



Powder  
metal  
components



[www.ames-sintering.com](http://www.ames-sintering.com)

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

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

[www.ames-medical.net](http://www.ames-medical.net)

 AMES - Sintered metallic components

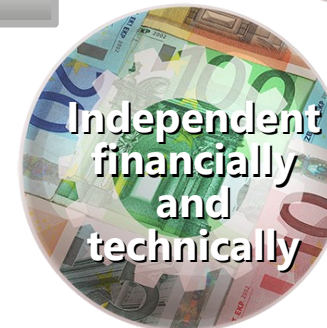
 @AMESgroupSintering

 AMES

 @AMES.Sintering.grp



# General data





# High precision powder metal components



**Mechanical components**



**Soft magnetic sintered parts**



**Ultraporous biomedical implants**



**Self-lubricating sintered bushings**



**Metallic filters and membranes**



# Product segmentation

## Automotive 87.8%

COMFORT & SAFETY 20.0%

EGR/EXHAUST 3.4%

STARTERS 3.3%

FUEL PUMPS 7.0%

OIL PUMPS 4.5%

BRAKES 4.8%

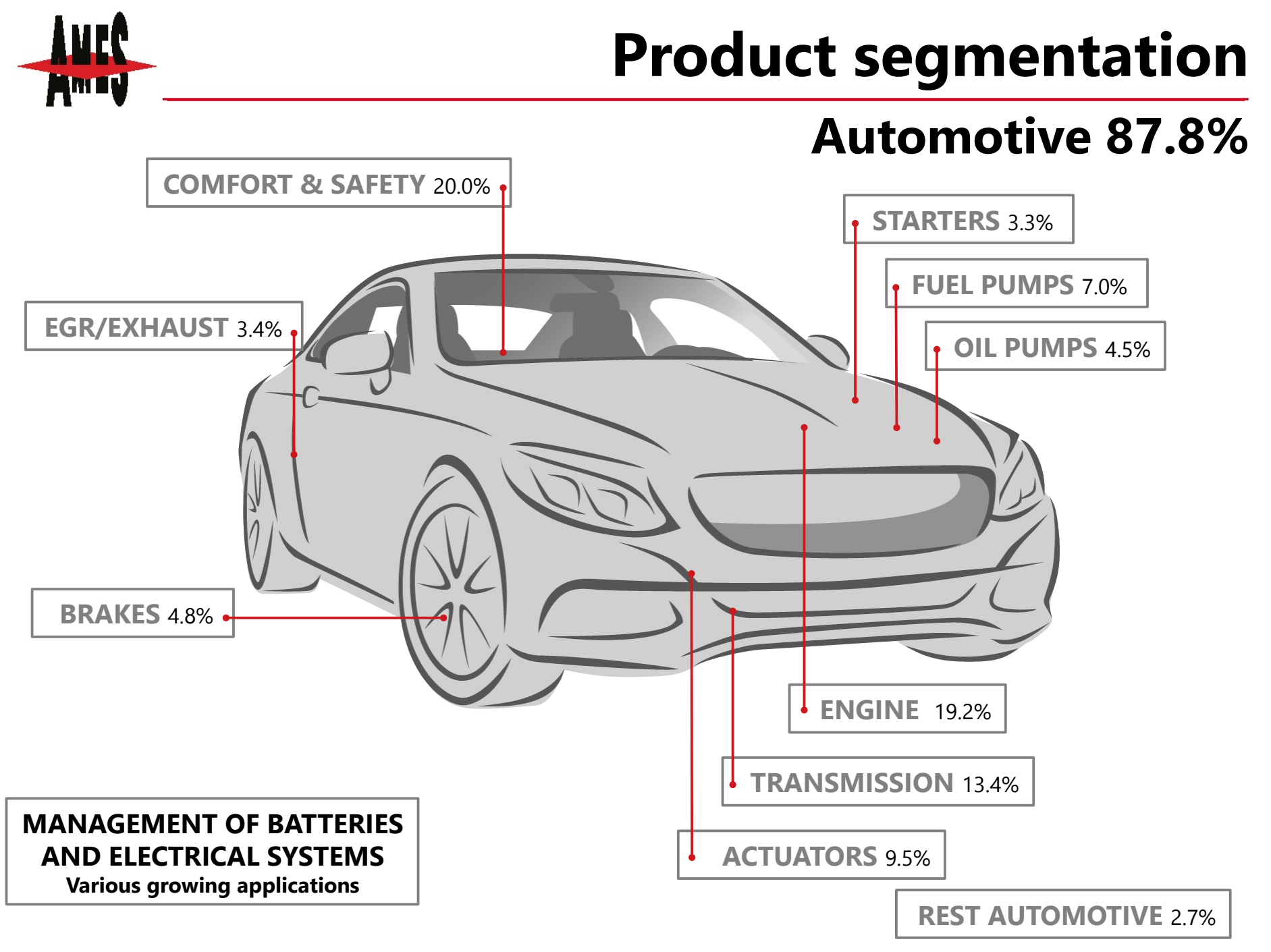
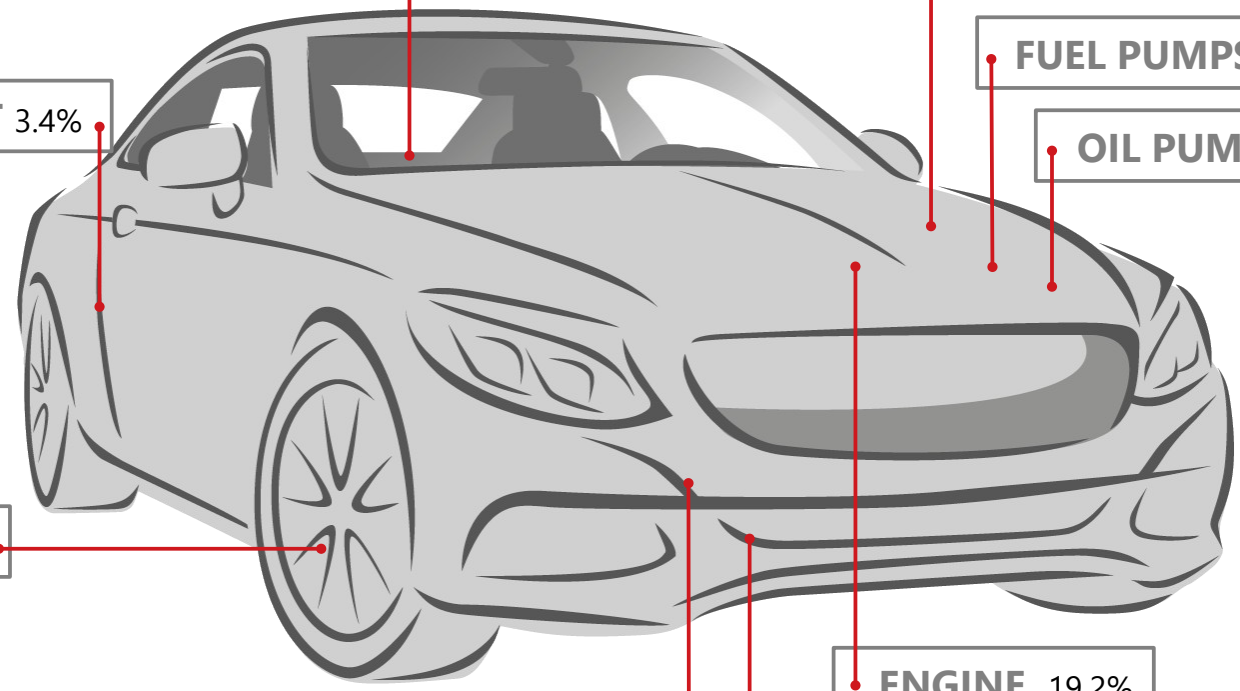
ENGINE 19.2%

