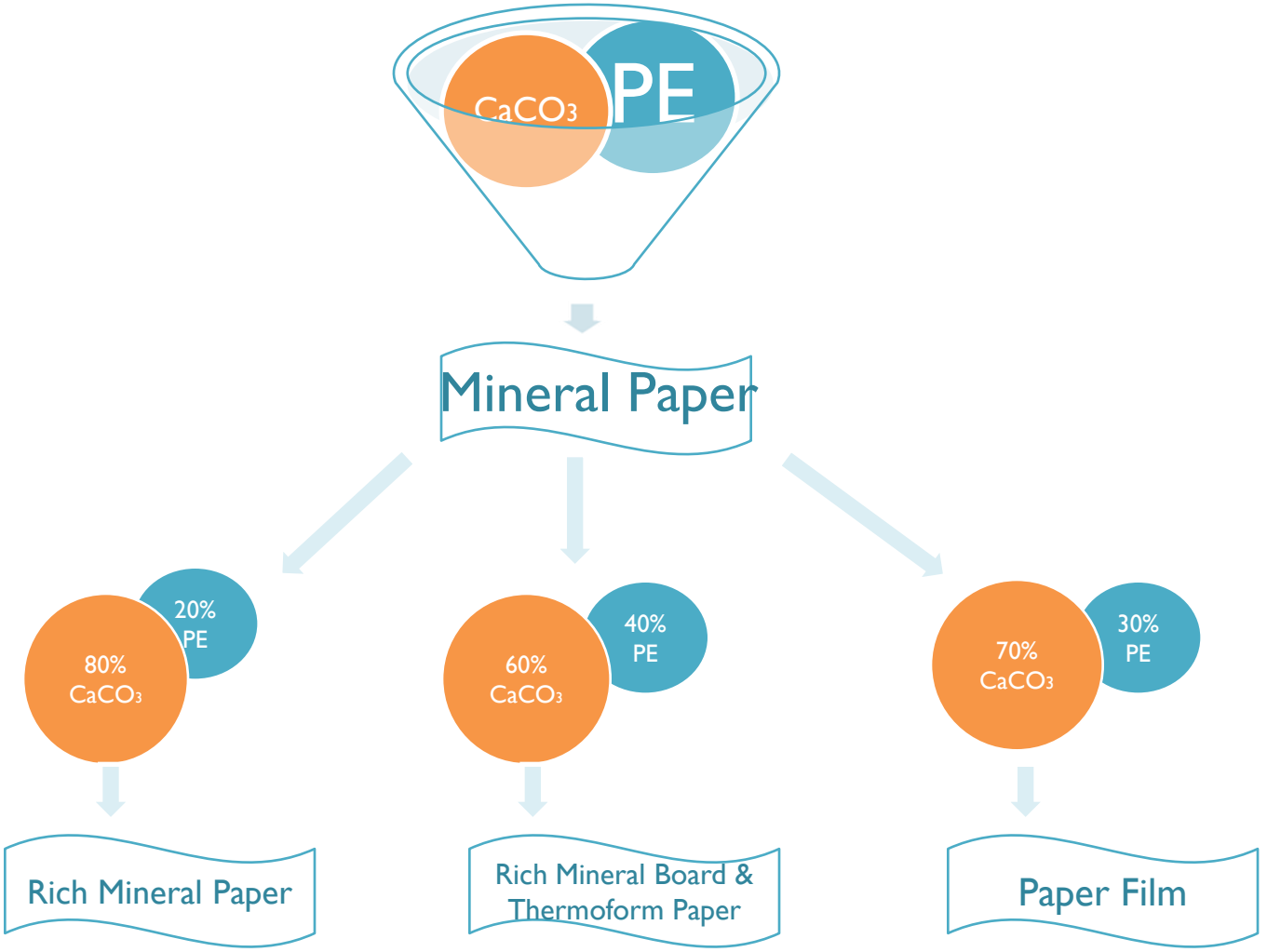
Recyclability / Sustainability

Stone Paper Material Composition



Stone Paper Production Process

Mineral ($CaCO_3$)

