



# STRENGTH AND ECOLOGICAL ASPECTS OF GRAVURE PRINTING

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ERA – Annual Meeting in Hamburg  
October 06, 2020

# Gravure in this environment

# Challenges for Gravure

## Higher flexibility

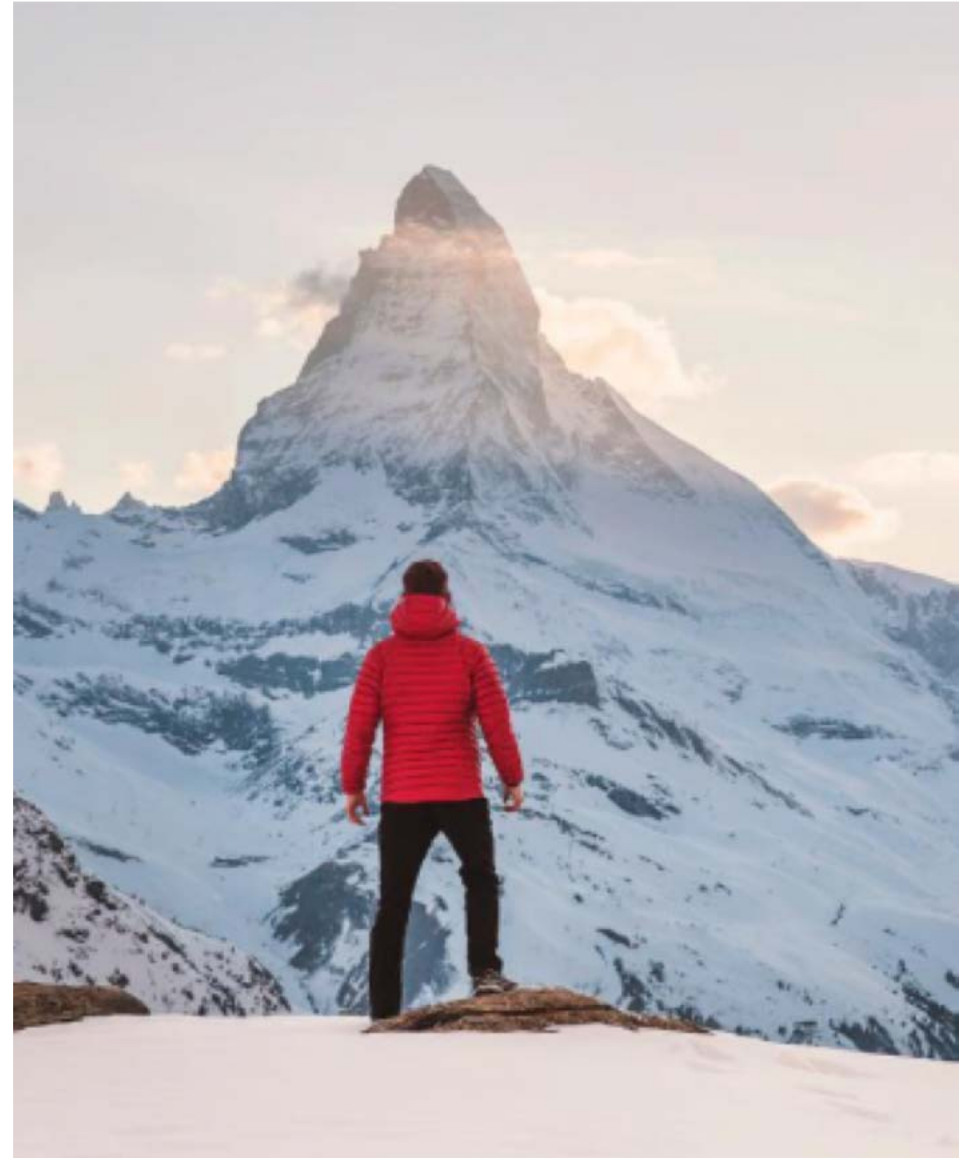
- shorter runs
- shorter lead times

## Cost pressure

- Purchase power of MNCs
- Growing capacities

## Alternative material solutions

- Recyclability
- Monomaterials
- Paper



# The ERA Study

# Method of the study

14 Companies • 21 Experts • Market Research