TRANSMISSION 13.4%

ACTUATORS 9.5%

REST AUTOMOTIVE 2.7%

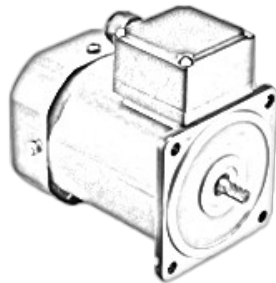
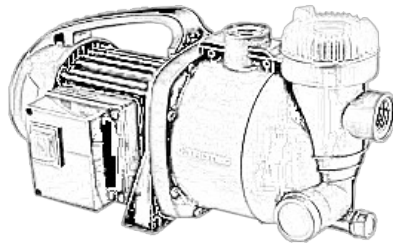
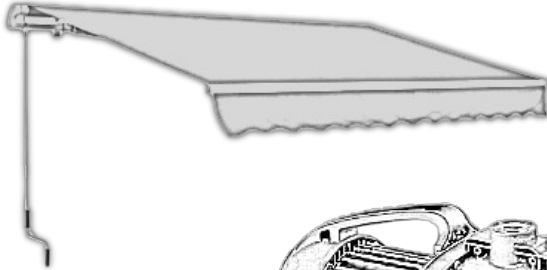
**MANAGEMENT OF BATTERIES AND ELECTRICAL SYSTEMS**  
Various growing applications