Grind to…

Mineral Powder

Add some…

PE Resin

Becomes…

Stone Paper® Pellets

Convert into…

Stone Paper® Material

Stone Paper Material Advantages

No Trees

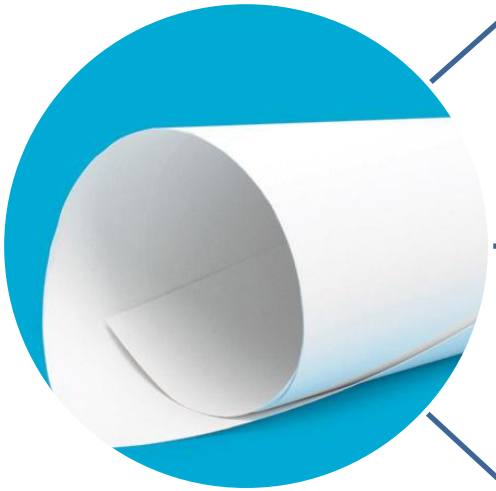
Less Water

Less Air Pollution

Photo Degradable

Easy to Recycle

Stone Paper Products



Paper

- Paper Bags
- Books
- Posters
- DM
- Cards
- Tags
- Wallpaper
- Boxes

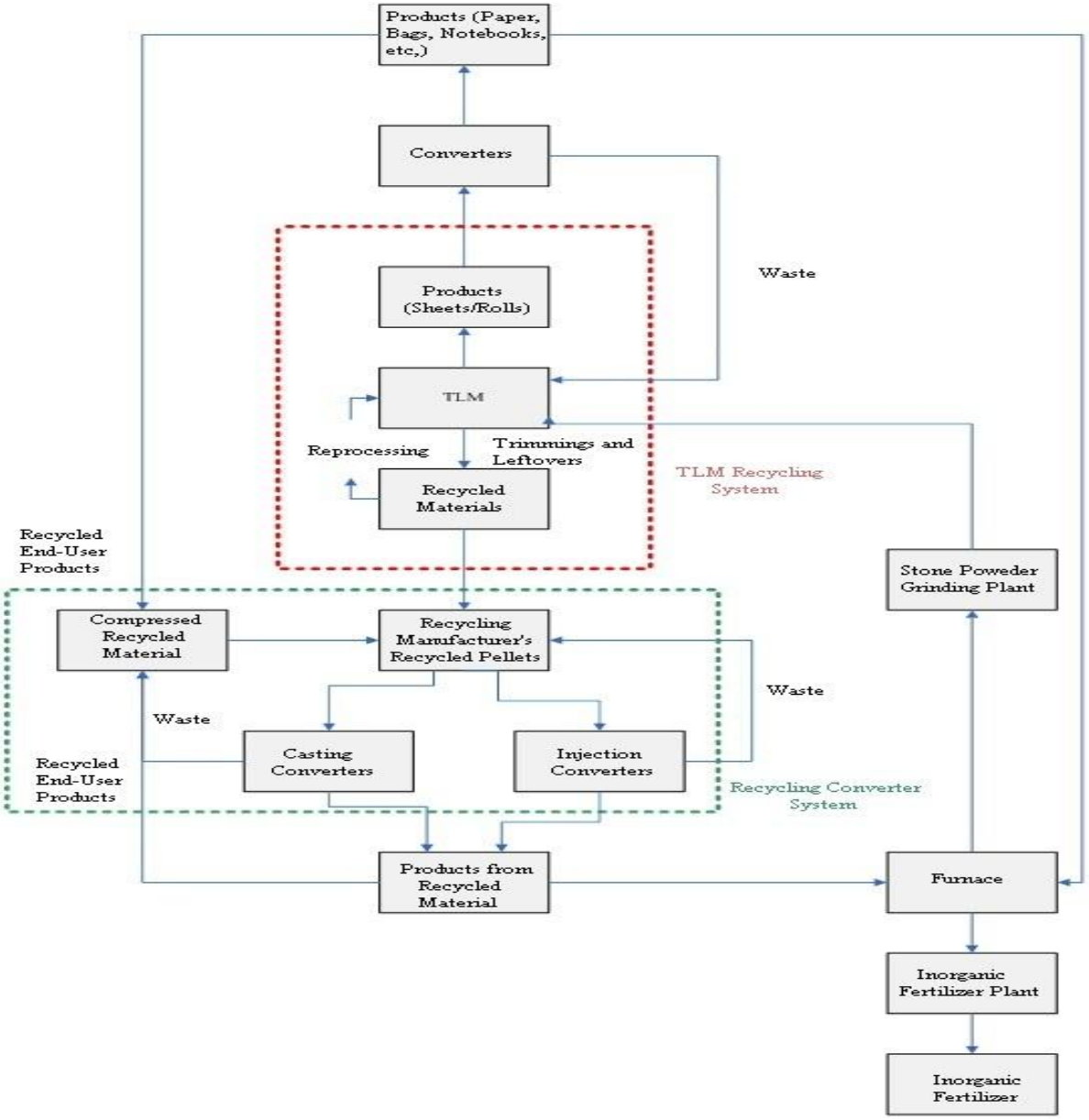
Plastic

- Boards
- Synthetic Leather
- Fans
- Lamp Shades
- Injections
- Castings
- Molds
- In-mold labels

Many More

- Limited only by imagination

Recycling Process



Recyclability

Reuse Material and Percentage	Recycle back to mill	Recycle via Plastic #2 or #7 channel	Photo-degrade	Furnace
Reuse PE %	98-100%	98-100%	0	0
Reuse Mineral Powder %	98-100%	98-100%	98-100%	98-100%
Reuse Mineral Paper %	98-100%	98-100%	60-80%	60-80%