**Strength**



**Eco**



**Innovation**

# Strength of Gravure Printing



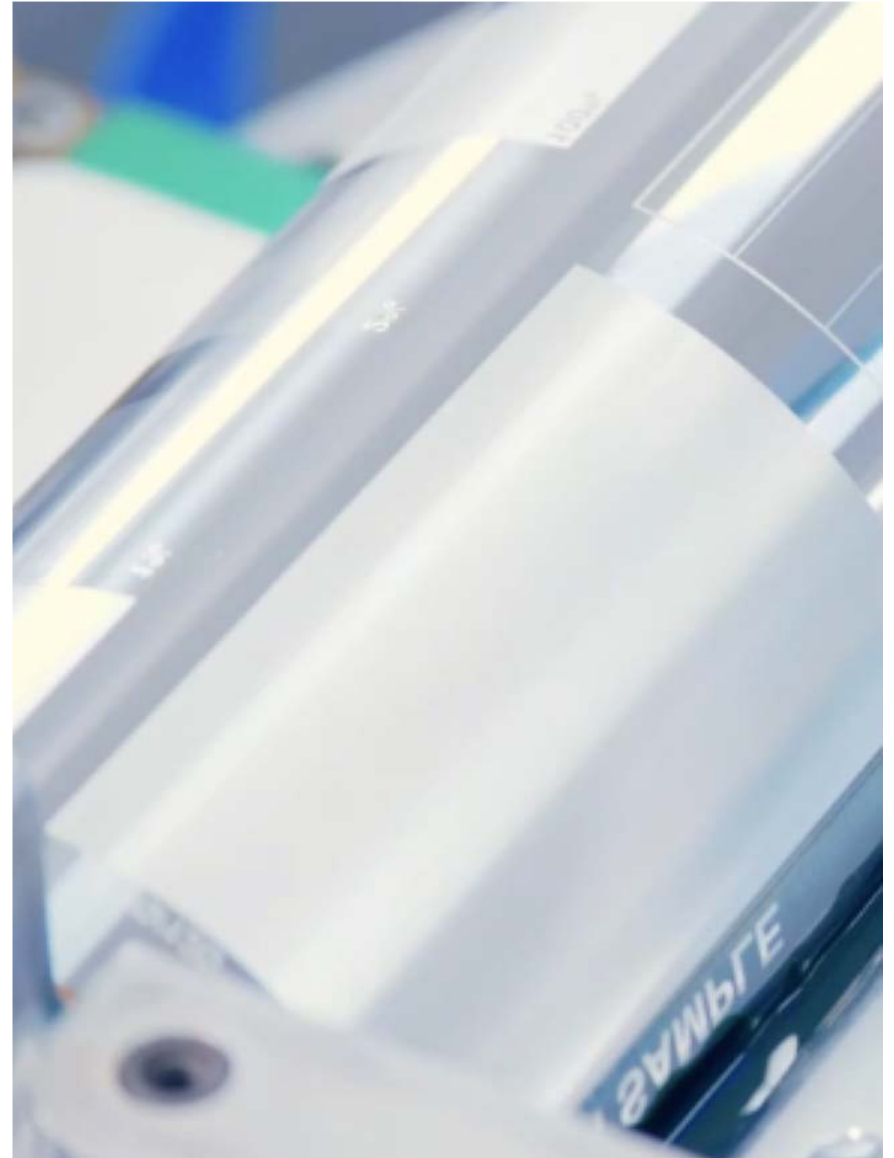
# Gravure is the leader in printing quality

- Brilliant colours
- Smooth gradations
- Consistent quality
- High reproducibility
- Highest densities
- Finest screenings



# Printing cylinders are a life time product

- Life time product
- Solid and robust cylinders
- Seamless-endless





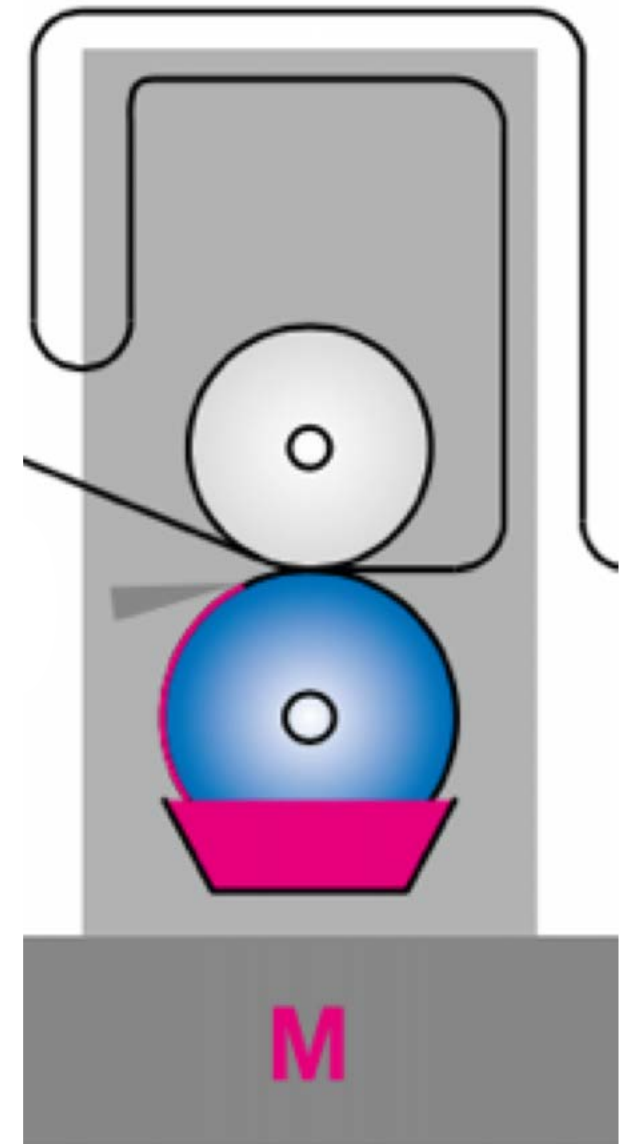
# Unique automated and standardized processes