# Product segmentation

Industrial 12.2%



HOUSEHOLD APPLIANCES

HOME FITTINGS

SPECIAL ELECTRIC MOTORS

INDUSTRIAL VEHICLES

INDUSTRIAL PUMPS

FILTRATION

MEDICAL DEVICES

CONSUMER GOODS

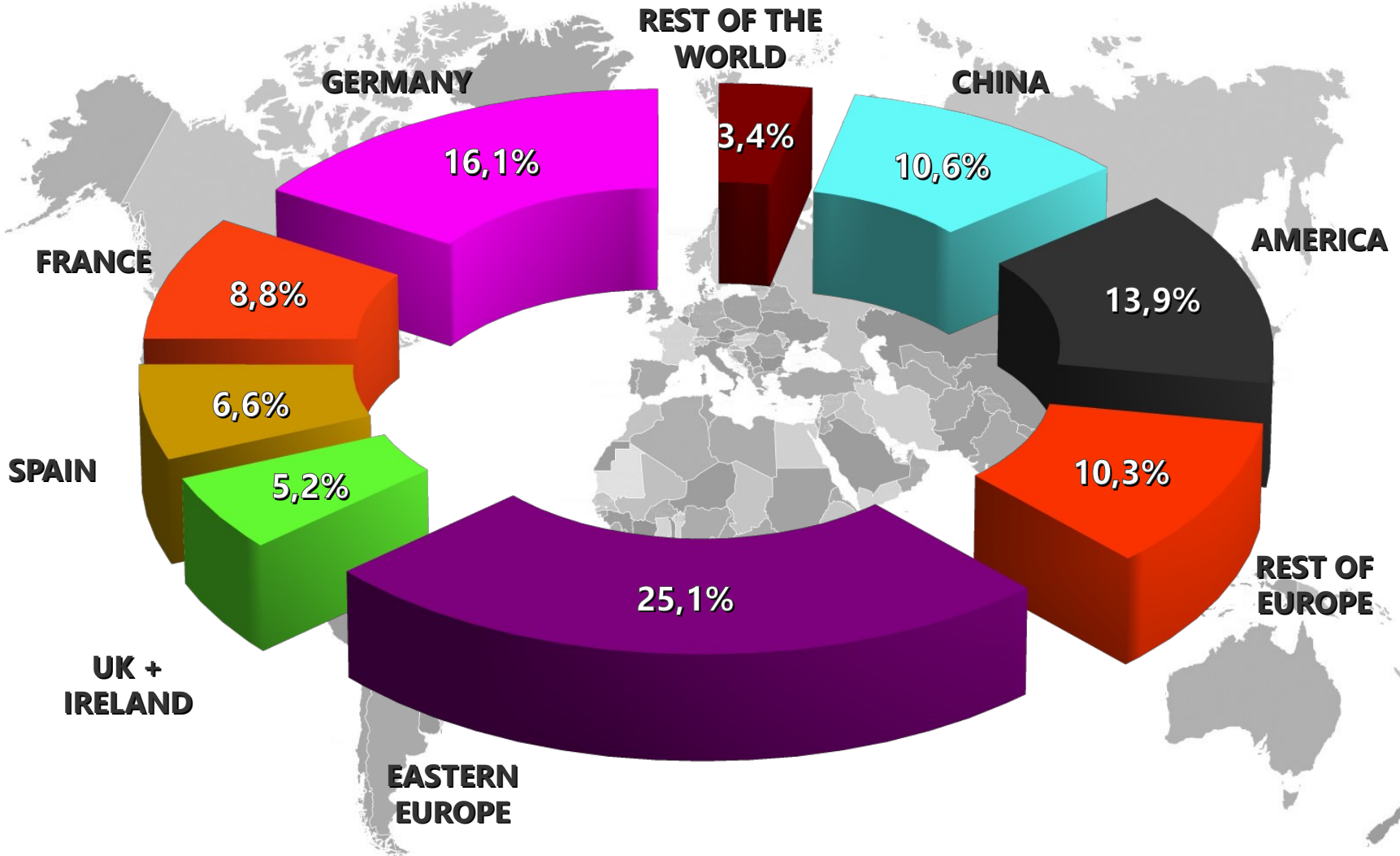
**VARIOUS APPLICATIONS**

Special machinery  
Instrumentation  
Automation





# Sales by market 2023





# Locations in Europe



**AMES TAMARITE** ■ Tamarite de Litera, Spain  
Manufacturing Plant  
Mechanical components



**AMES BARCELONA** ■ Sant Vicenç dels Horts, Spain  
Manufacturing Plant  
Mechanical components - Soft magnetics parts



