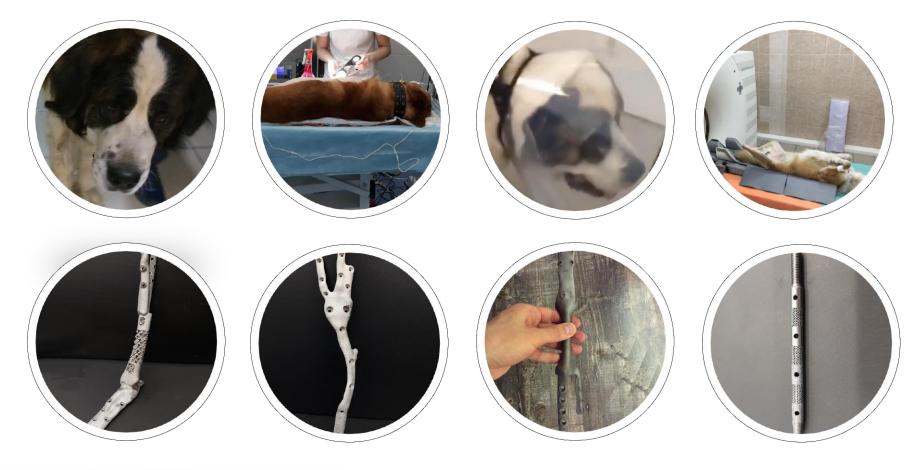
# Applications of Metal Additive Manufacturing in Veterinary Orthopedic Surgery







