

# A holistic enhanced landfill mining project – The value chain of the NEW-MINE training network

## ELFM foreword

- Between 150,000 and 500,000 landfill sites in Europe
- 90% of them are “non-sanitary” landfills
- Remediation measures are very expensive
- With the increasing interest in sustainable waste management solutions, landfills represent an opportunity for a combined resource-recovery and remediation strategy**
  - Reduce future remediation costs
  - Reclaim valuable land
  - Unlock valuable resources.

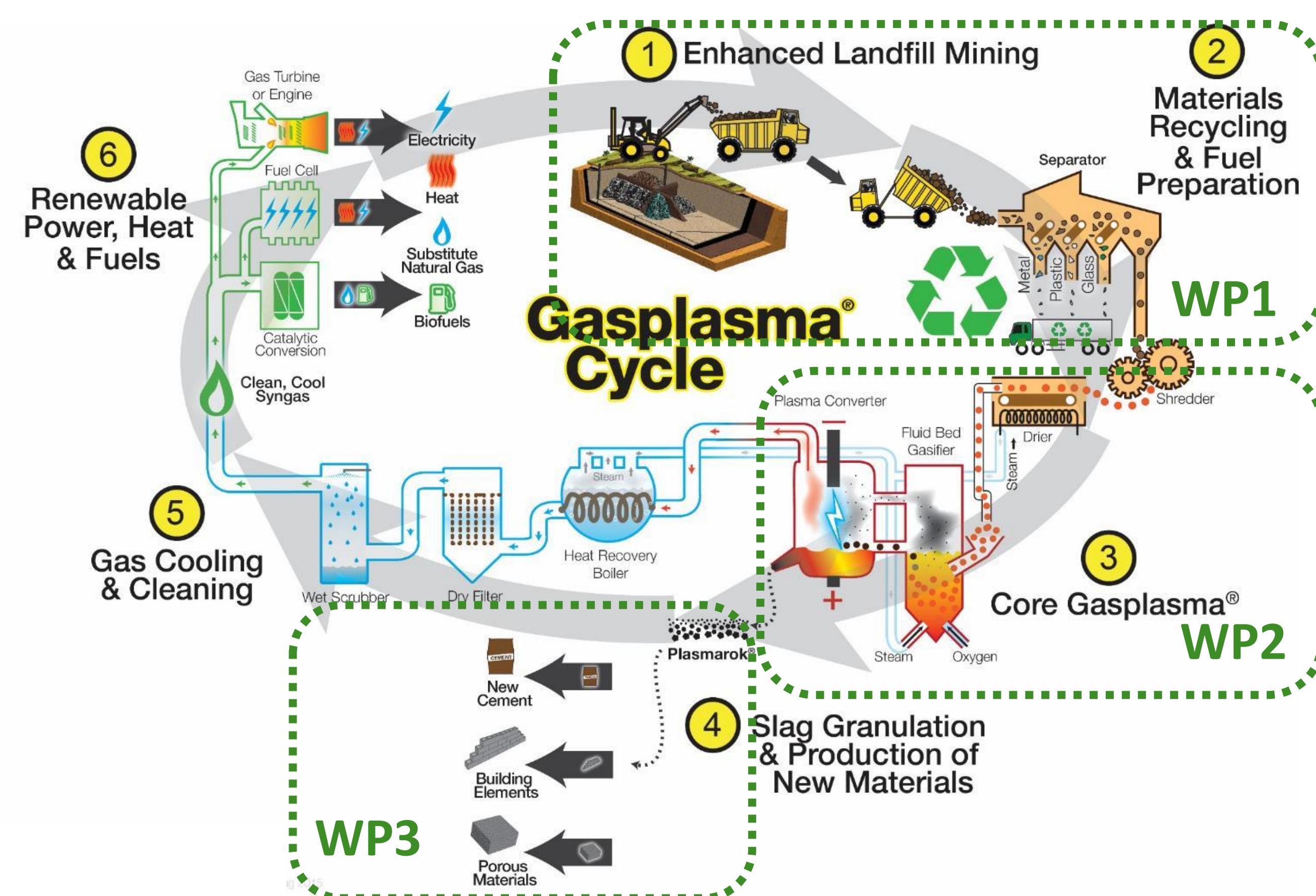