- Full automated cylinder production is unique
- Standardized and reliable processes
- Engraving of cylinders is on a high production level globally
- High reproducibility of cylinders



# Engineering

- In line construction
- Long lasting printing presses
- High machine speed
- Easy to handle technology



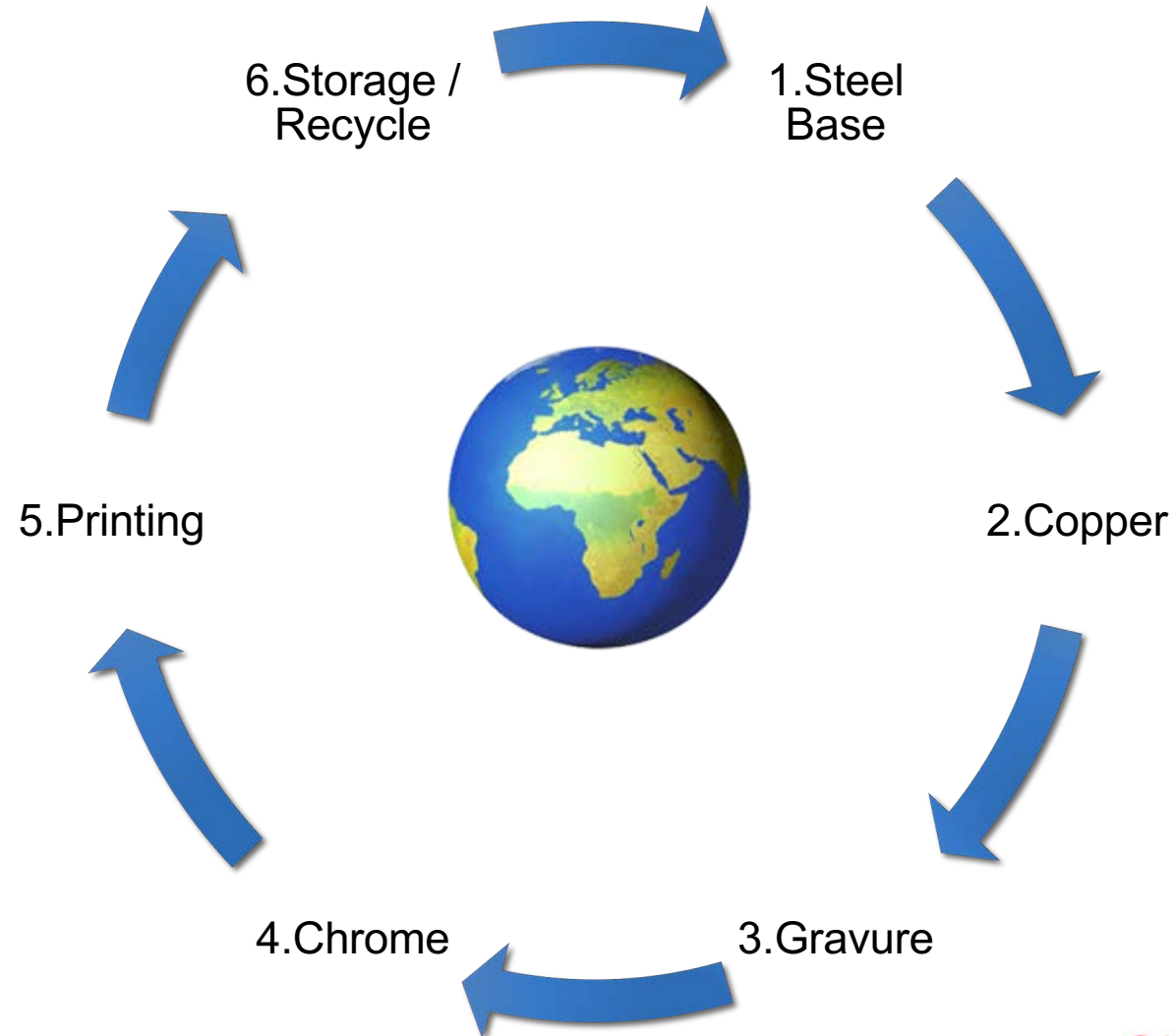
# Application specialities

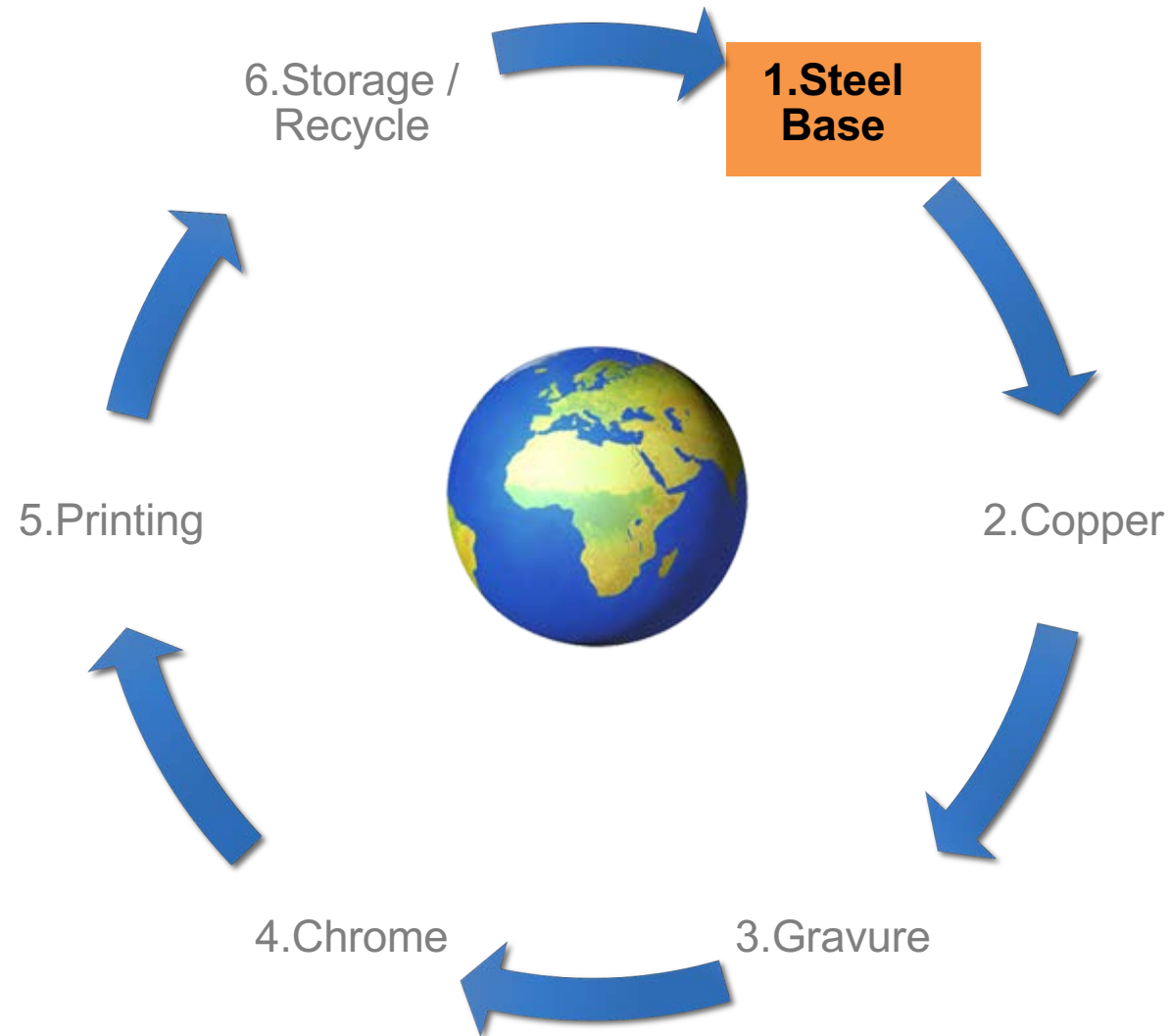
- High coating thickness for varnishes
- Metallic inks
- Iriodin inks