## **Computed Tomography (CT) - 3D visualization**









**Moscow Watchdog - Sarcoma** 



**Mongrel - Bone fracture** 



**Moscow Watchdog - Sarcoma** 



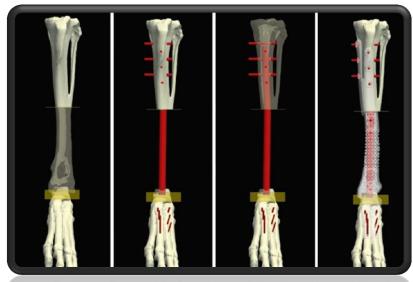


## **Surgery planning**

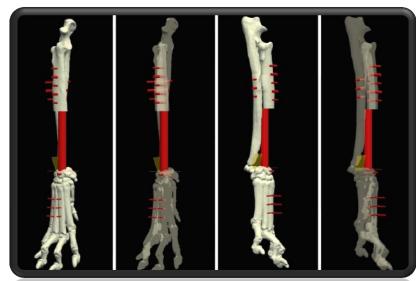










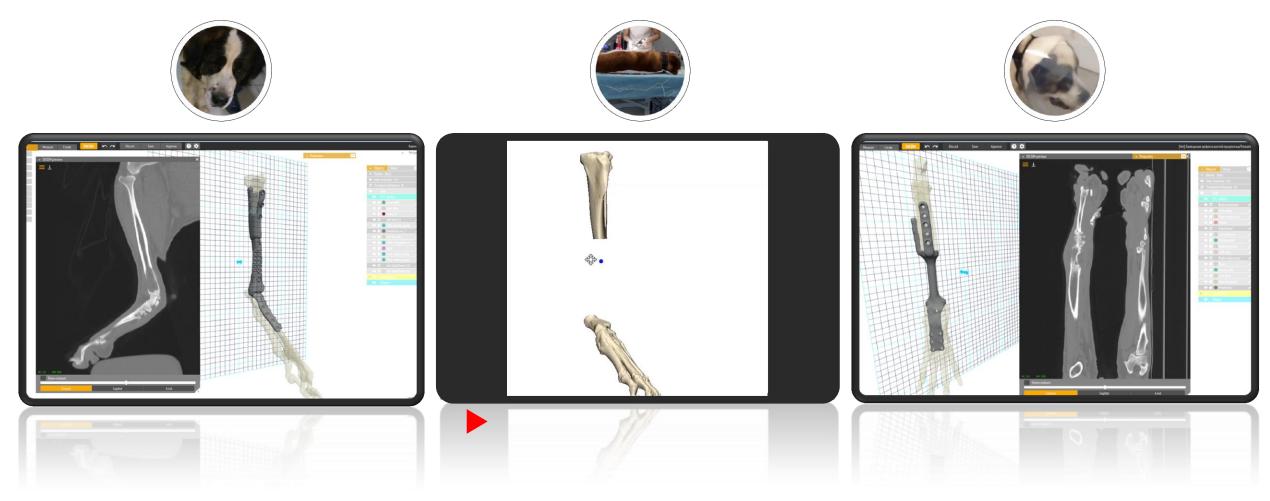








## **Implant modeling**





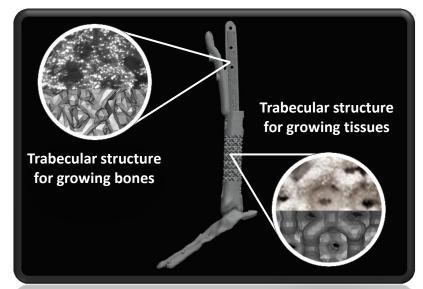


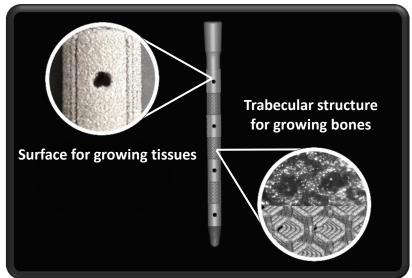
### Trabecular structure and surfaces types