**AMES MONTBLANC** ■ Montblanc, Spain  
Manufacturing Plant  
Mechanical components - Soft magnetic parts



**AMES GROUP** ■ Sant Feliu de Llobregat, Spain  
Headquarters  
Sales & administration - Logistic Center



**AMES MEDICAL** ■ Sant Vicenç dels Horts, Spain  
Manufacturing plant  
Medical devices

**AMES SWITZERLAND**  
■ Bubikon, Switzerland  
Technical & Commercial Office



**AMES HUNGARIA** ■ Szentgotthárd, Hungary  
Manufacturing Plant - Logistic Center  
Hydraulic sintered components

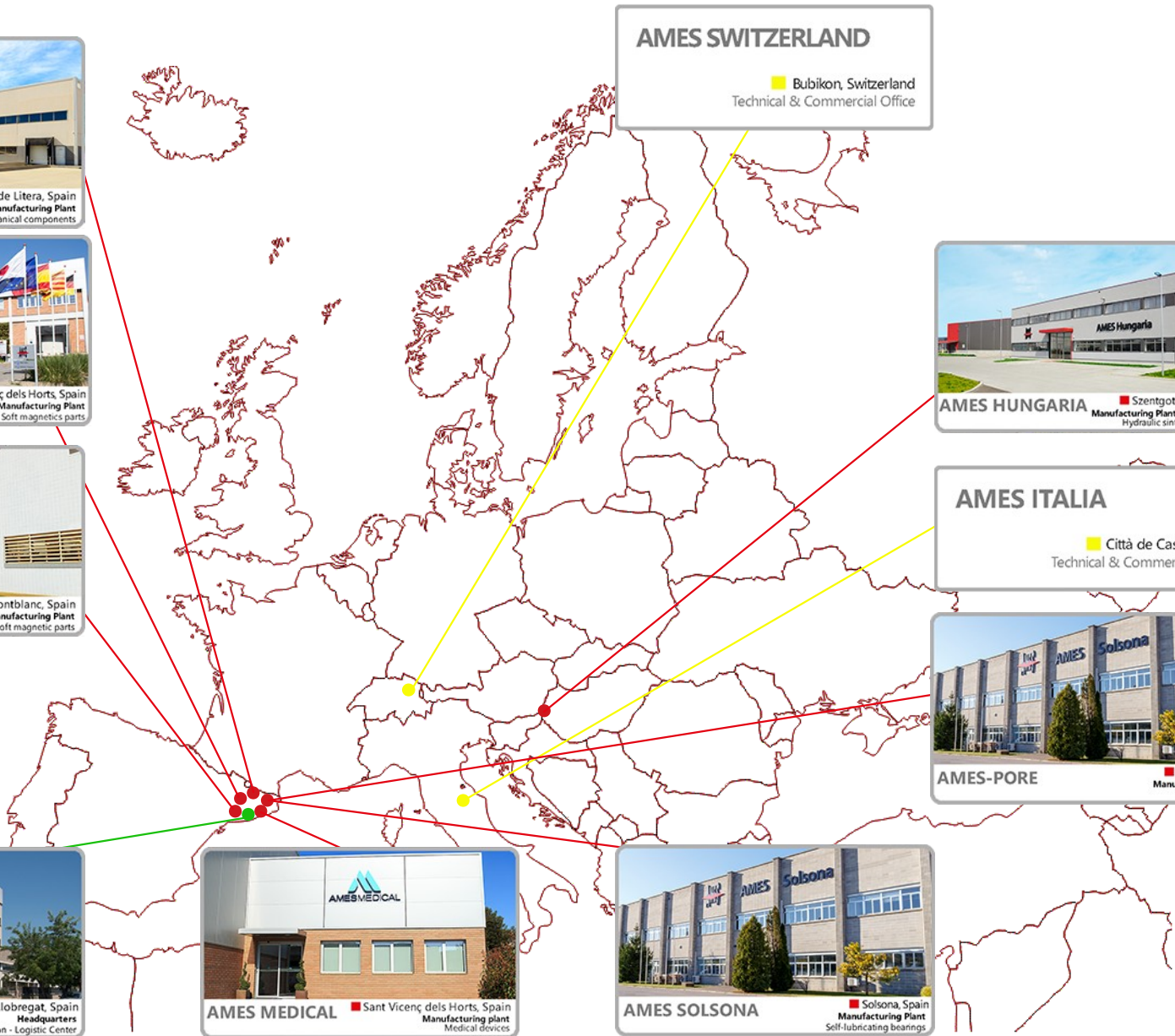
**AMES ITALIA**  
■ Città de Castello, Italy  
Technical & Commercial Office



