

GREENER BIOMASS-BASED COMPOSITE FOR EXCELLENT GREEN EXTRACTION TOOLS



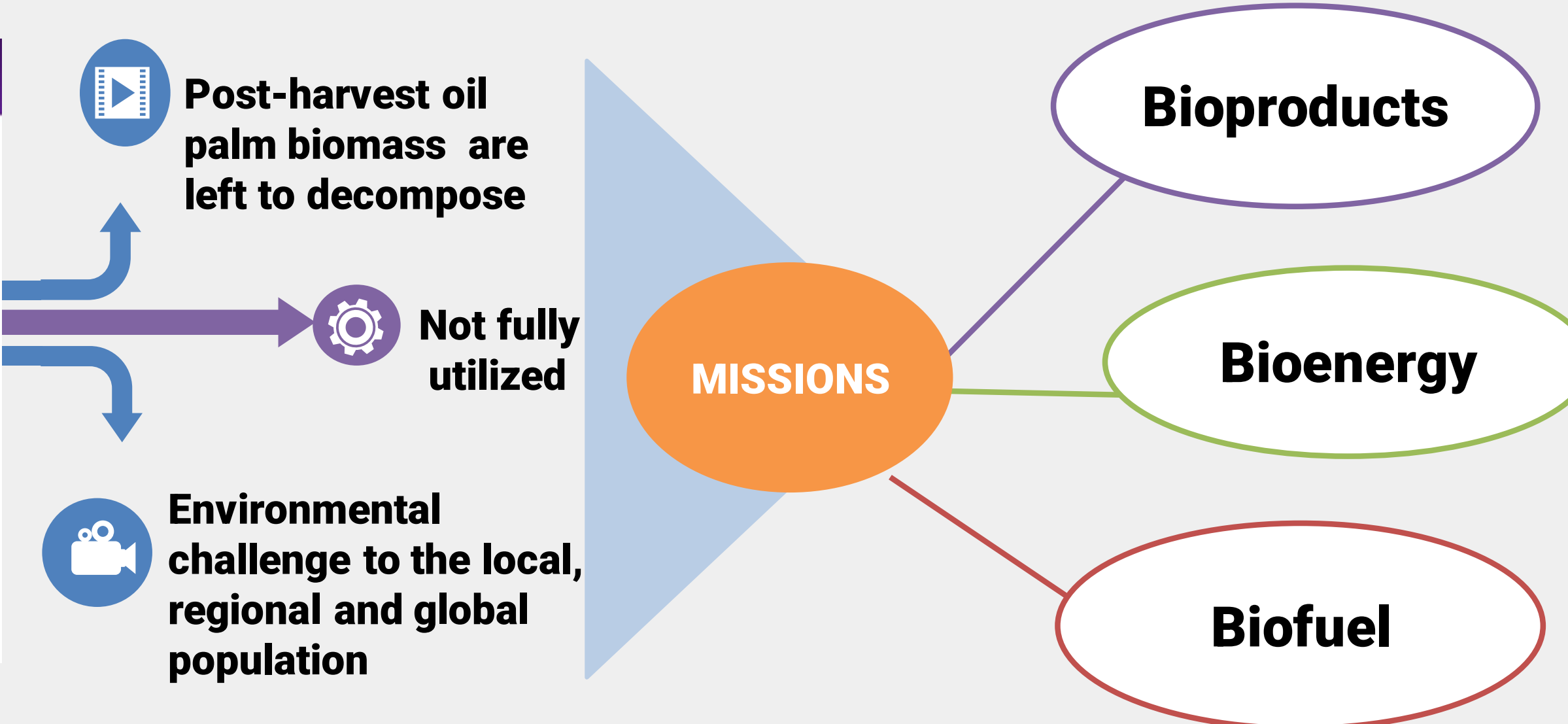
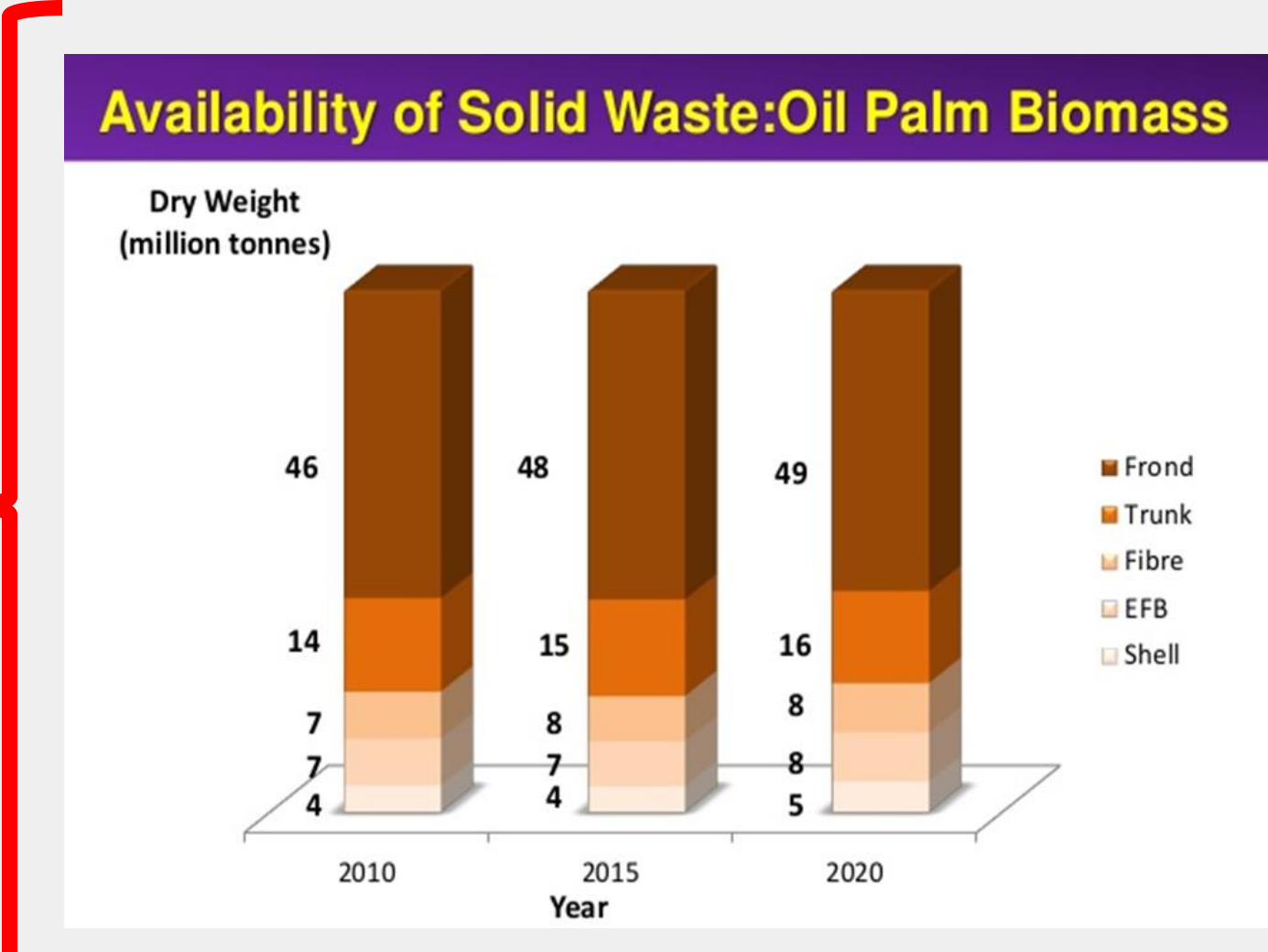
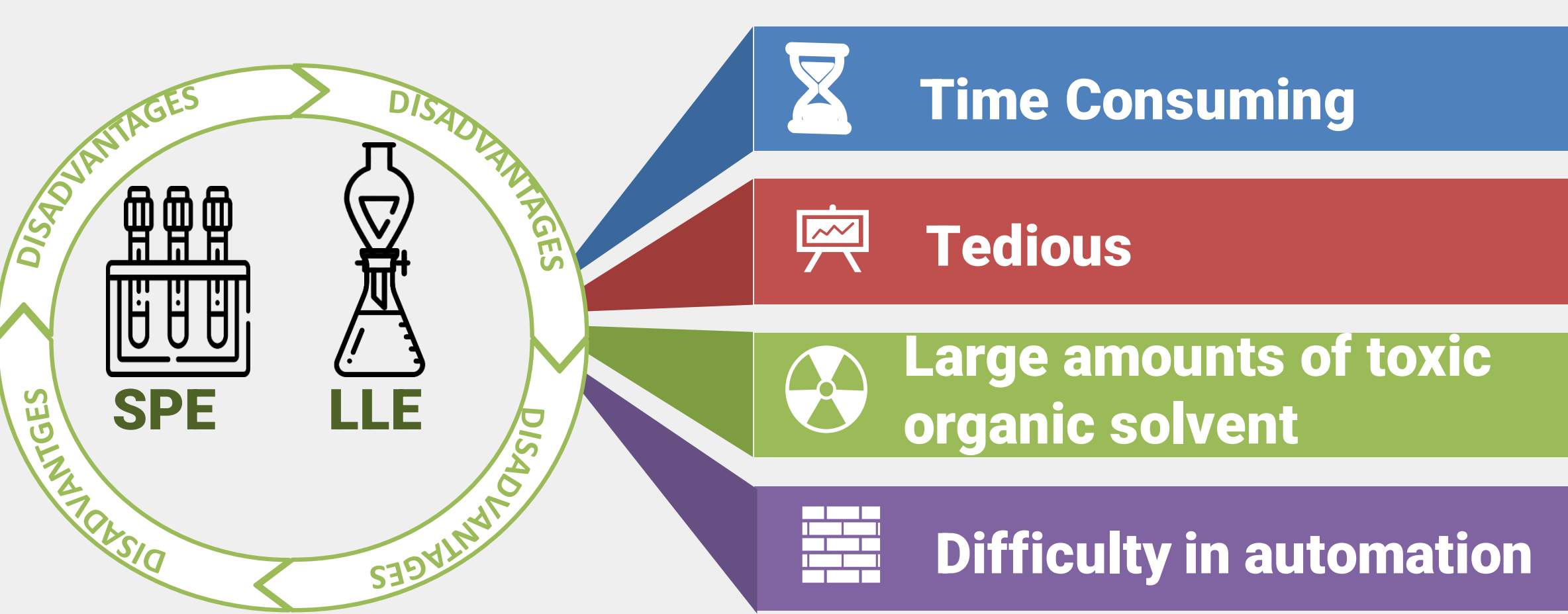
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Why Microextraction?