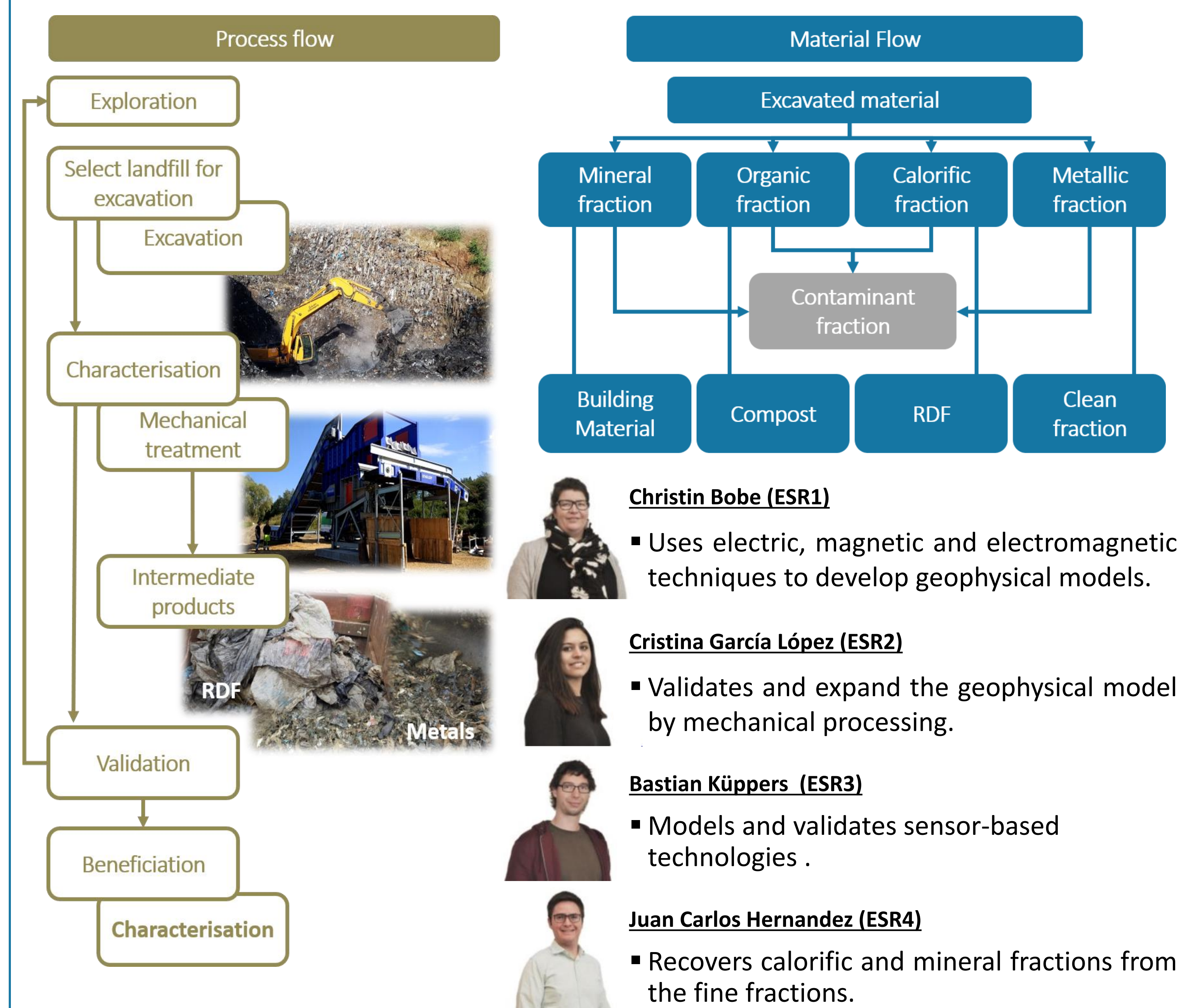


Figure 1: Gasplasma Cycle® from Advanced Plasma Power, JMR

- NEW-MINE trains 15 early-stage researchers (ESRs)** in all aspects of landfill mining in terms of both technological innovation and multi-criteria assessments:
- Advanced landfill exploration
  - Mechanical processing
  - Plasma/ solar/hybrid thermochemical conversion and upcycling
  - Valorization of residues into new low-carbon materials
  - Multi criteria assessment of combined resource-recovery/remediation methods.

