The local energy transition: new value creation patterns for local communities and investors

Cyril ROGER-LACAN

CEO, Tilia Umwelt

Paris, 31 may 2013

Value creation for local communities and investors

- The energy transition provides new patterns for local economic wealth and shared benefits between communities and investors

- Unlike traditional industrial development policies, they rely on revealing local efficiency potentials and untapped resources

- This community value creation is higher when, and to the extent that:
  - A project relies on local resources (inputs, agricultural or urban waste, wind potential) and on local potentials (domestic or industrial use of heat in particular)
  - And that the investment is realised, as a whole or partly, by the local authorities themselves (regions, cities, municipal utilities) or by local citizen initiatives (cooperative society in particular)

Example of local partnership: transformation of the heating system of a 15000 inhabitants city

Extension and modernisation of the heat production plant and extension of the district heating network, intégration of a biogas plant

- Complete analysis of the **local heat consumption potential** – identification of new customers (industries, hospital, …) – and **modelling of the local mid-term heat demand**
- Analysis of the **potential of energy production from local agricultural wastes** (crop rests, livestock manure…)
- Modelling of the **project economics and tariffs**
- **Conception and design of the future biogas and combined heat power plant** (mix of agricultural wastes in particular) **and of the district heating network extension**
- **Contracting with farmers** (inputs) **and new customers** (key accounts)
- Support of the local public company for the **bidding, construction monitoring, commissioning and start-up of the operation**

Key facts :

- Total investment: 3,25 M€
- Equity: 365 k€
- IRR before taxes: > 10%
- ROE: > 20%
- Heat production cost: - 30%
- Creation of 2 to 3 stable jobs
- CO2 emissions reduction of 3.300 t/a

Measuring the « communal value creation »

Direct value creation		**466.300**	**k€/year**
Dividends from project		60.800	k€/year
Net result		18.500	k€/year
Production costs reduction		313.000	k€/year
Salaries of created jobs		74.000	k€/year
Indirect value creation		**397.600**	**k€/year**
Surface rent		10.000	k€/year
Local suppliers (chemical analises,…)		12.600	k€/year
Agriculture Ressources / Inputs		272.000	k€/year
Maintenance		103.000	k€/year
Externalities		**397.600**	**k€/year**
CO2 reductions	*Market price: 6€/t*	19.800	k€/year
	Market price: 30€/t	99.000	k€/year
Valorisation ot wastes			
Security of supply			

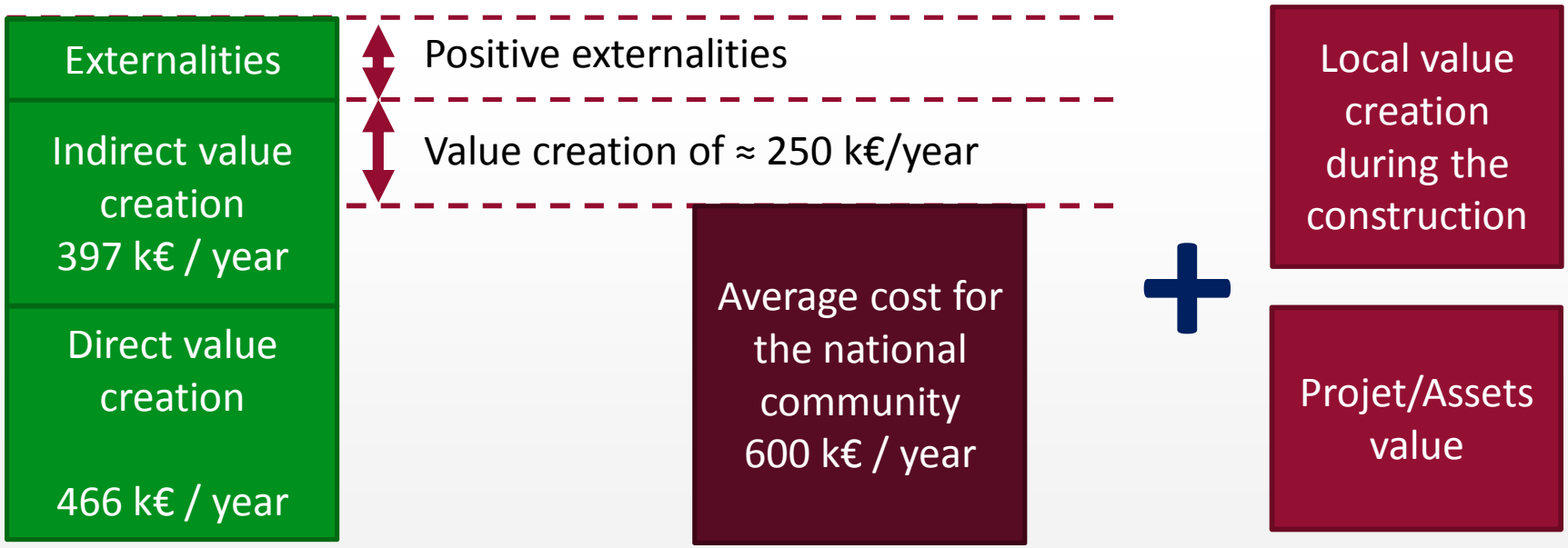
Municipality, communal utility, inhabitants

