



CILCA 2019

Conferencia Internacional Análisis de Ciclo de Vida  
15-19 Julio, Cartago - Costa Rica



# DEVELOPMENT OF NATIONAL LCA DATABASE ROADMAPS – *EXPERIENCE IN LAT*

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# A roadmap?



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How do we get there from here?

# Starting point

- Project commissioned by UN Environment through the [Life Cycle Initiative](#), under the [Resource Efficiency through Application of Life cycle thinking \(REAL\)](#) project, funded by European Commission
- Duration: September 2018 – July 2018
- Project objectives
  - To develop national LCA database roadmaps in different countries, including improving access to available data where possible
  - To contribute to the development of the [Technical Helpdesk for National LCA Databases](#) to support database development globally

With financial support from:



Commissioned by:



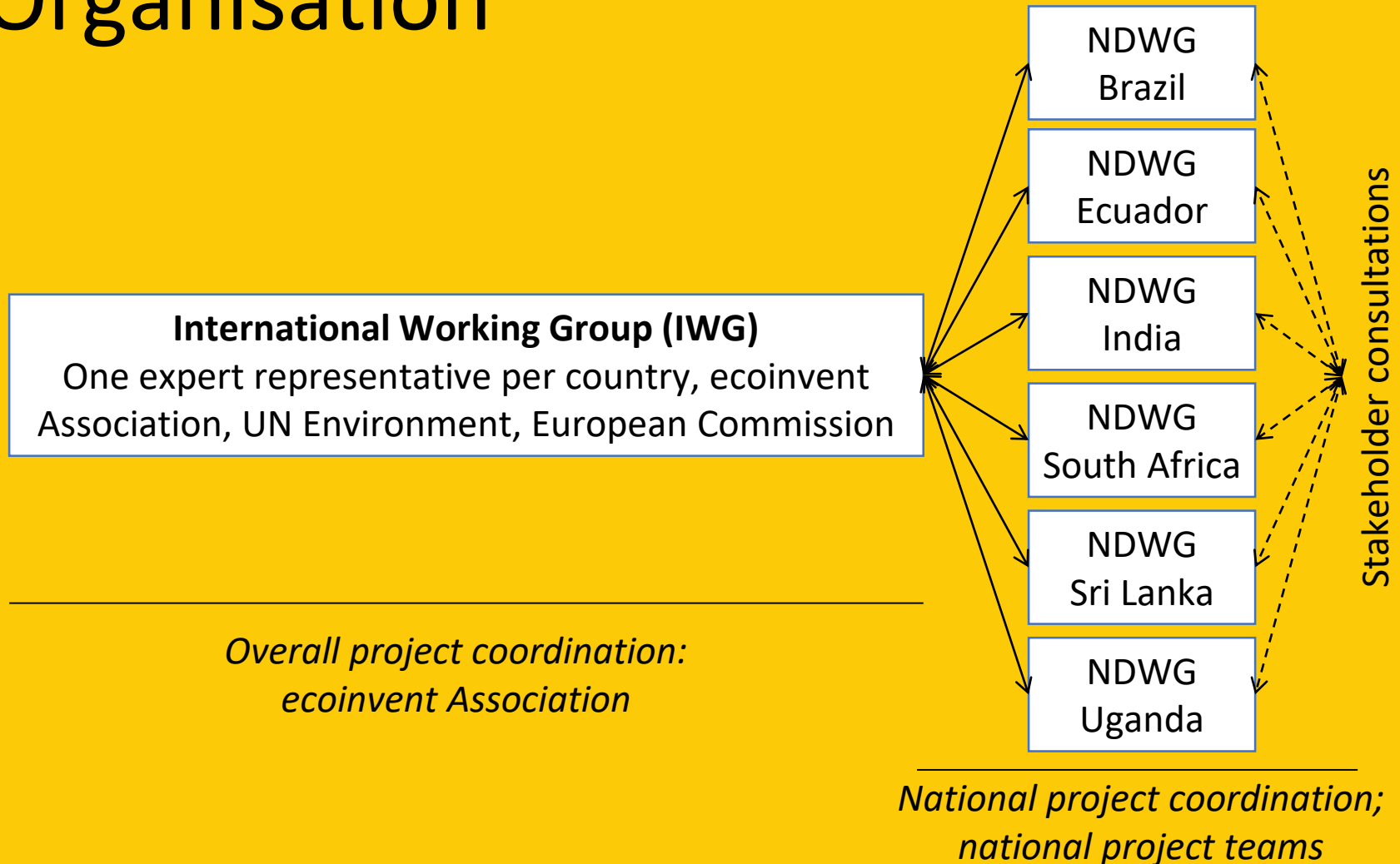
Life Cycle Initiative

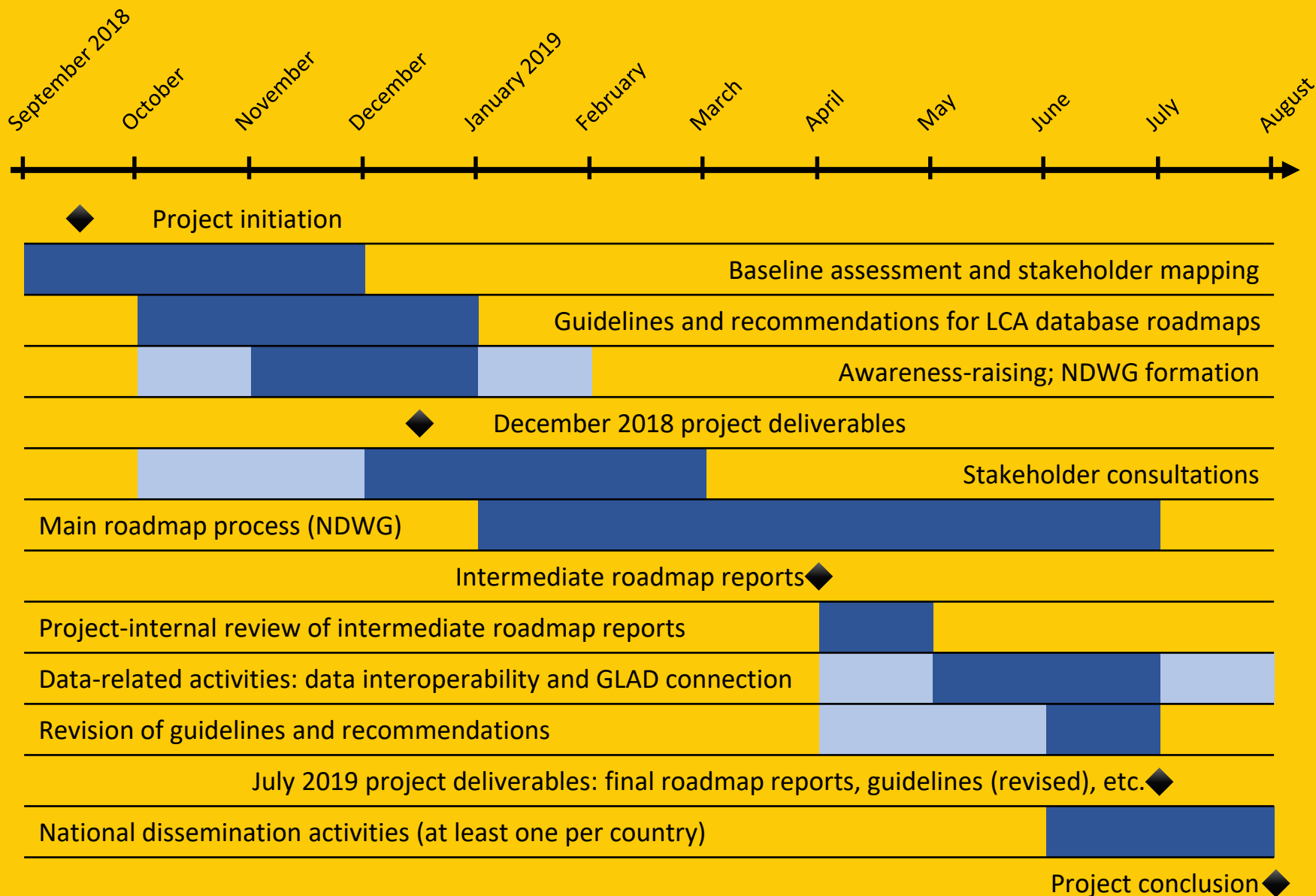
# Project consortium

- **Project lead:** ecoinvent Association, Switzerland
