



High Performance Bio-based Functional Coatings for Wood and Decorative Applications

Social impacts and acceptance study of biobased solutions in Perfecoat: Methodology and preliminary results

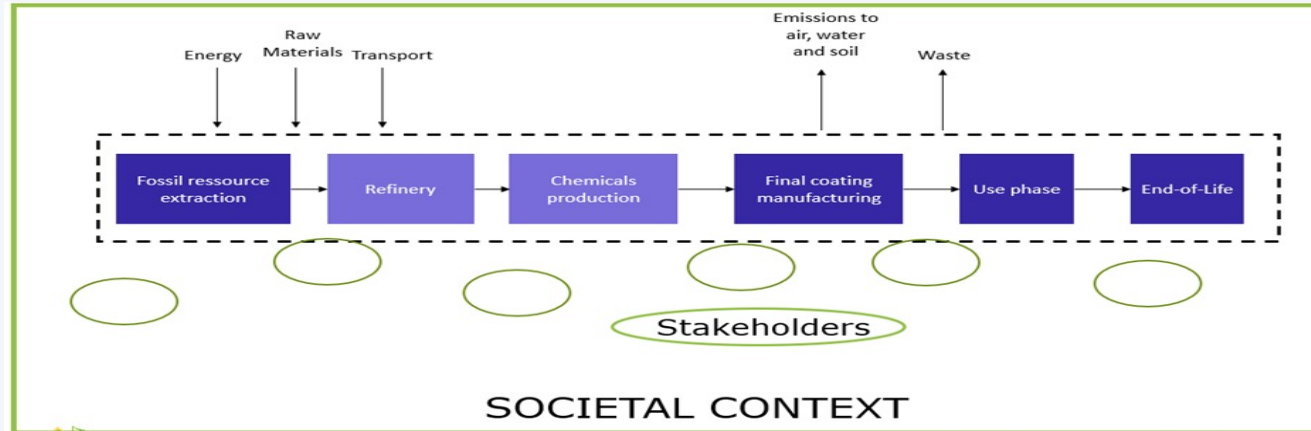
10.06.2024, Assiya Kenzhegaliyeva



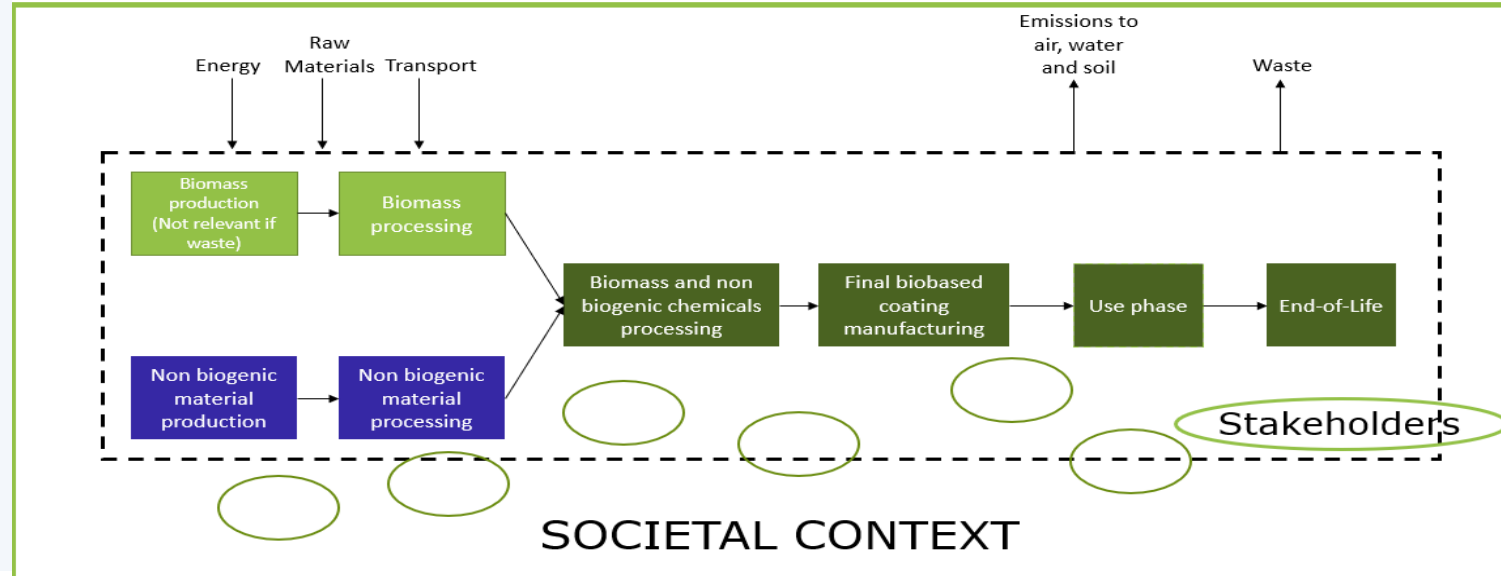
This project receives funding from the Bio-based Industries Joint Undertaking (JU) under the European Union's Horizon 2020 research and innovation programme under grant agreement No 101022370. The JU receives support from the European Union's Horizon 2020 research and innovation programme and the Bio-based Industries Consortium.