Mill Recycling System

Stone Paper®
Material Trimmings

Grind to…

Mineral Powder

Add some…

And back to…

PE Resin

Becomes…

Recycled Pellets

Convert into…

R-Paper
R-Board

Recycling Converters System

Recycled Products

Grind to…

Mineral Powder

Add some…

And back to…

Injection/Casted into…

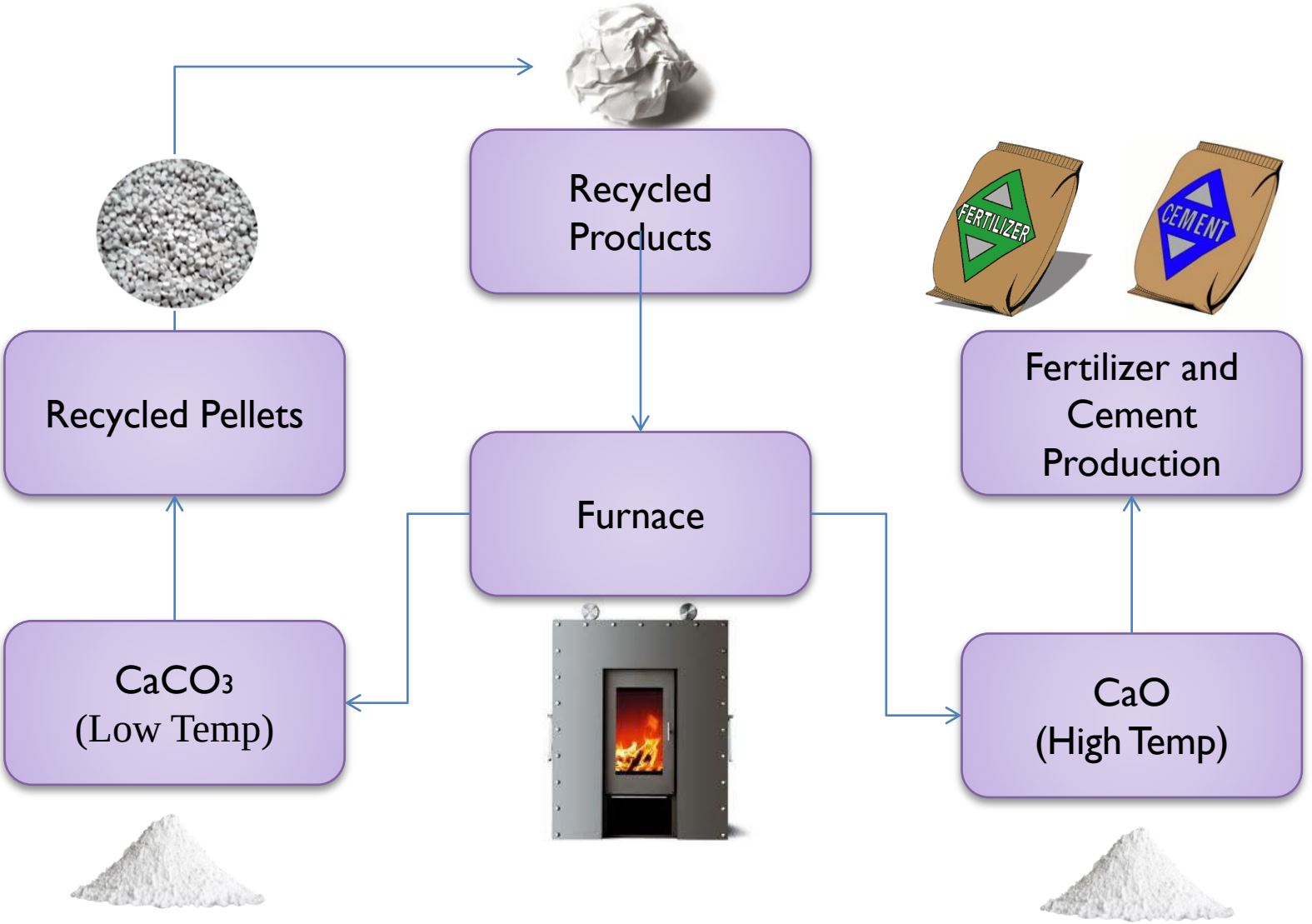
PE Resin

Becomes…

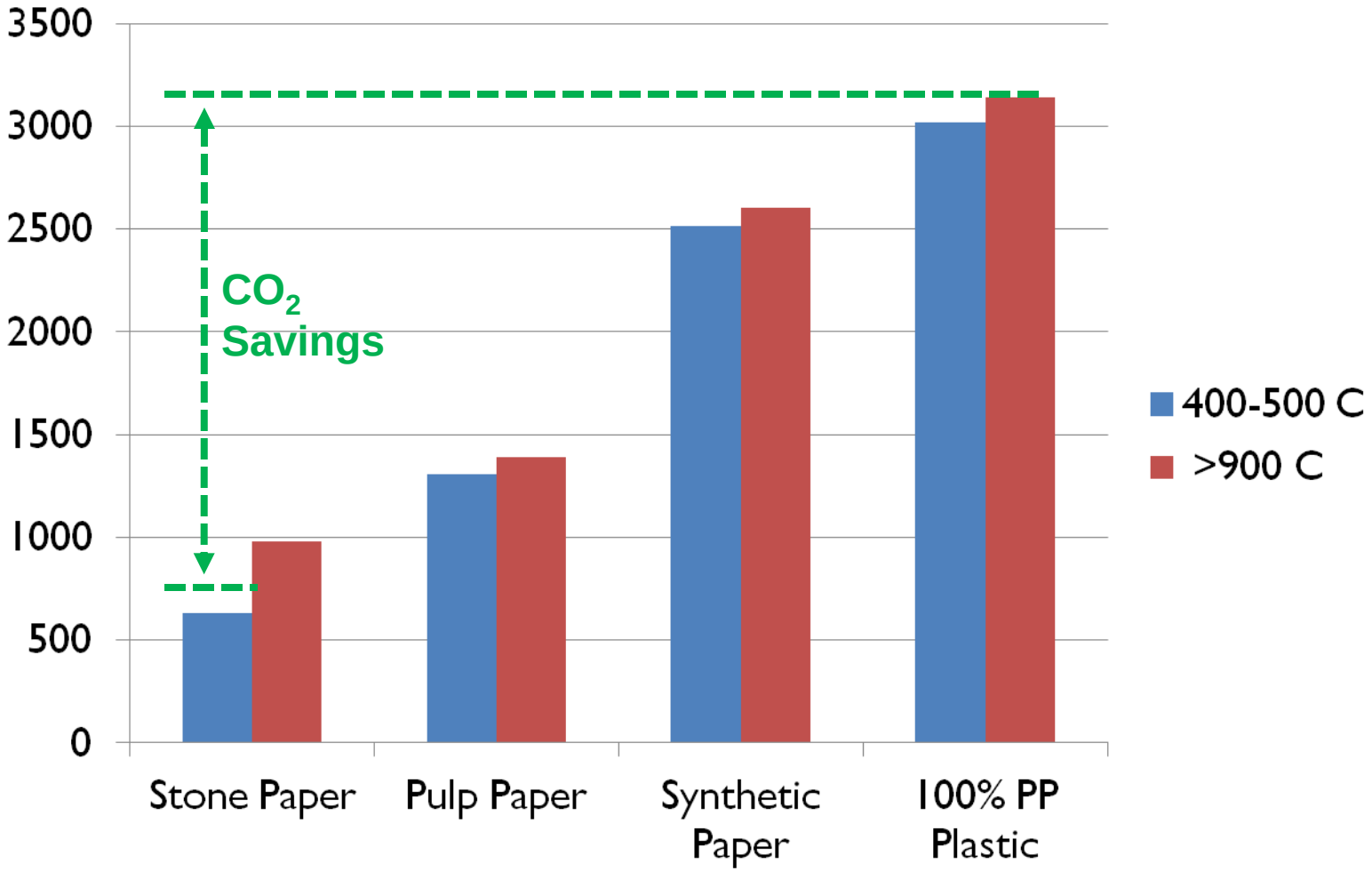
Recycled Pellets

R-Pellet