Green Analytical Chemistry

Renewable Biomass

CONVENTIONAL SAMPLE PREPARATION TECHNIQUES



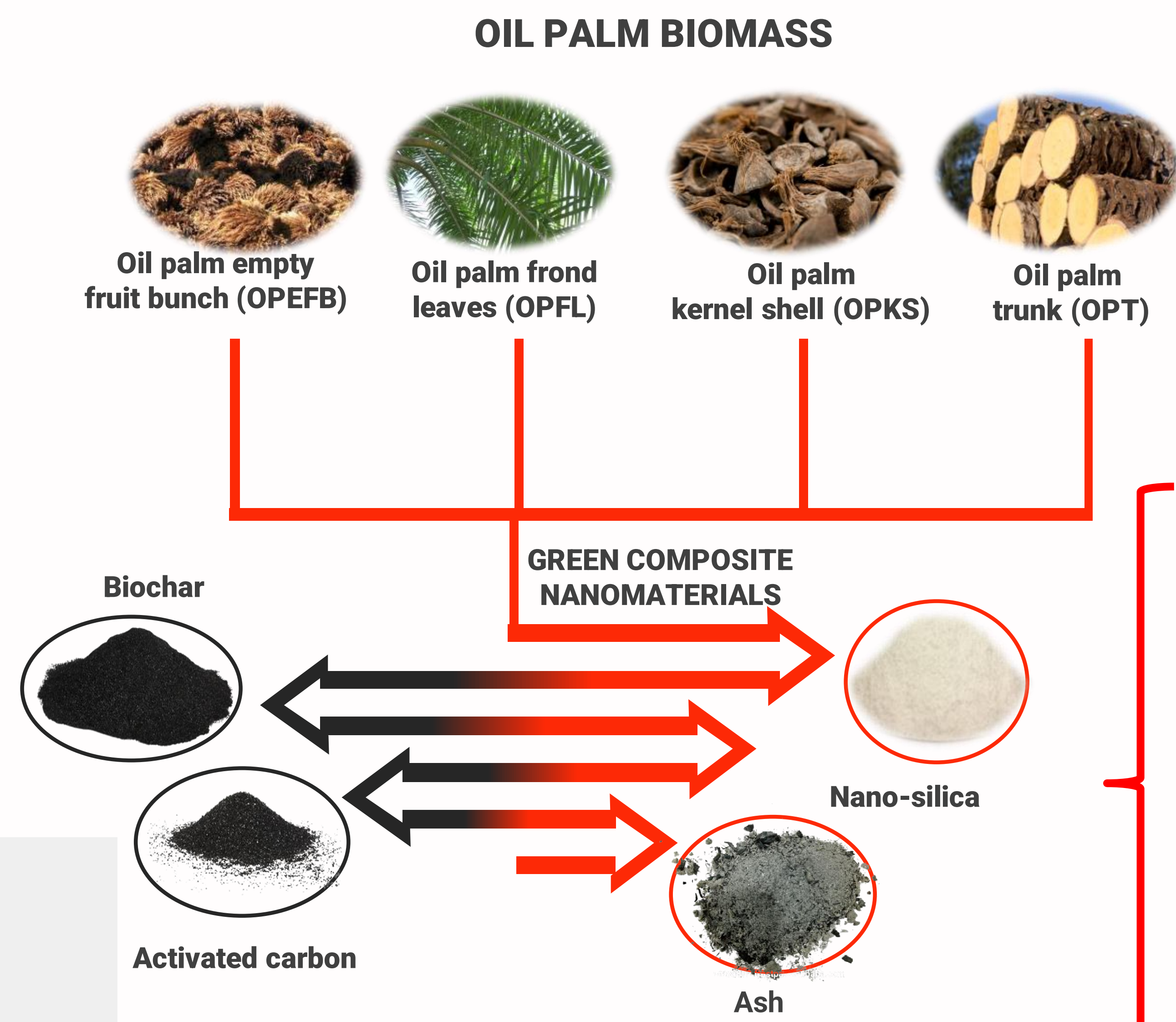
Objectives

- To exploit the massive abundance of Malaysia's oil palm biomass for valuable products
- To investigate production of adsorbent from different oil palm part such as activated carbon, char, ash, silica and nanocellulose and serve as new sorbent materials for trace analysis of organic and inorganic environmental pollutants.
- To study the impact of method in extraction of nanomaterials from oil palm biomass

