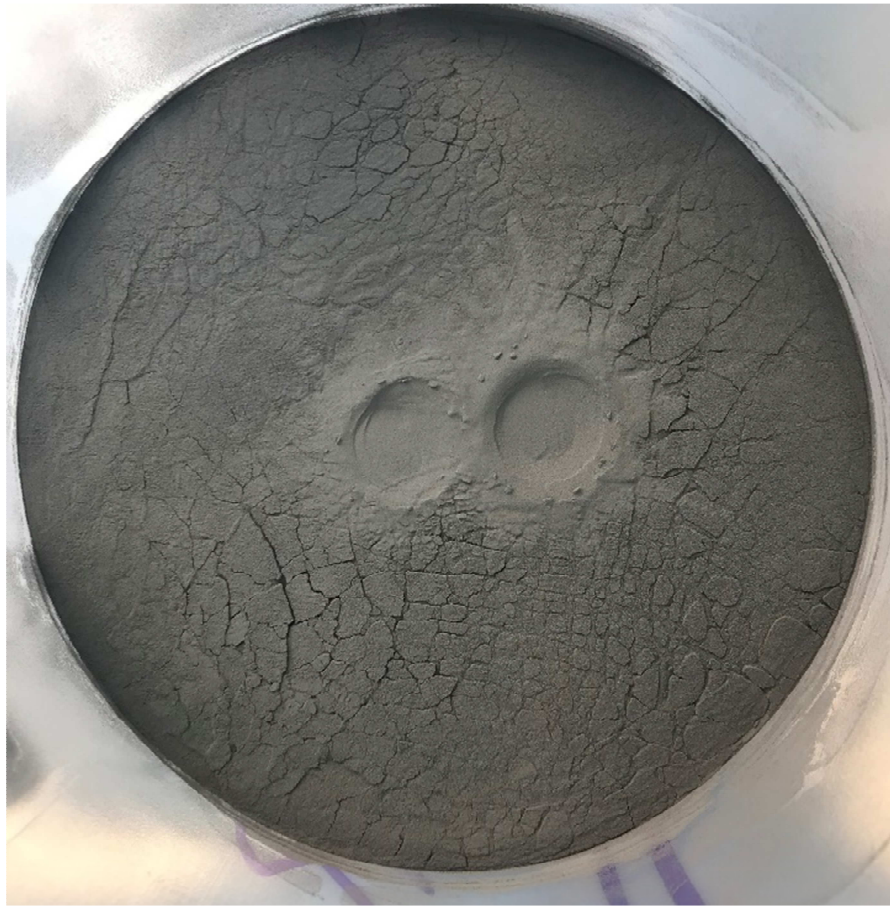


Material: Ti6Al4V, Scan speed: 1,000 mm/s, Layer: 30  $\mu$ m, Specimen: cube  
Inert gas: **Argon** (with flow)



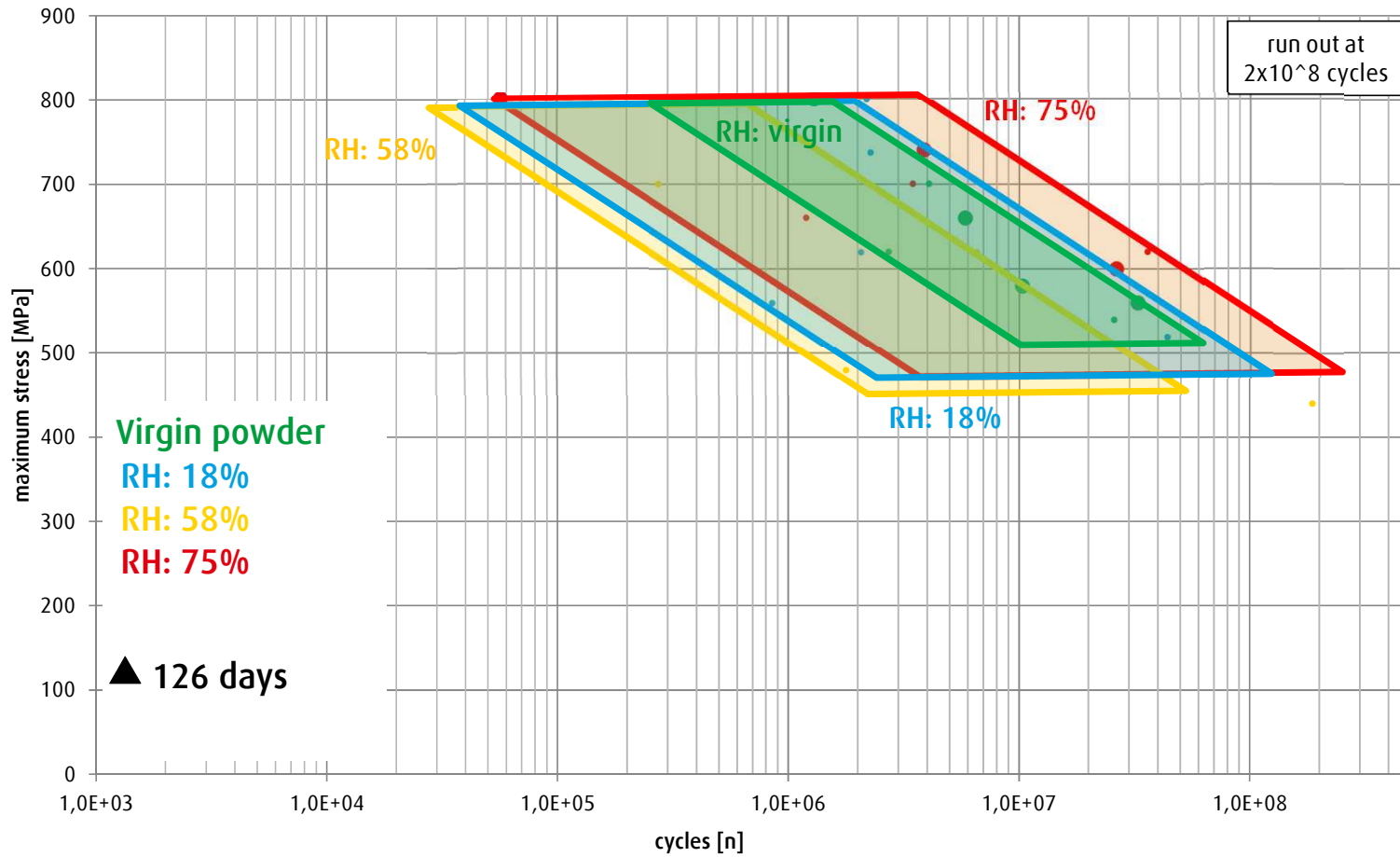
Material: Ti6Al4V, Scan speed: 1,000 mm/s, Layer: 30  $\mu$ m, Specimen: cube  
Inert gas: **Helium** (with flow)