Related industries and services (suppliers)

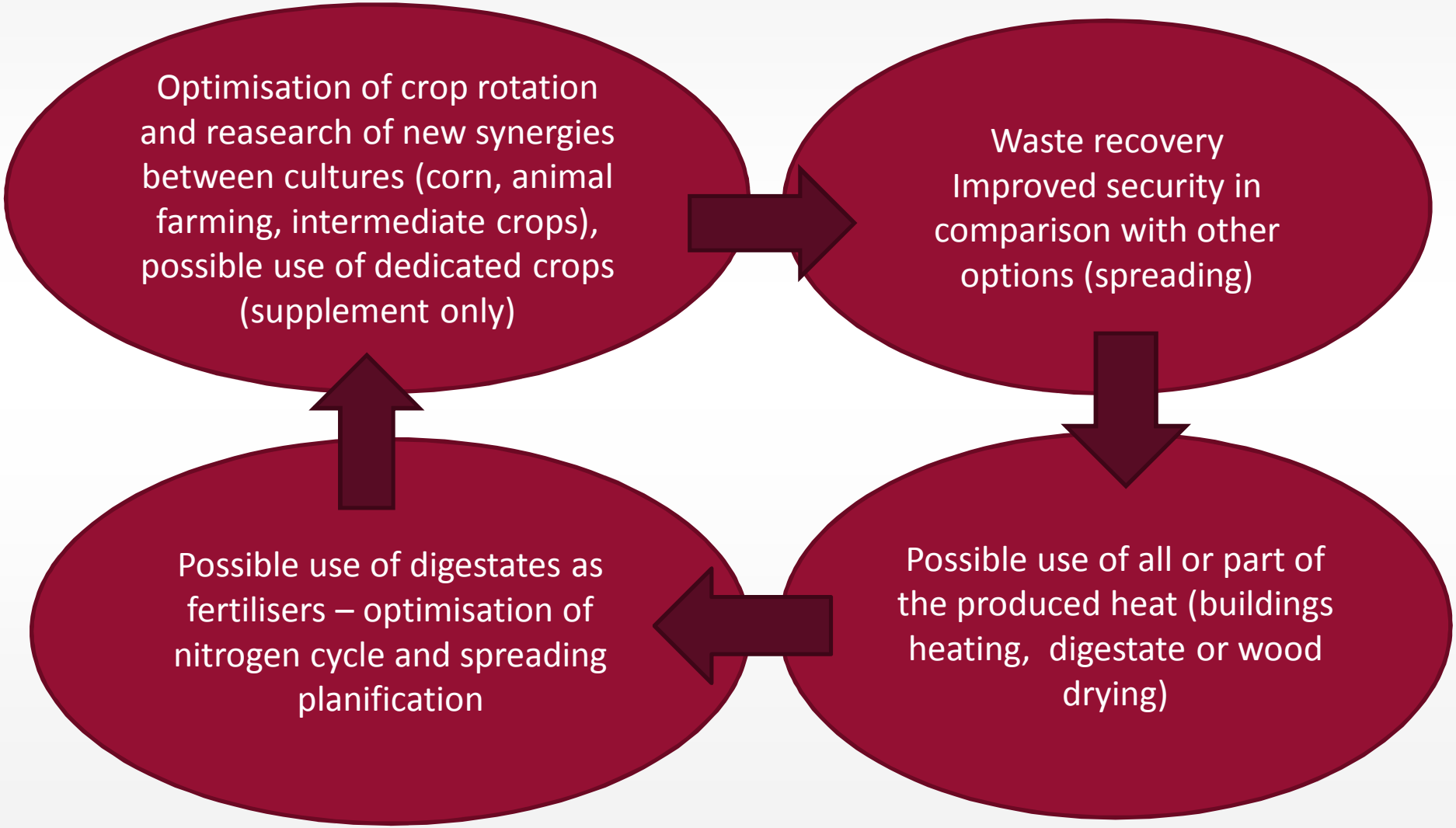
Externalities

Measuring the « communal value creation »