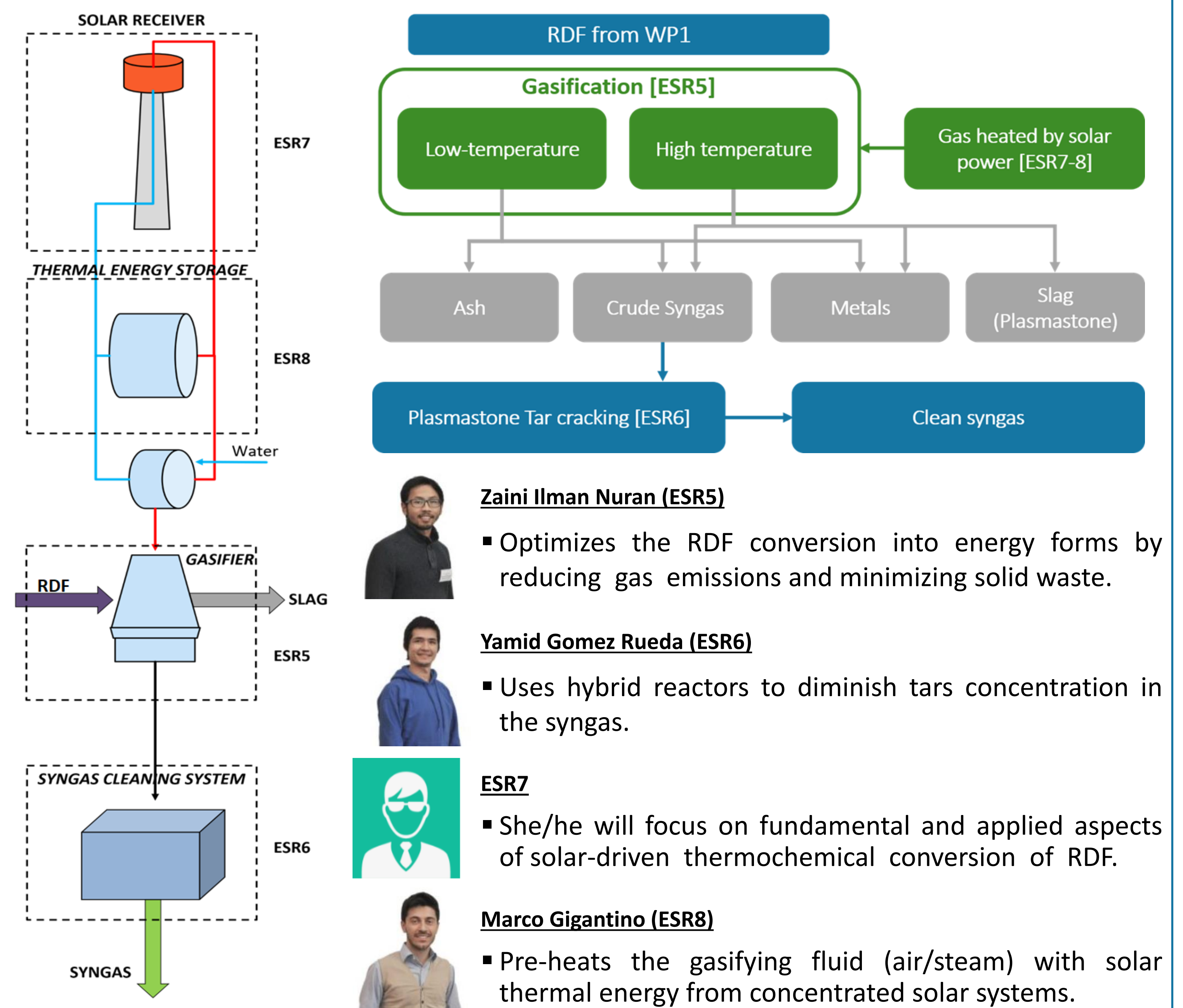
## Work Package 1

### Landfill Exploration, Excavation and Processing



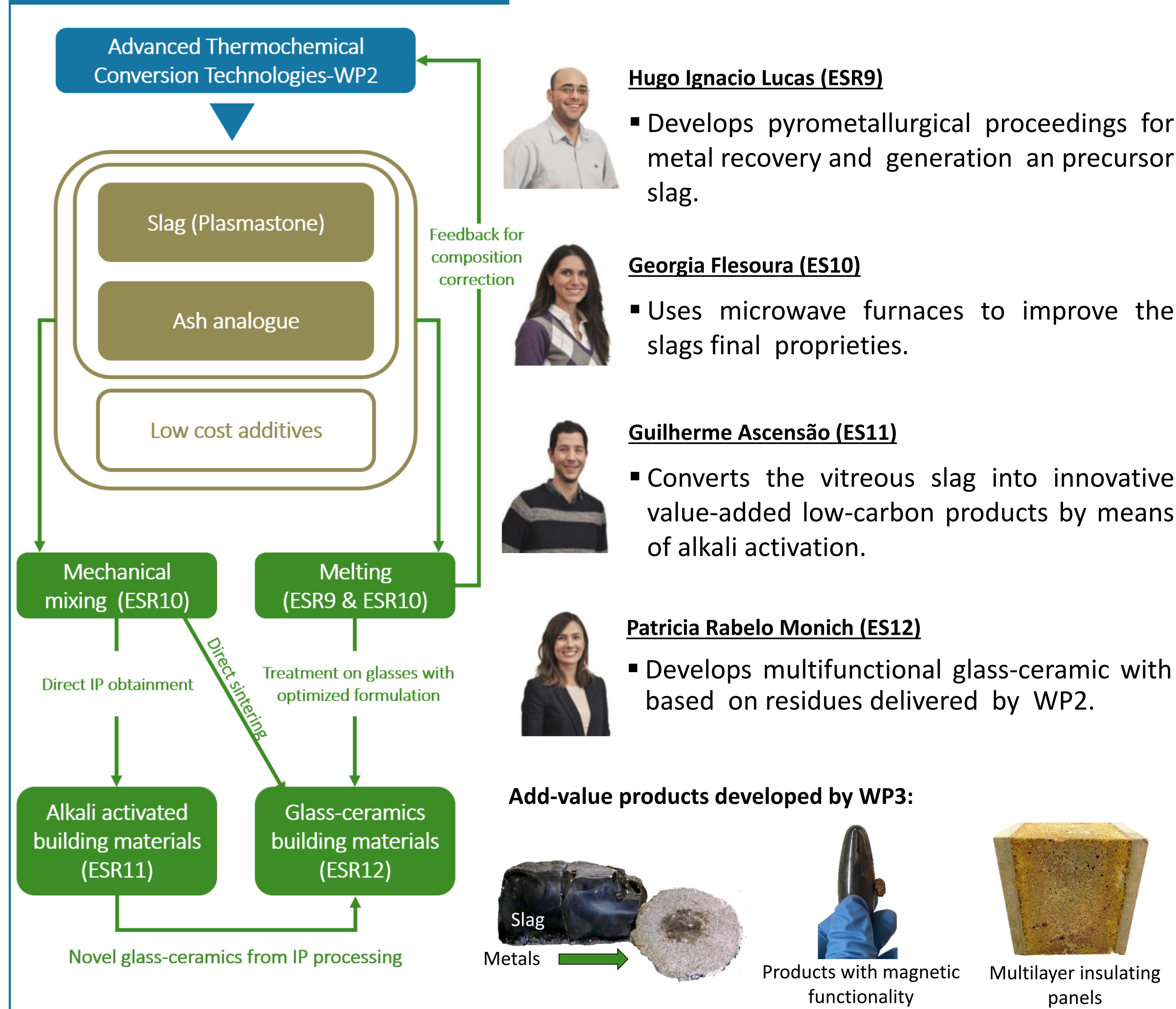
### Solar and Plasma thermochemical conversion

## Work Package 2



## Work Package 3

### Advanced upcycling of ELFM by-products



### Multi-Criteria Assessments for improved ELFM concepts, technologies and policies

## Work Package 4