- **Brazil:** Universidade Tecnológica Federal do Paraná (UTFPR)
- **Ecuador:** Escuela Superior Politécnica del Litoral (ESPOL); Escuela Politécnica Nacional (EPN); Ministry of Environment; Conservación Internacional Ecuador
- **India:** National Environmental Engineering Research Institute (NEERI); Confederation of Indian Industry (CII); Dr. Sanjeevan Bajaj, independent consultant
- **South Africa:** University of Cape Town (UCT)
- **Sri Lanka:** National Cleaner Production Centre Sri Lanka (NCPC-SL)
- **Uganda:** Uganda LCA Network

# Organisation

National database working groups (NDWGs)









# Key challenges and insights

Key challenge: What is the intended purpose of a national LCA database?

- Who are the intended users? Value created?
- How to link expected users+value to funding opportunities?
- 'Data repository' generally the starting point, but perhaps also sufficient?

Main insights

- The most suitable governance structure of national LCA database is case-specific!
- Focus initially on core sectors and creating value for key users/applications
- Other data sources/basis required for 'functionality' – data interoperability is crucial!
- National LCA database as vehicles to mainstreaming and broadening life cycle thinking!

# Project outputs

- Baseline assessment and stakeholder mapping reports (x6)
- Guidelines and recommendations for establishing national LCA database roadmaps
- 67 key stakeholders (on average 11 per country) engaged through NDWGs
- Roadmap reports for the development of national LCA databases (x6)
- Some 80 pilot datasets prepared for connection to GLAD (in BR, LK, IN, ZA)
- 13 experts (confirmed or application pending) and 21 members signed up to *Technical Helpdesk for LCA Database*
- (Roadmap reports and other information material from the project will be shared over the *Technical Helpdesk* upon acceptance)



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# Rota Estratégica de Base de Dados Nacional de Avaliação do Ciclo de Vida

## Team:

- Cássia Maria Lie Ugaya, UTFPR
- Cristiane Sampaio, Inmetro
- Marília I. S. Follegatti, Embrapa
- Tiago Braga, IBICT
- Thiago Rodrigues, IBICT

## Supported by:

Bruno Prodoscimi, MCTIC  
Luiz Gustavo Ortega, Rede ACV  
Juliana Gerhardt, IBICT  
José Paulo Savioli, UTFPR  
Gil Anderi, ABCV