Identify and assess the potential social impacts of the new solutions, with a special focus on social acceptance and perceived transition potential.

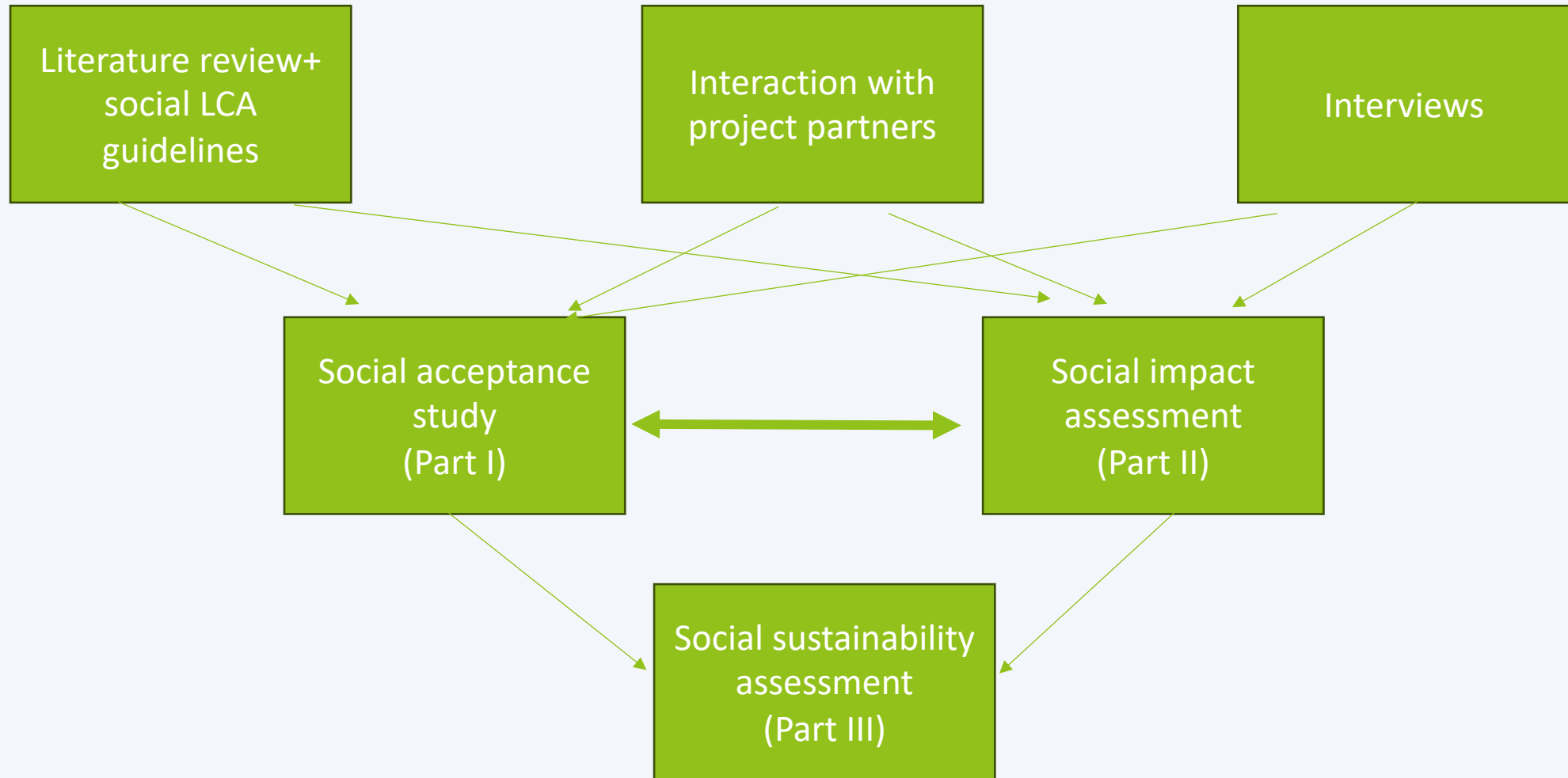
Fossil-based coatings



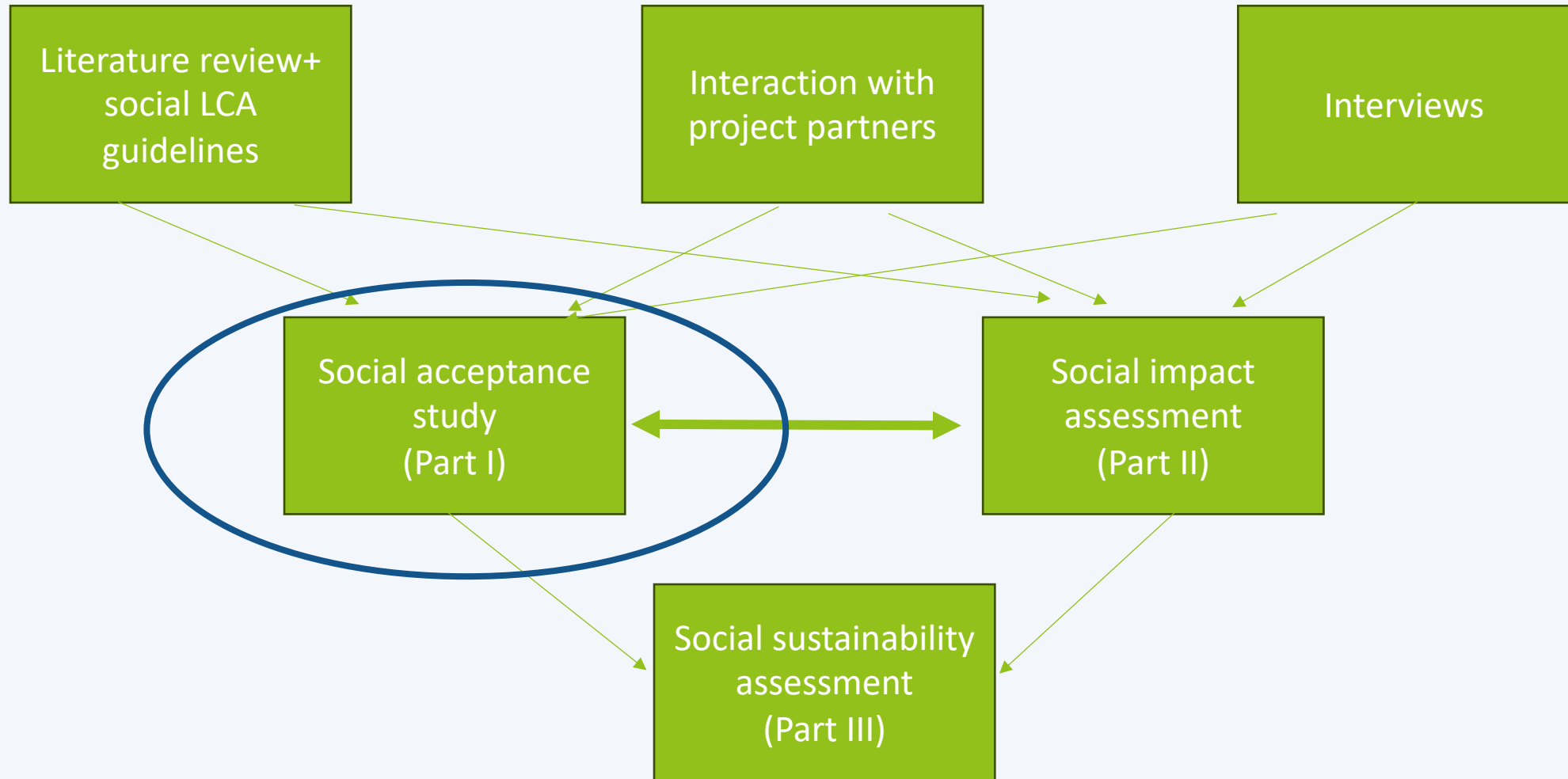
Bio-based coatings



Social sustainability: methodology



Social sustainability: methodology



- **Socio-political acceptance:**

- Drivers at an overarching policy level (e.g., EU Green Deal, bioeconomy strategy and circular economy action plan of the EU, etc.)
- Perceived lack of direct incentives
- Mixed effects of eco-labels



Images from PowerPoint archive

- **Market acceptance:**

- Increased importance to document sustainability
- Lack of explicit and specific sustainability targets, to guide suppliers – with some exceptions
- High costs and prices constitute a major barrier
- Users still need to be convinced on several coating functionalities.
- For the value chain actors, compatibility of new, bio-based solutions with the existing plant and production processes is crucial



Image from PowerPoint archive

- **Community acceptance:**

- Land use and the risk of indirect land use change
- Reliable supply of sustainably produced biomass is necessary,
- Transparency regarding raw material origin
- Assumptions regarding human rights and labour rights
- Varying requirements among customers on aspects that could influence community acceptance