# Ecological aspects of Gravure Printing

# Cylinder Life Cycle

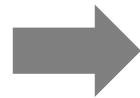




# Raw material - Steel base



Steel base  
manufacturer

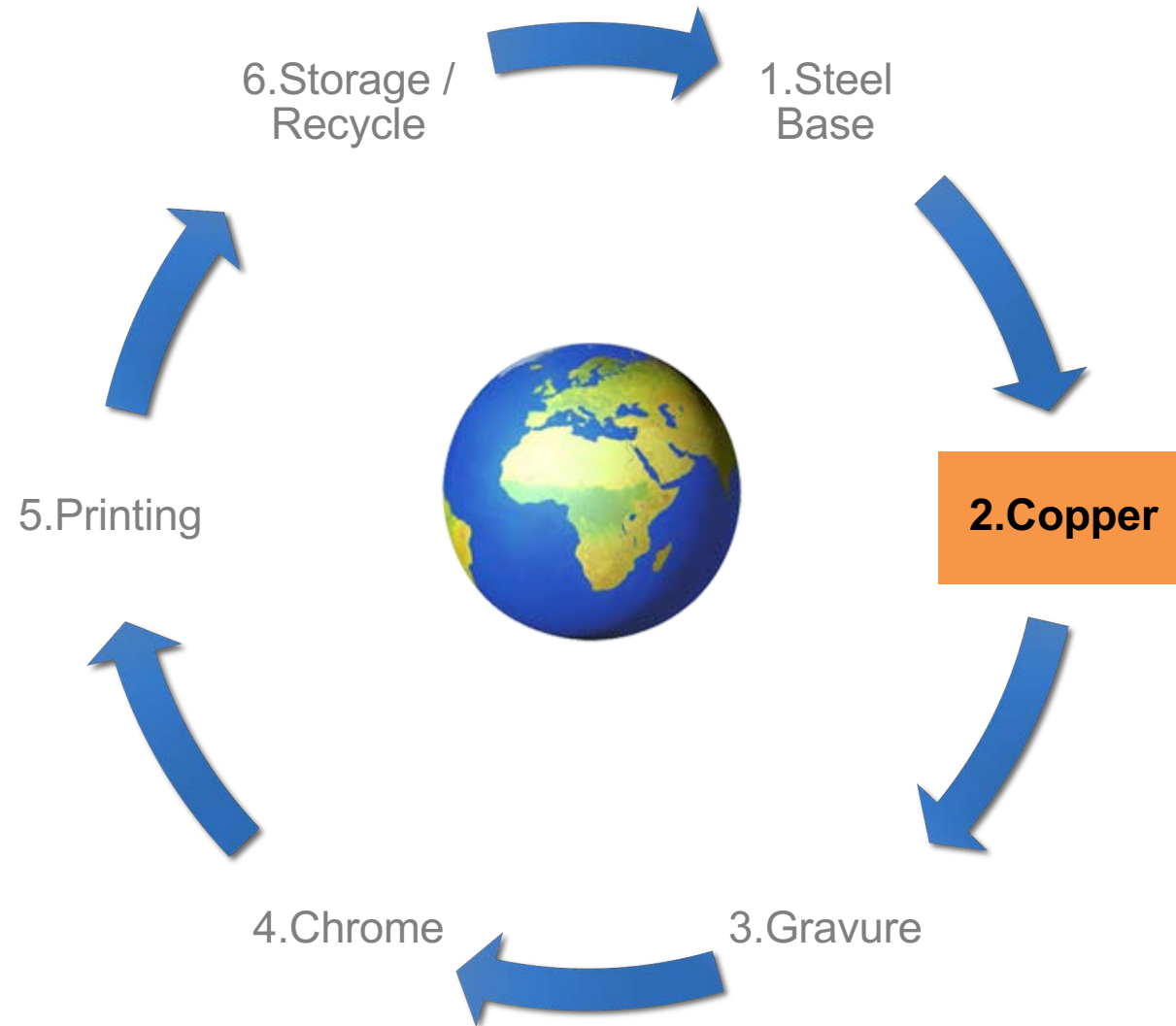


## After Printing

**Storage** as printing cylinder

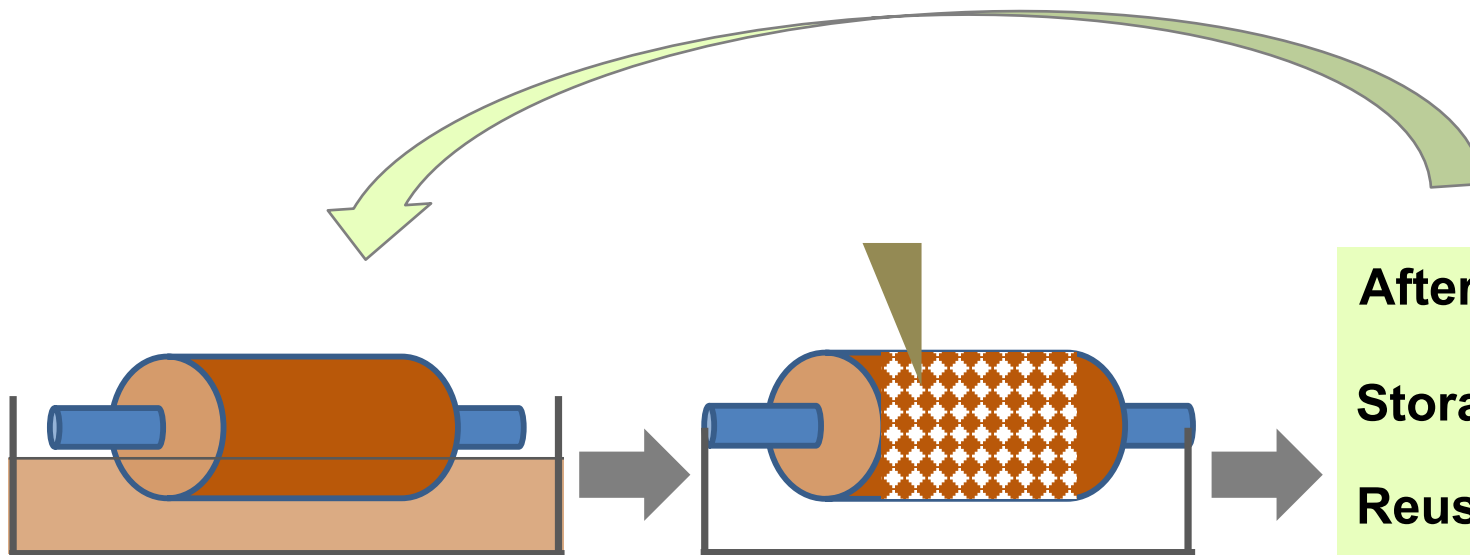
**Reuse** for other design

**Recycle** in steel production





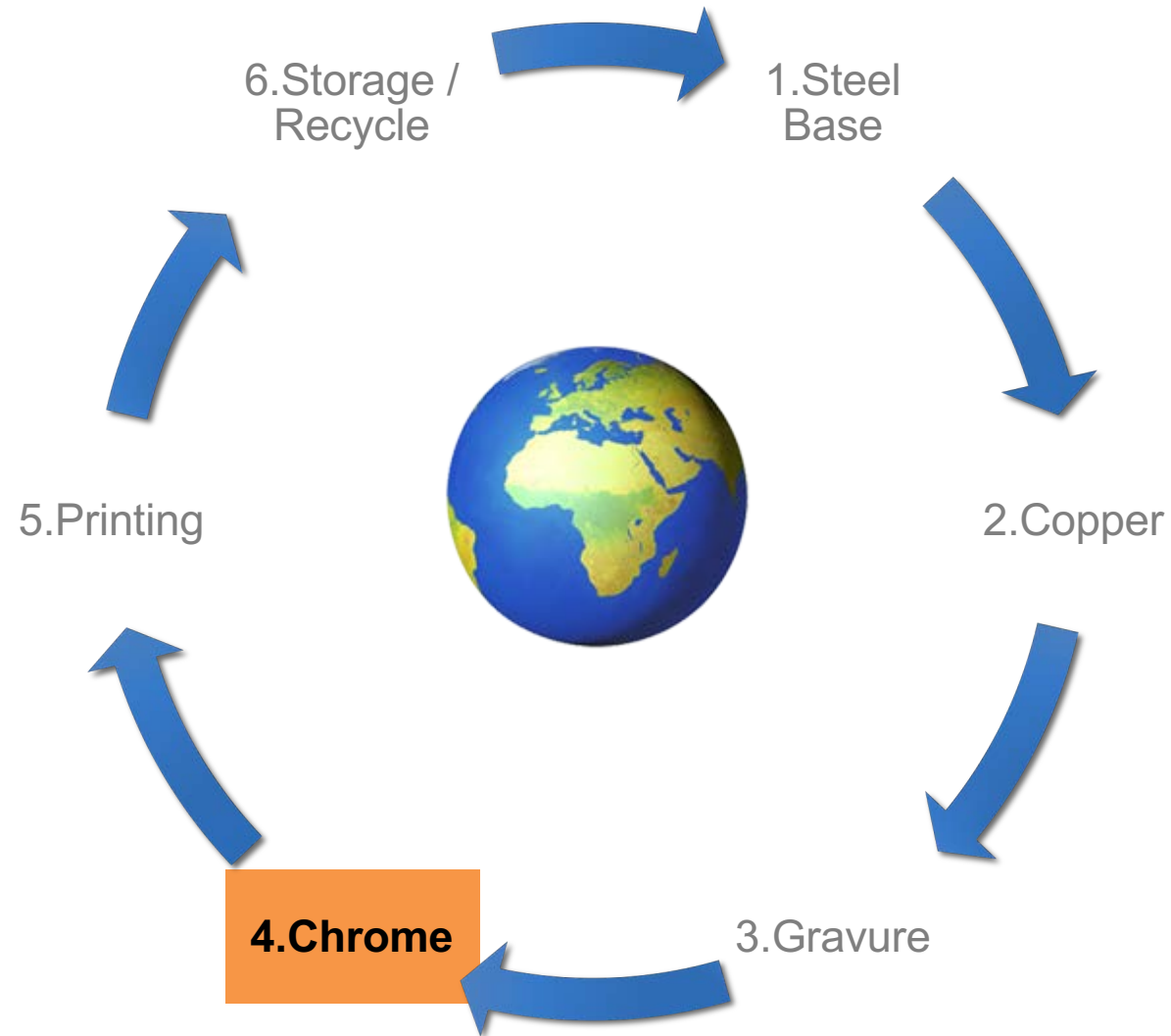