Powder storage at 75%RH after 273 days Ti-6Al-4V  
Collaboration project with Airbus and Oerlikon

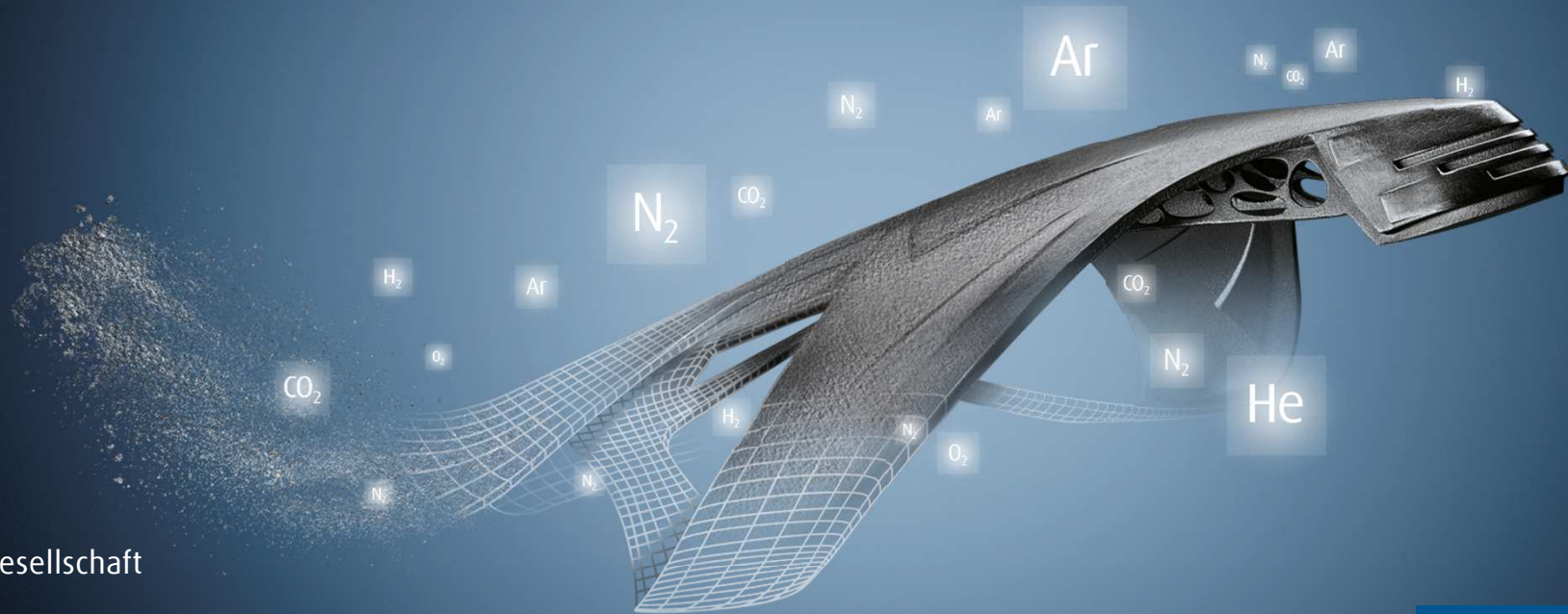


# Powder storage at 75%RH after 126 days Ti-6Al-4V

Collaboration project with Airbus and Oerlikon



# Thank you for your attention



Linde Aktiengesellschaft  
Pierre Forêt  
Pierre.foret@linde.com

Making our world more productive