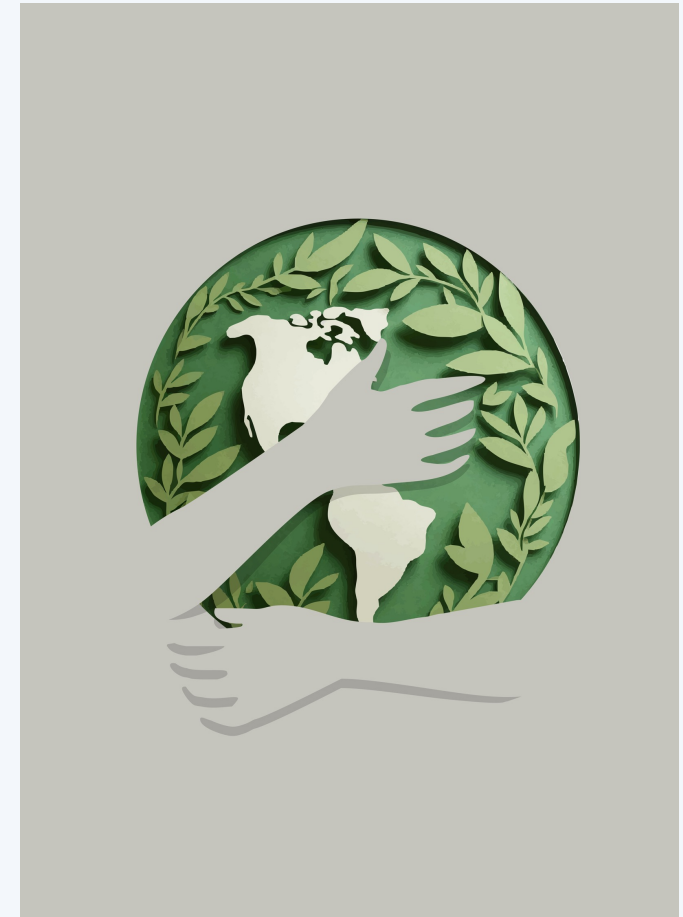