**AMES-PORE** ■ Solsona, Spain  
Manufacturing Plant  
Metallic filters



**AMES SOLSONA** ■ Solsona, Spain  
Manufacturing Plant  
Self-lubricating bearings





# Locations in America



**AMES REESE**  
■ Bird-in-Hand, USA  
Manufacturing Plant - Logistic Center  
Mechanical components - Soft magnetic parts

**AMES SINTERING**  
■ Bird-in-Hand, USA  
Technical & Commercial Office

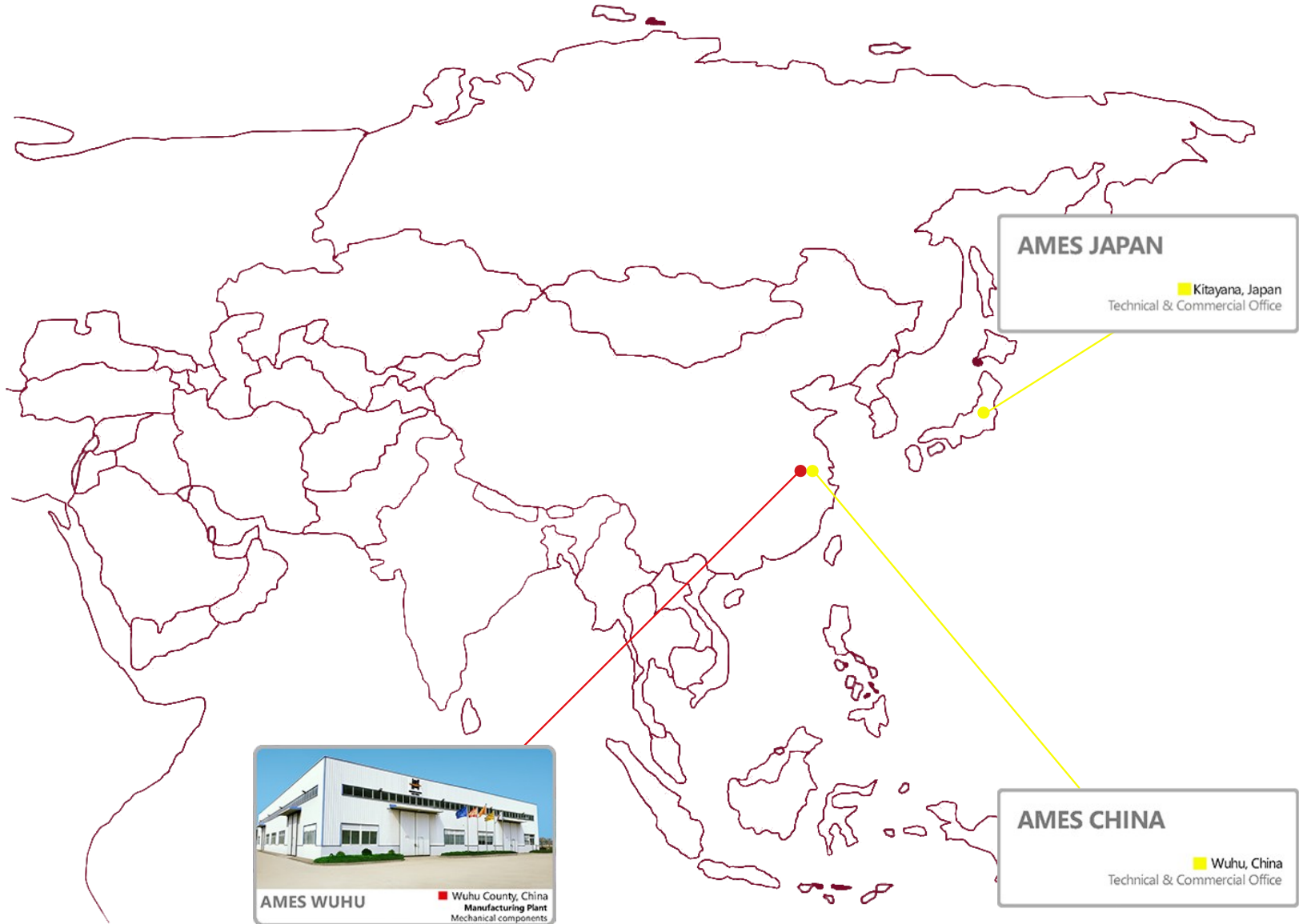
**AMES MONTERREY**  
■ Santa Catarina, México  
Technical & Commercial Office - Logistic Center