Incineration Recycling System

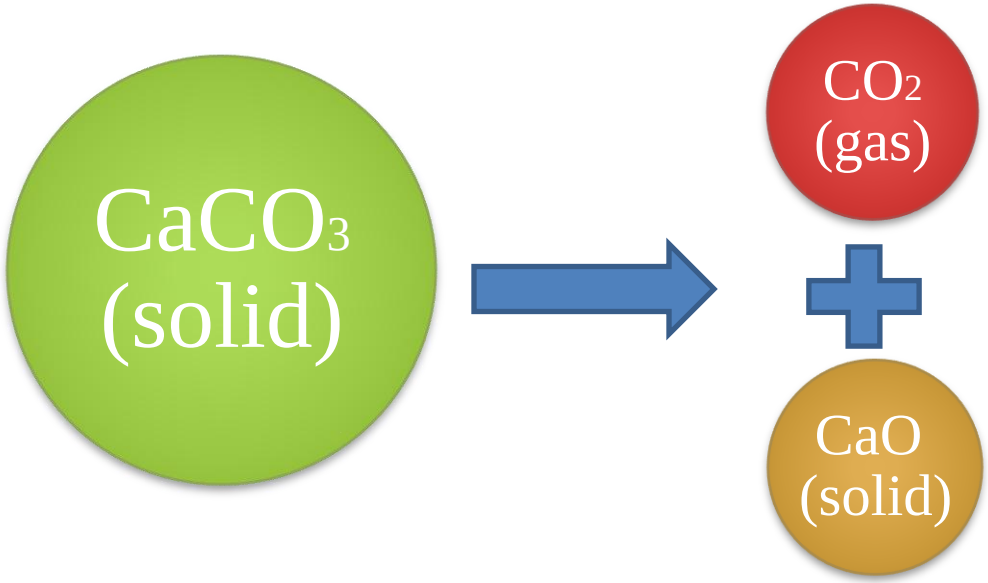


CO_2 Release



At 400-500C - Stone Paper® Material emits 2389kg/T less CO_2
At over 900C - Stone Paper® Material emits 2163kg/T less CO_2