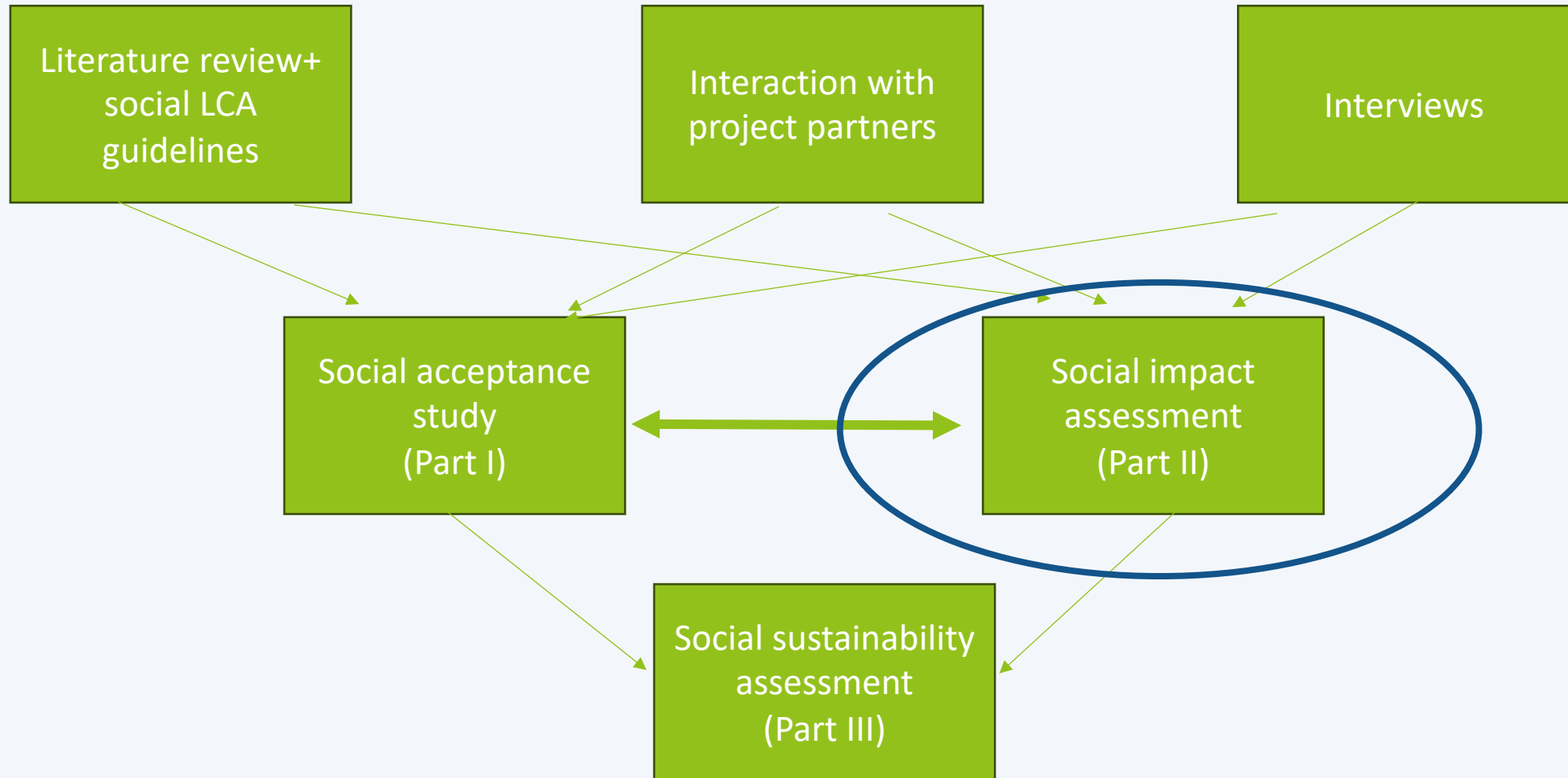