# Raw material - Copper



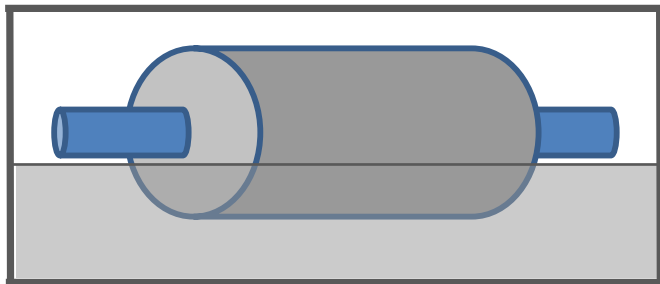
Copper bath  
High degree of purity

Gravure  
Extraction of copper dust  
and recycled of copper

**After Printing**  
**Storage** as printing cylinder  
**Reuse** the ground copper  
**Recycle** the gravure copper



# Raw material - chrome



Chrome plating

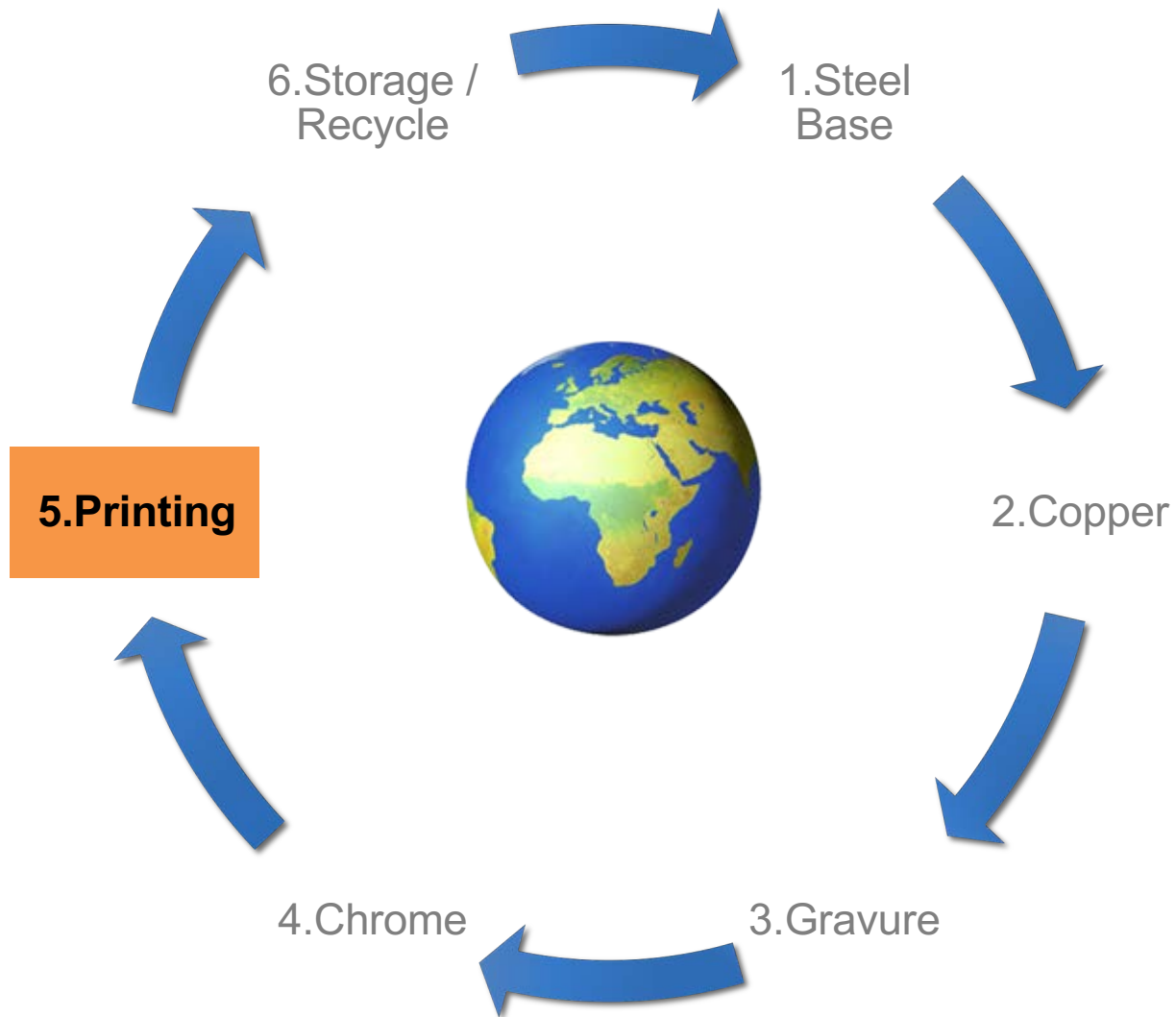


