

UNIT 3 – Additive manufacturing and 3D printing in Industry 4.0 Subunit 2 – AM: Processes, materials, and application areas

## **AM materials**



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### Introduction

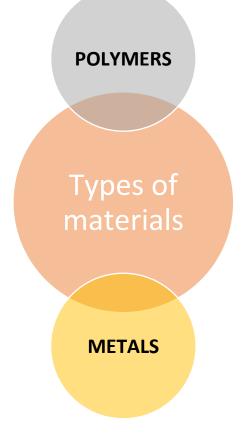
There is today a wide variety of different material types that are supplied in different states (powder, filament, wire, pellets, granules, resin, etc.).

Specific materials are now generally developed for specific platforms performing dedicated applications with material properties that more precisely suit the application.

In this activity trainees will have to differentiate AM materials. In the next slide make a correspondence with arrows between the two types of shown materials and the materials themselves.



# **Exercise: Two types of materials and respective materials**



Acrylonitrile butadiene styrene

Cre

- Polycarbonate
- □ Cobalt-chrome alloy
- $\square$  Polyamide
- Stainless steel
- Epoxy resin
- □ Titanium alloy
- □ Aluminium alloy
- $\Box$  Gold
- $\Box$  Silver
- $\square$  Polylactide

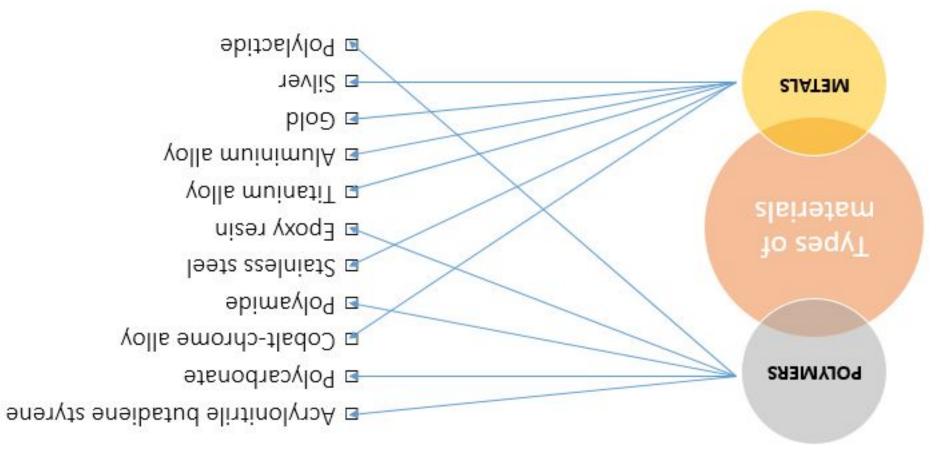


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### **Exercise solution**





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#### **Project partners**











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