Reuse CaCO3: Incineration / Furnace

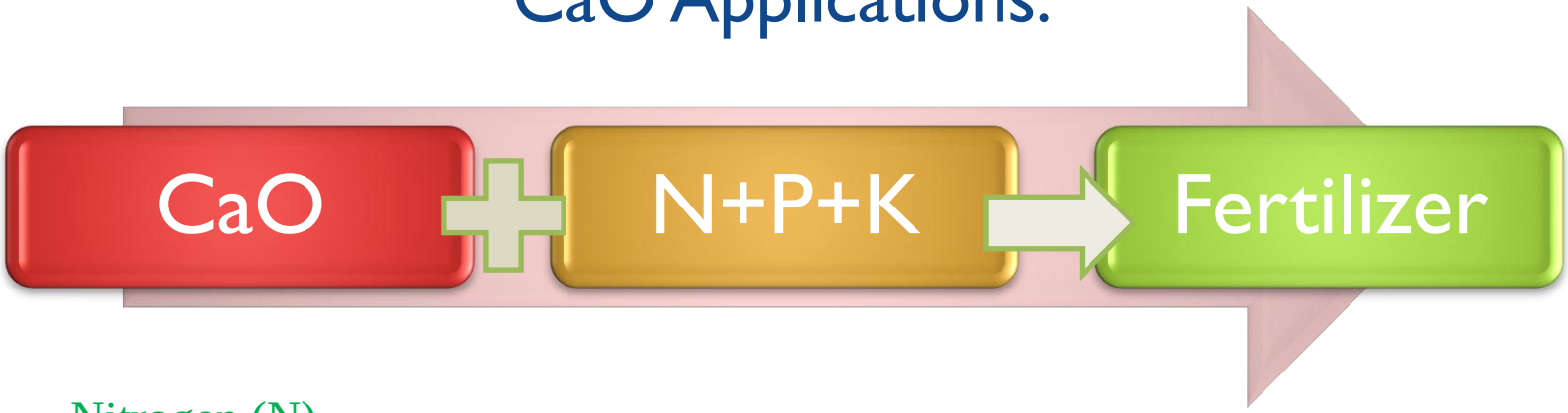


It releases carbon dioxide on heating (>840 °C for $CaCO_3$) to form calcium oxide, commonly called quicklime.

Reuse CaCO3:

Fertilizer & Cement Applications

CaO Applications:



Nitrogen (N)

Nitrogen is a chemical element which has the symbol N. Elemental nitrogen is a colourless, odourless, tasteless.

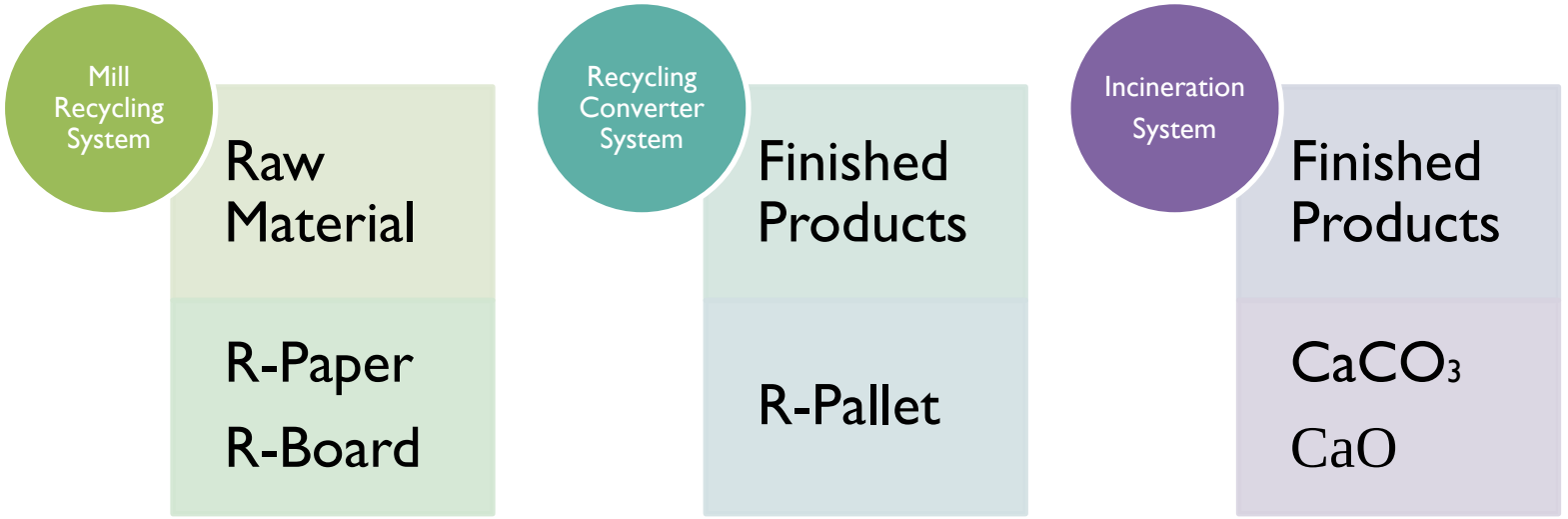
Phosphorus (P)

A multivalent nonmetal of the nitrogen group, phosphorus is commonly found in inorganic phosphate rocks