## After Printing

**Storage** as printing cylinder

**Rechrome** in acid bath

**Turn off** chrome (and copper) mechanically



# Raw material – Printing

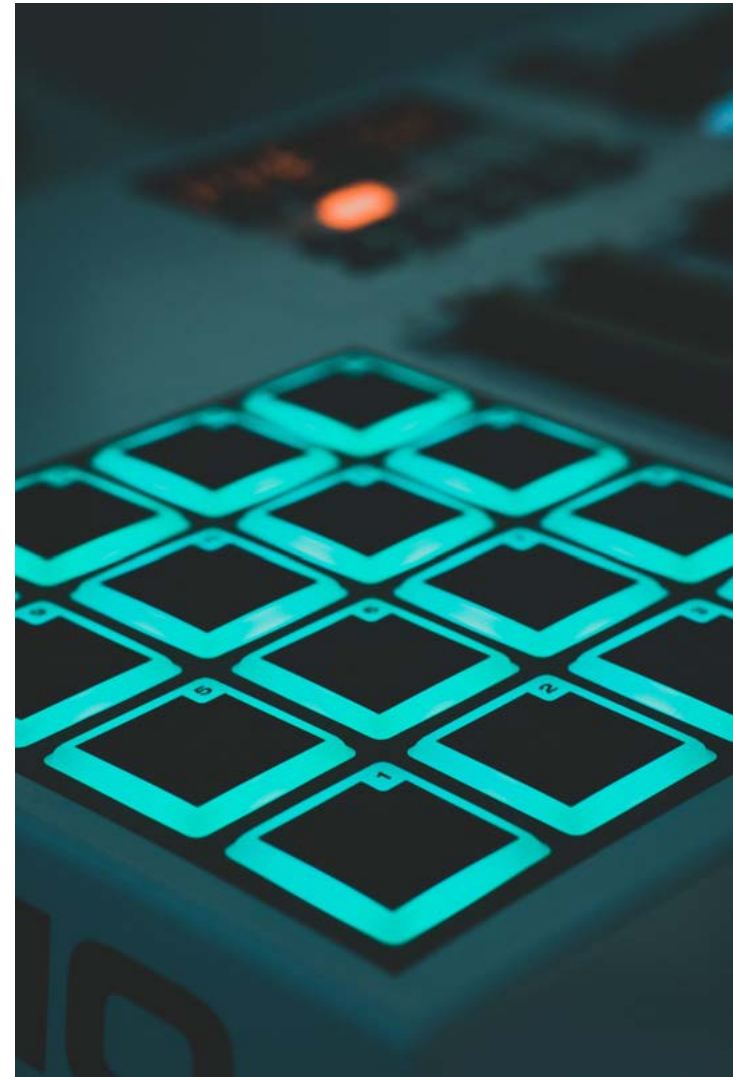


- Printing material → product
- Ink → waste ink is reused and mixed in other inks
- Solvent → exhauster / solvent can be reused 7-8 times
- No synthetic plastic material like duct tape or rubber blankets

# Developments & Innovations

# Development & Innovation

- Quality Controlle in copper
- ChromExtend
- Helio Pearl
- Gravure
- Laser
- Standardized ink sequence (7c)
- Special applications
- Water based inks
- Ecological printing materials



# Summary of the study

- Still highly competitive
- Only little waste in the life cycle
- Extreme high recycling rate
- A lot of innovations and developments



**Do good things and talk about it!**