# Brazilian National Database Working Group

MINISTÉRIO DA  
CIÊNCIA, TECNOLOGIA,  
INOVAÇÕES E COMUNICAÇÕES



# LCA in Brazil

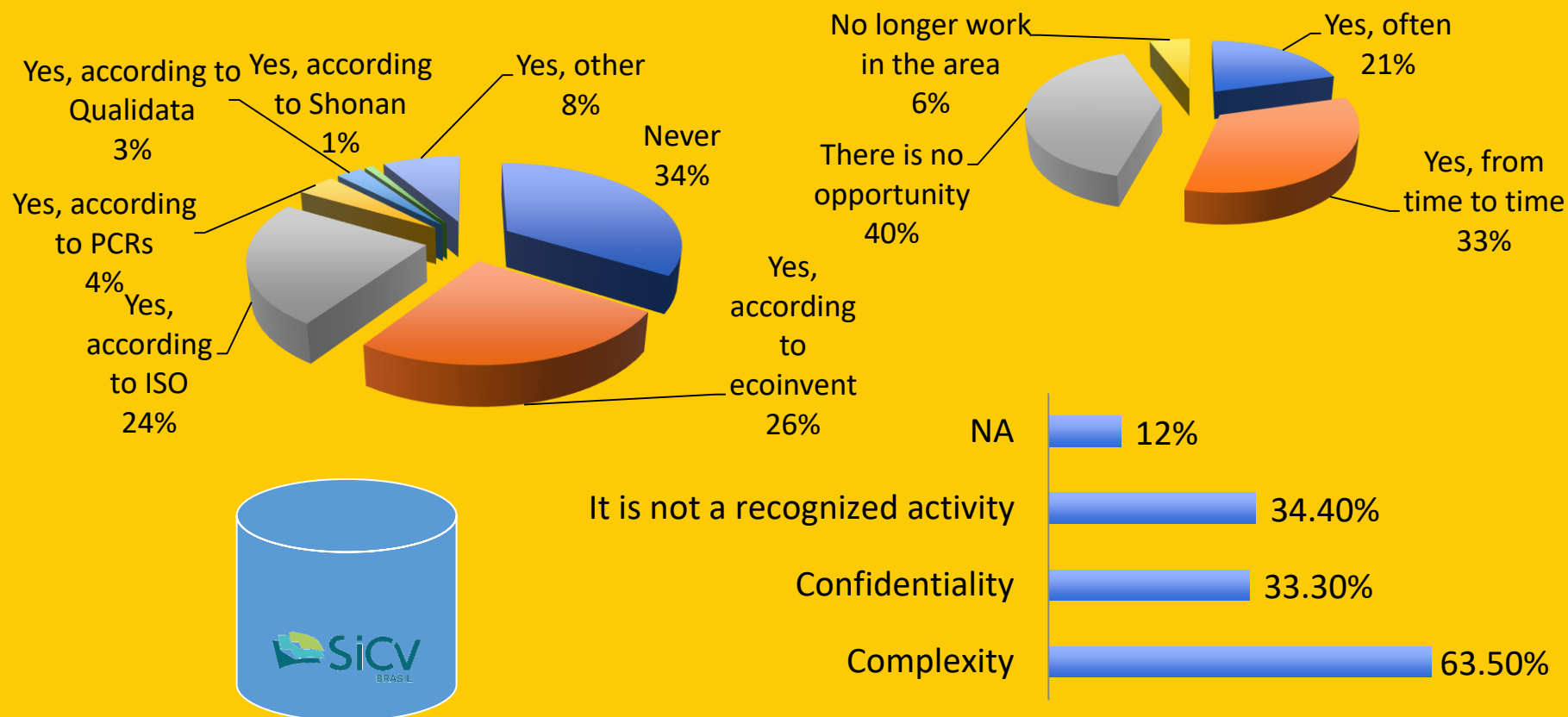




# Auto evaluation of the maturity level

Item	Level of maturity		
	Infancy	Teenage	Adult
<b>Governance</b>	Not formalized		Clear structure, with roles and responsibilities defined
<b>Capacity building in LCA</b>	PhD and Master studies	Some trainings	Spread in all courses, all levels
<b>Use of LCA</b>	Academic studies	Some cases implemented in organizations	Public and private users
<b>Funding of LCA Database</b>	Seed money from international and research agencies	Governmental agencies funding initial activities	Financial stability, independent of external funding
<b>Infrastructure</b>	Working sheets developed by one person/team	Working sheets developed by several groups	Implementation of IT technology
<b>Datasets</b>	Datasets developed for the studies	Non-harmonized datasets available without updates	LCA database, update often
<b>Interoperability</b>	Datasets are not interoperable at all	Datasets can be used in different platforms, but with some work	LCA database interoperable, connected to GLAD