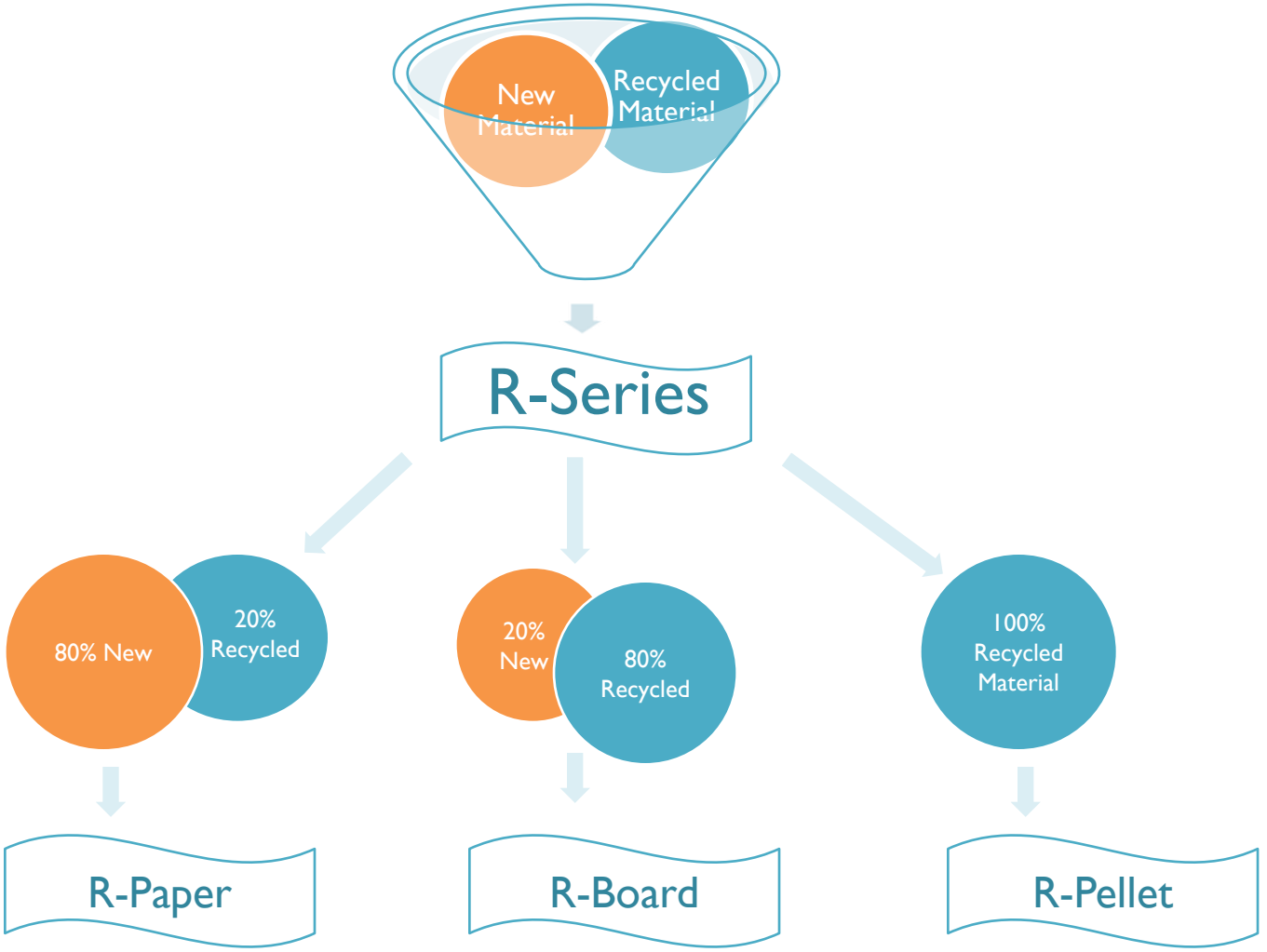
Potassium (K)

Elemental potassium is a soft silvery-white alkali metal that oxidizes rapidly in air and is very reactive with water, generating sufficient heat to ignite the hydrogen emitted in the reaction.

Introducing the R-Series



R-Series Material Composition



Conclusion

- Closed Loop
  - Mill Recycling System
    - In-House closed loop
    - Full control
  - Recycling Converters System
    - Out-of-House closed loop
    - Partnerships – semi-controlled
  - Incineration Recycling System
    - Partial loop – PE burns off
- Sustainable
  - Cradle to Cradle
    - $CaCO_3$, PE, Water, Energy
  - Continued Recycling
    - PE
      - 60-80%
    - $CaCO_3$
      - 98-100%