**AMES BRASIL**  
■ São Paulo, Brazil  
Technical & Commercial Office





# Locations in Asia





# Innovation centers





# Main innovations



**AmesDens-A<sup>®</sup> & AmesDens-C<sup>®</sup>**  
High density parts



**Simoloy-B<sup>®</sup>**  
Low cost efficient steels



**Ames SSP<sup>®</sup>**  
Premium stainless steel



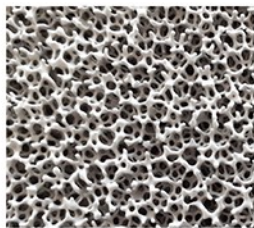
**Ames-LFC<sup>®</sup> & Ames-LFB<sup>®</sup>**  
Low friction coefficient bushings



**Ames-U4<sup>®</sup> & Ames-U5<sup>®</sup>**  
Aluminium bushings



**AmesPore<sup>®</sup> XPM**  
Metallic membranes



**Metallic foams**

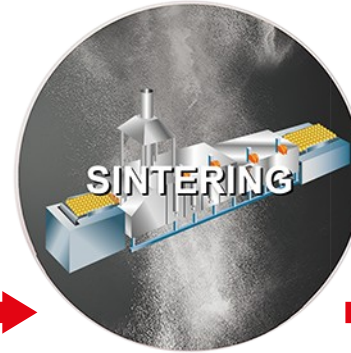
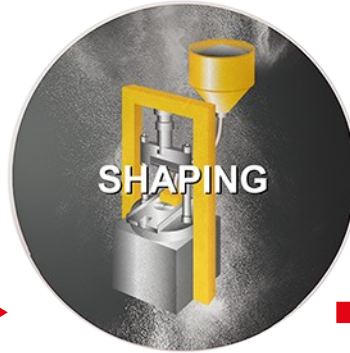


**OsteoSinter<sup>®</sup>**  
Ultraporous biomedical titanium



**Non Destructive Testing (NDTs)**

# Materials and processes



**Iron**  
**Steel** (low or high alloy)  
**Stainless steel** (3XX, 4XX)  
**Refractory steels**  
**Soft magnetic materials**  
 (Fe-P, Fe-Si, Fe-Ni)  
**Bronze**  
**Brass**  
**Aluminium**  
**Titanium**  
**Nickel**  
**Composites materials**  
**Double-layer materials**  
**Resins**