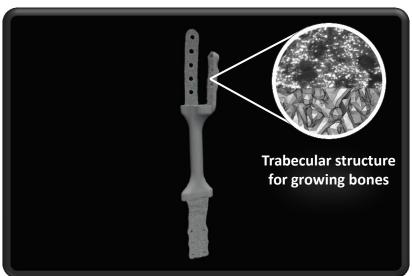








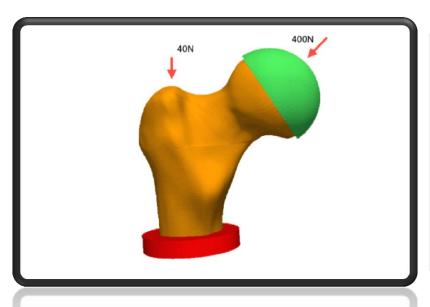


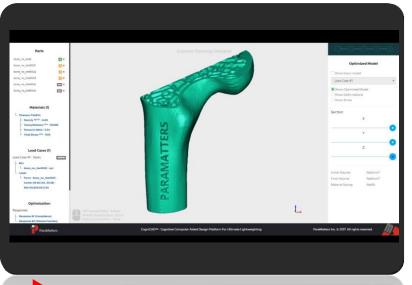






## **Topology Optimization and Unique Meso-Structural Designer**







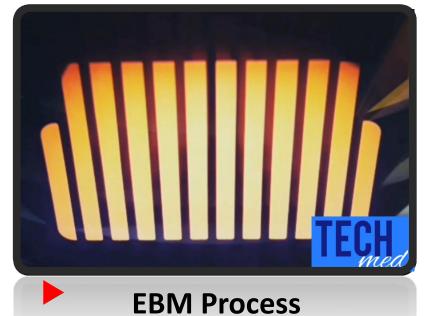


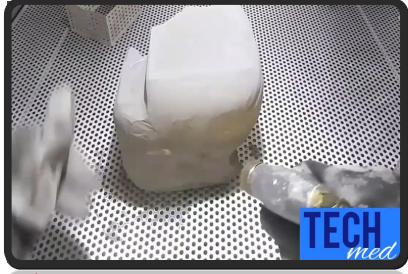




## **Titanium 3D Printing (Ti6Al4V)**









Powder Handling





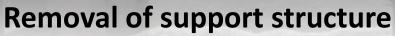
### Post-processing of titanium implant

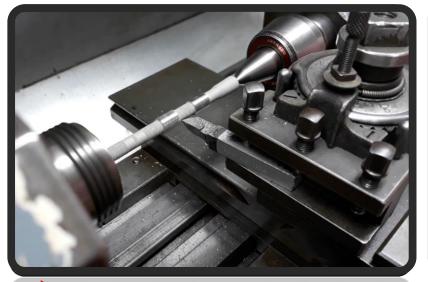












**Machining** 



Polishing



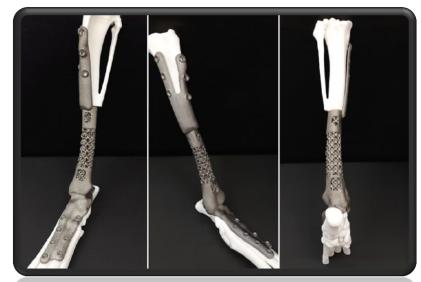


# **Surgery simulation**















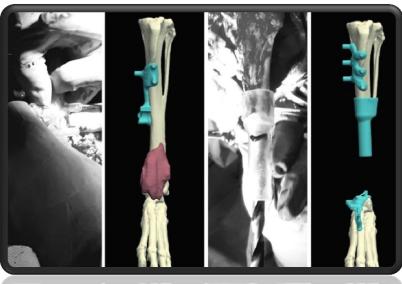


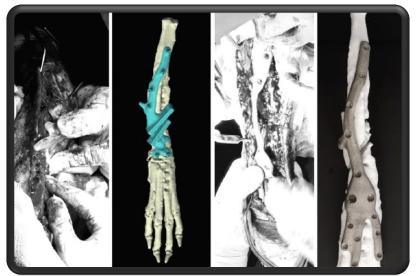
## **Cutting and drilling guides**

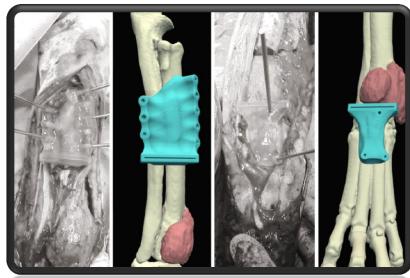












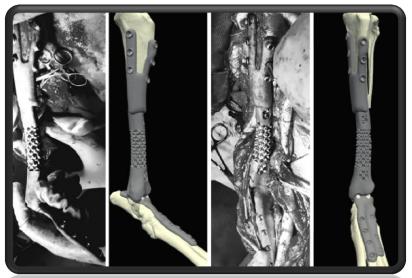




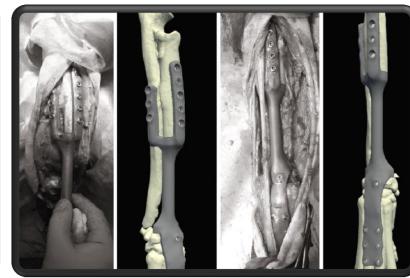
## Surgery















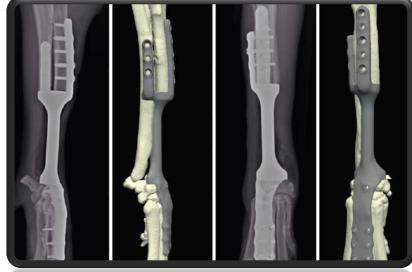
## **Surgery (X-Ray)**















#### **Results**

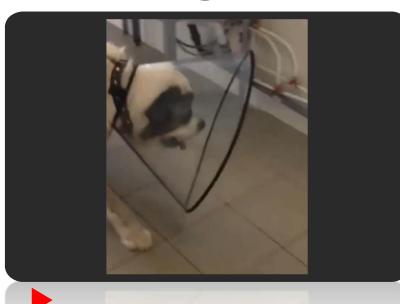
















#### **Team**