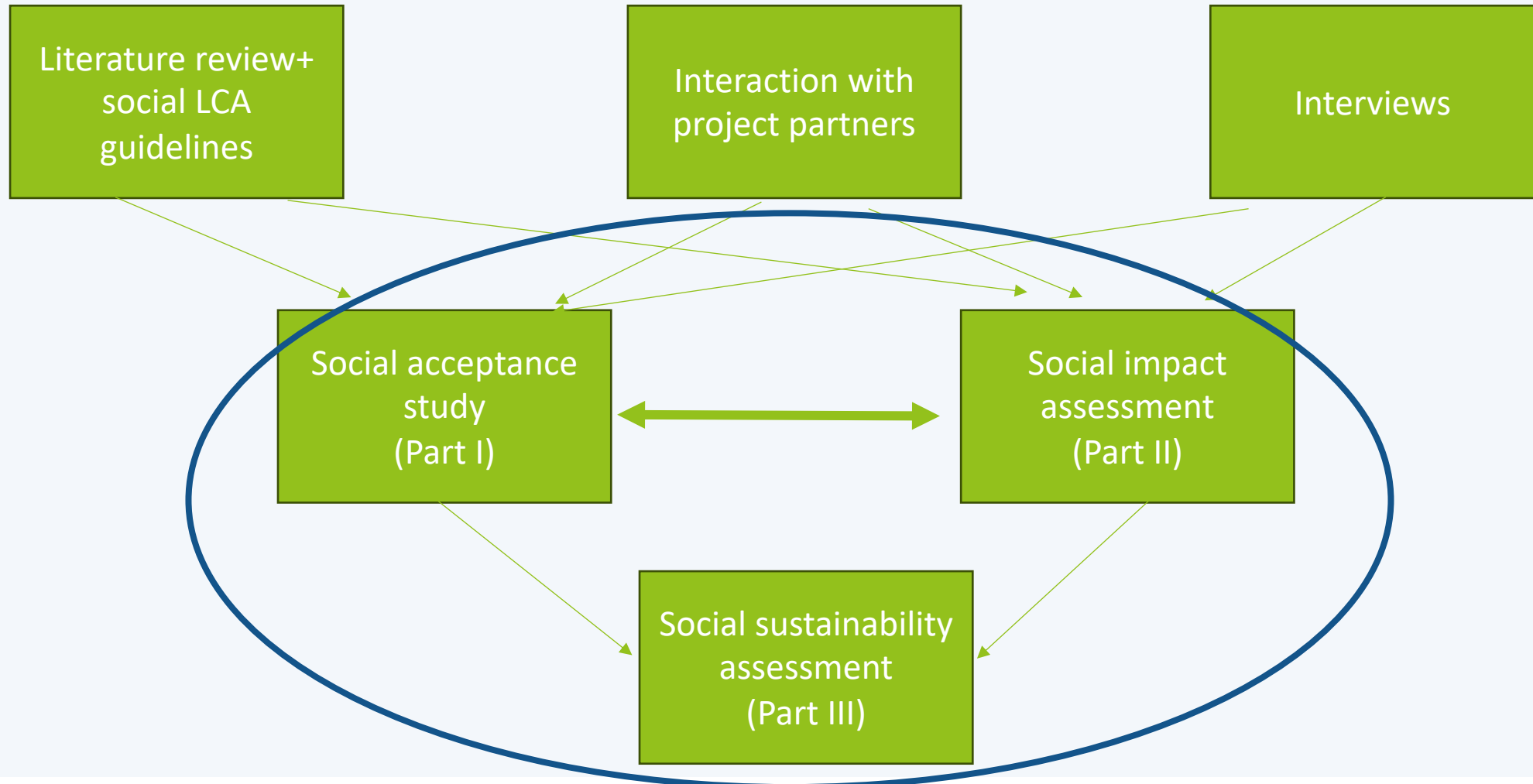
Image from PowerPoint archive

Social sustainability: methodology



Value chain segment	Stakeholder category	Impact category	Impact subcategory
Biomass production and collection	Local community	Contribution to local economy	contribution to economic development contribution to employment
	General society	Food security	food security
Biomass processing	Local community	Contribution to local economy	contribution to economic development contribution to employment
			health and safety of workers
Final coating manufacturing	Workers	Health and safety	contribution to employment
	Local community	Contribution to local economy	health and safety of end-users
Use	Consumers	Health and safety	feedback mechanisms transparency
		Social acceptance	health and safety of local community
End-of-life	Local community	Health and safety	

Social sustainability – current status



Final reflections

- Few studies on social sustainability of the biobased coatings
- Challenging data access
- Complex value chains
- Early-stage development
- Increasing focus on social sustainability and sustainability in general
- Close follow-up and interaction are crucial

Thank you for your attention !