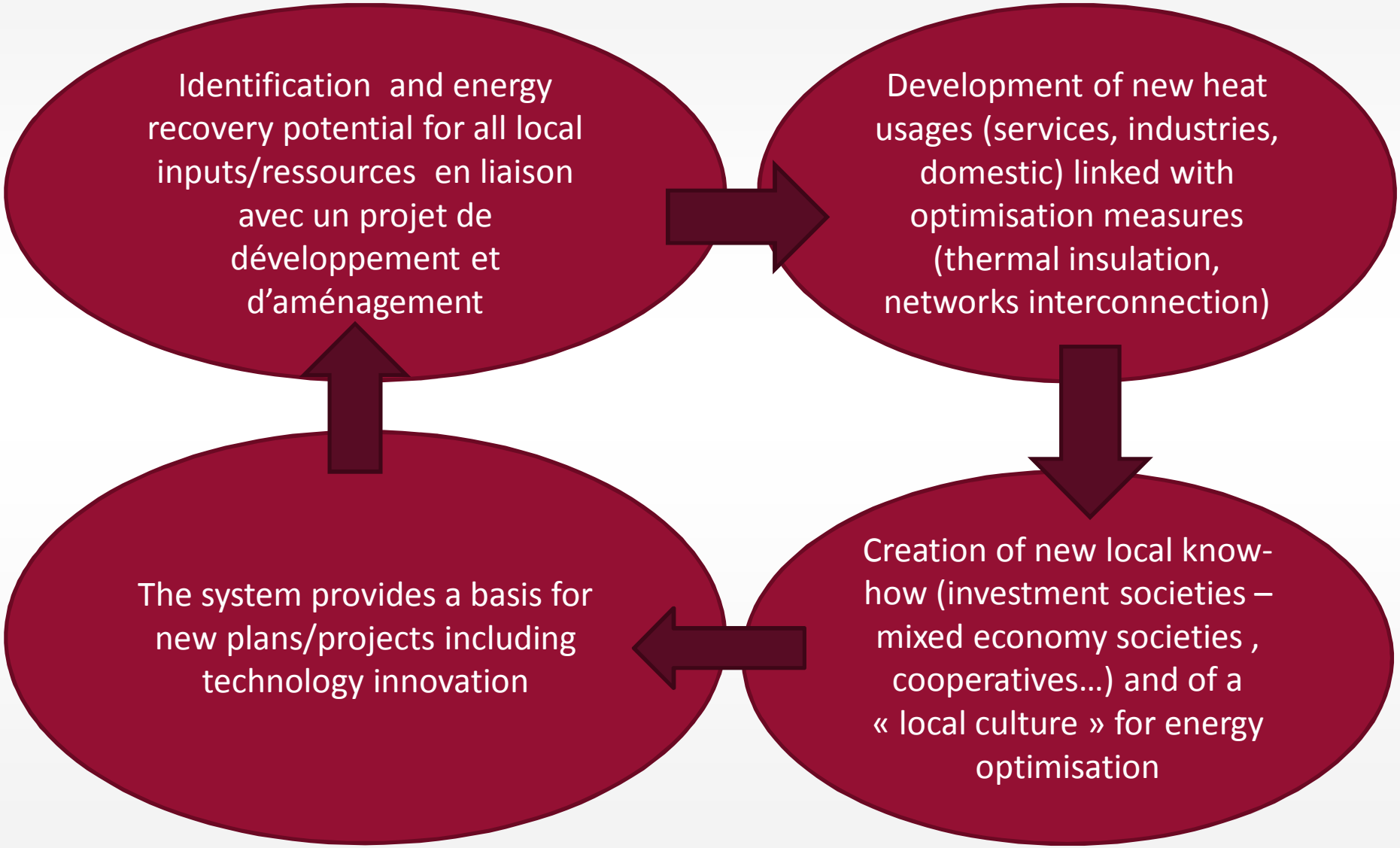
Date	Average price of electricity in €/MWh	Cost of market supply in t€	Feed-in-tariff remuneration in t€	Difference in t€
01/01/2009	80	310,4	871,9	561,5
01/01/2010	66	256,08	871,9	615,82
01/01/2011	58	225,04	871,9	646,86
01/01/2012	58	225,04	871,9	646,86