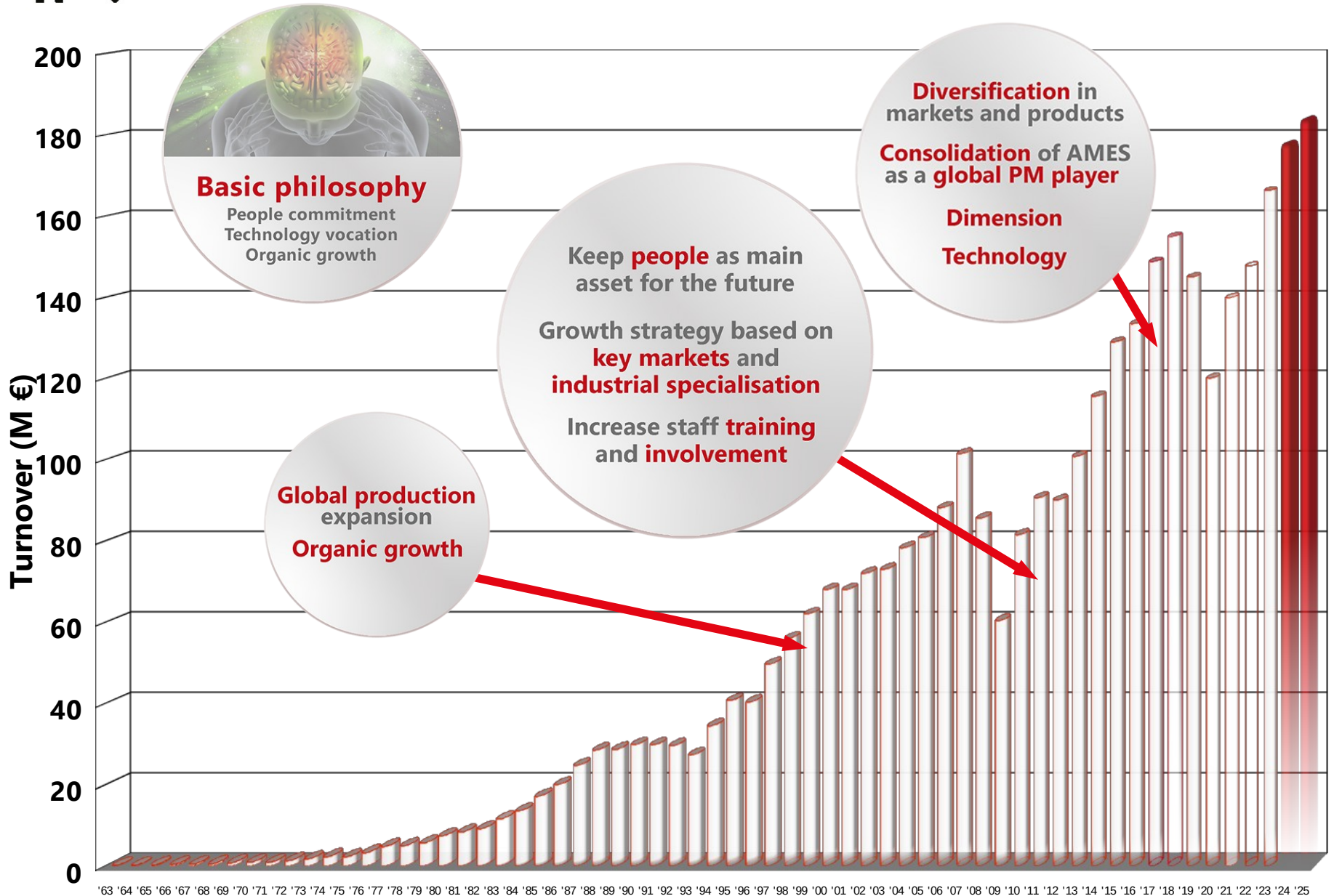
**Uniaxial compacting**  
 (presses from 4 to 800 MT)  
**Isostatic compacting**  
**Spacers technology**  
**Loose powder**  
**Extrusion**  
**Metal Binder Jetting**

**Belt**  
**Walking-beam**  
**Batch**  
**Vacuum**  
 (temperature up to 1,400°C)

**Sizing**  
**Machining**  
**Oil impregnation**  
**Heat treatments**  
**Porosity sealing**  
**Deburring**  
**Cleaning**  
**Steam treatment**  
**Coatings**  
**Joining**  
**Marking**