# Poll - LC Dataset development and reasons unpublished in SICV Brasil



# Action plan

- Governance and database management
- Funding mechanism connected to Business model (**backup plans**)
- Infrastructure – IT
- Datasets
  - Technical - prioritization, data quality and review process
  - Populating SICV Brasil – **adding value to the activity**
- Interoperability
  - converting SRI datasets (ecoSpold) to ILCD (SICV)
  - Upload to GLAD
- **Creating demand**
  - Public policy – replicate Renovabio
  - Awareness raising / Capacity building

# Experiences from Brazil

- Own experiences
  - Rich experience involving different stakeholders
  - Data related activities depend on trained people
- Lessons Learned
  - Process
    - More stakeholder engagement needed, especially related to funding
    - Few readers of the whole text (perhaps a video). Public consultation had more feedback.
  - Creating value
    - More users of the public and private sector
    - Adding value to academia

# An early-stage country: Ecuador



0 Project partners and project plan

# Ecuadorian roadmap

- 1 Baseline assessment and stakeholder mapping
- 2 Stakeholder engagement -> National Database Working Group
- 3 Discussion of the implementation plan
- 4 Final report and dissemination

# 1. Baseline Assessment (I)

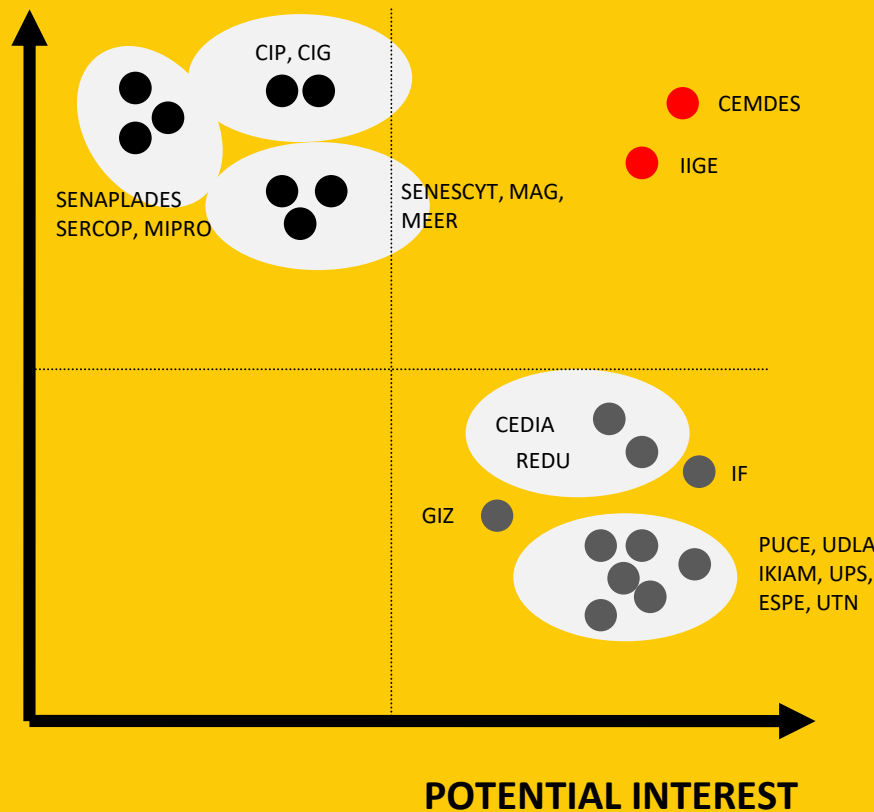
Background: previous activities





# 1. Stakeholder mapping (II)

POTENTIAL INFLUENCE



## GROUPS

- Public sector
- Industry and private sector
- Academia and research
- Civil society and others