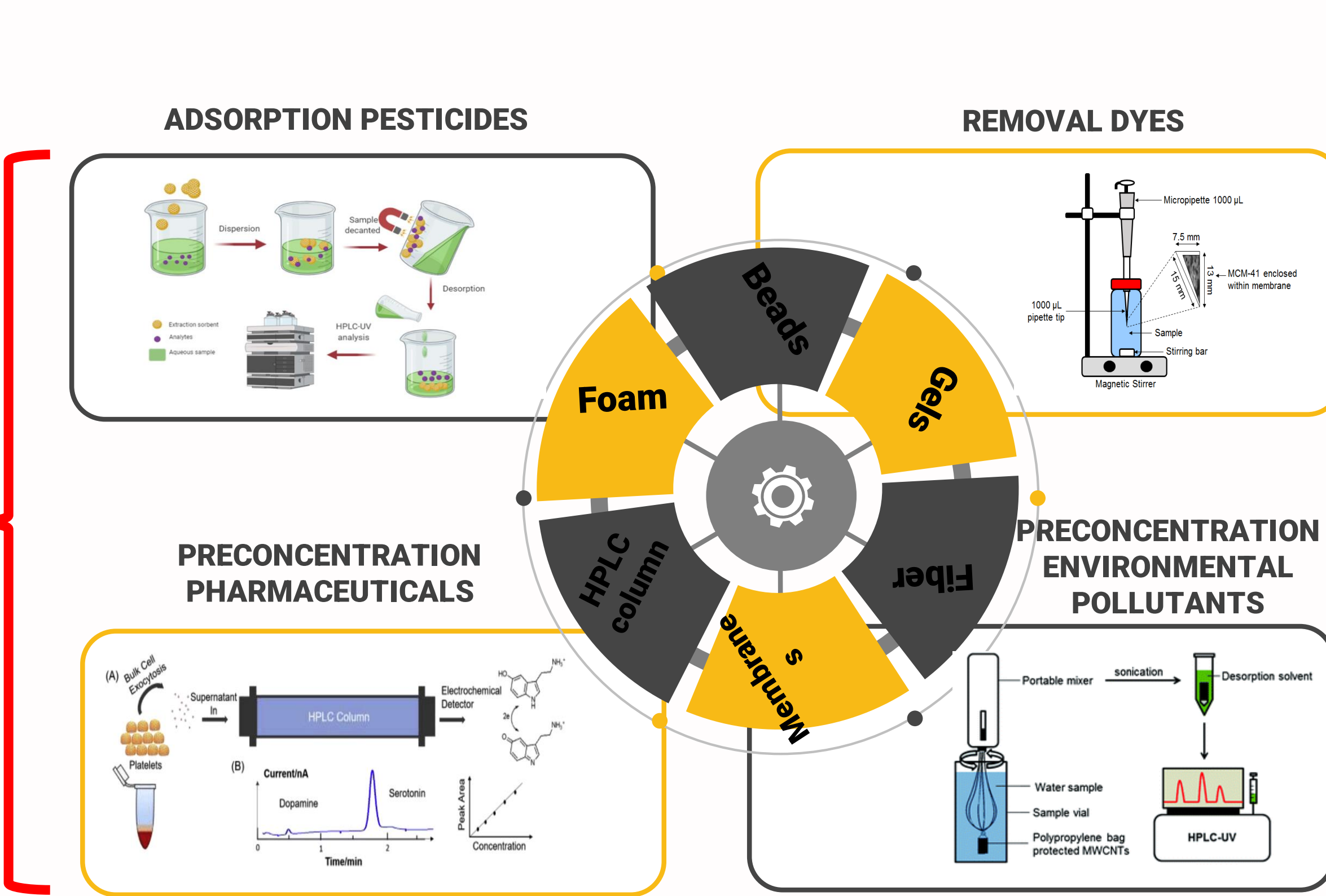
Acknowledgement

- Universiti Teknologi Mara
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- Analytical Chemistry Groups

Method Development



TRACE ANALYSIS USING GREEN EXTRACTION TOOLS



Conclusion

The outcome of this research will lead to the exploration of more advanced nanomaterials for environmental application where it comply with the objectives of Green Chemistry and Sustainable Development Goals (SDGs), where the research community has to reorient its activities in line with industry needs to convert waste to wealth and minimizes the negative impacts on human activities.