# Evolution and Strategy



## Filtration



Stainless steel – Bronze  
Metallic membranes

## Biomedical



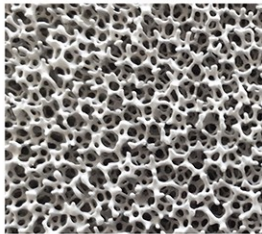
Porous titanium OsteoSinter®  
Implants

## Additive Manufacturing



Ames-Additive® MBJ  
Binder Jetting technology

## Metallic foams



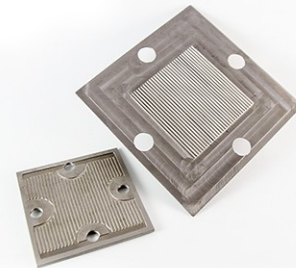
Refractory steel

## H<sub>2</sub> economy

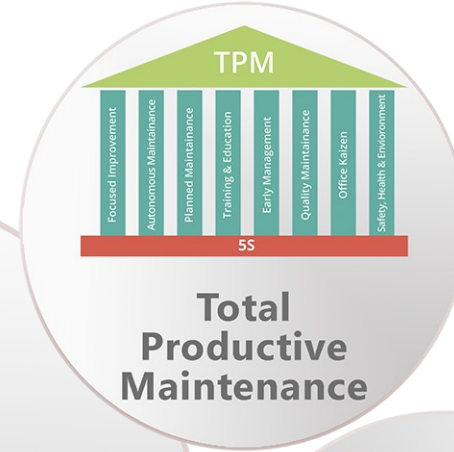


Porous stainless steel  
for H<sub>2</sub> purification  
Porous titanium for  
electrolysers

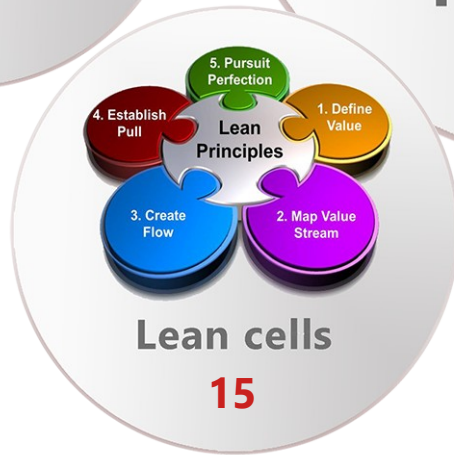
## Fuel cells



PM interconnectors for  
SOFC fuel cells  
Own design



**AMES PARTICIPATION**  
Continuous improvements





# Staff involvement



**Hours of training**  
**31**  
per person-year



**11**  
**Excellence Groups**  
Technological knowledge preservation


**1,241**  
**courses per year**  
910 internal courses  
+331 external courses



**AMES TRAINING**  
**Lifelong learning**



**College recognition system**



**Internal teachers**  
**252**  
23% of employees

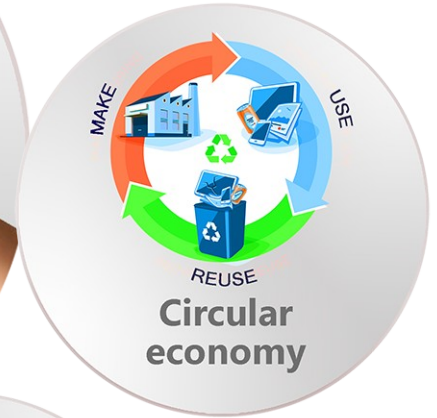
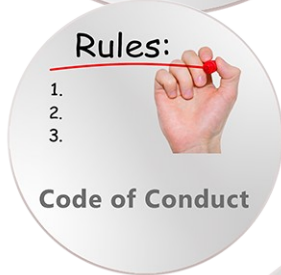
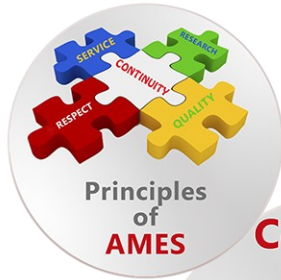


**Externalized training**





# Sustainability





[www.ames-sintering.com](http://www.ames-sintering.com)



**Thank you**  
for your valuable time!!