**Must be updated!**



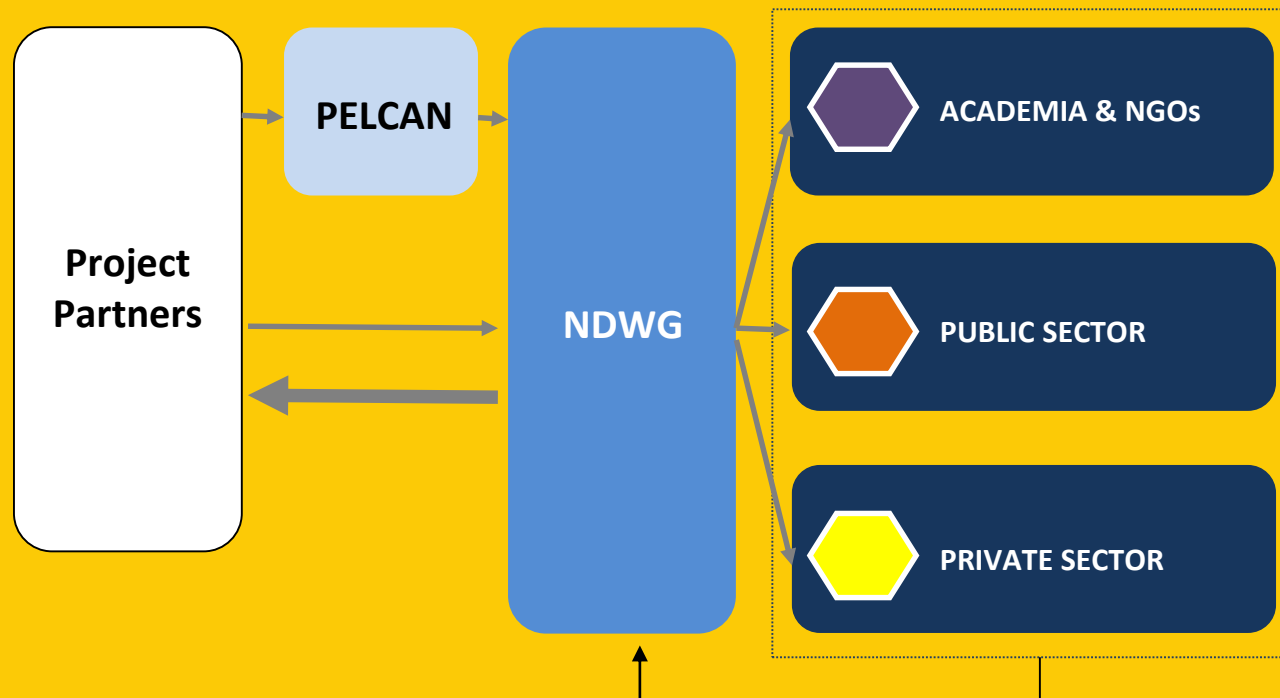
## 2. Stakeholder engagement

Workshops in Quito and Guayaquil:

- How does LCA resonate with you?
- Challenges and opportunities for Ecuador
- Making it real: lessons learnt from the Peruvian process



### 3. Discussion of the implementation plan (I)



## 3. Key points (II)

- Vision and concrete goals
- Governance and management: **the most controversial topic**
- Funds and financing: business model is the biggest challenge

Data and  
database

Database hosting and access  
Data needs and availability  
Data quality requirements and review  
Data format and database interoperability

An LCA database is as good as the decision making it  
can support and the number of users involved

Goal/Activity		Month																								
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Budget (in kUS\$)
G1	A1																									13.00
	A2																									3.00
	A3																									2.00
G2	A4																									6.00
	A5																									3.00
	A6																									7.50
	A7																									18.00
	A8																									3.00
G3	A9																									7.50
	A10																									9.00
	A11																									13.00
G4	A12																									1.50
	A13																									3.00
	A14																									60.00
G5	A15																									45.00
G6	A16																									11.00
G7	A17																									24.00
	A18																									8.00
TOTAL																										237.50

# Technical Helpdesk for LCA Databases



<https://spaces.oneplanetnetwork.org/lcahelpdesk>

# Acknowledgements



# THANK YOU

Carl Vadenbo<sup>1</sup>, Beatriz Rivela<sup>2</sup>, Cássia Ugaya<sup>3</sup>

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