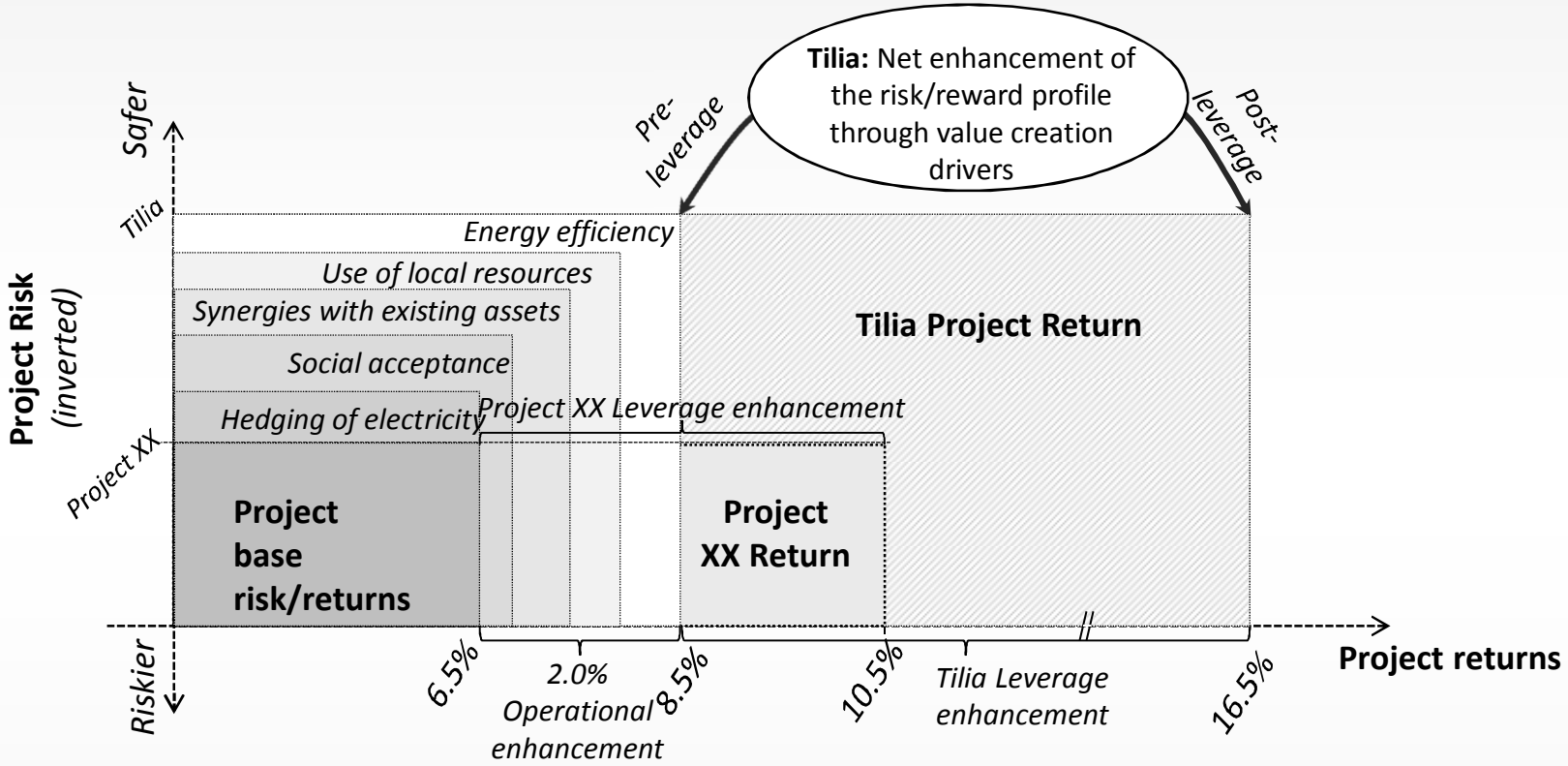
Energy is more than energy: optimisation of a methanisation project from an agricultural standpoint



The process of developpement of new local partnerships



Why partnership patterns jointly enhance risk and value for equity investors



Tilia's Unique Set of Value Creation Drivers	Returns Enhancement	Risk Reduction
Energy efficiency	+++	+
Use of local resources	+++	+
Synergies with existing assets	+++	+
Social acceptance	+	++
Hedging of electricity	=	++

Tilia's approach strategy for local partnerships

Technical optimisation

Tilia has in-house specialists of each field concerned by its projects, and is able to design efficient solutions, which enhance project returns

Economic efficiency

Working out concrete optimisation, both at conception stage and throughout the operation, improves affordability and increases project value

Risk/return enhancement

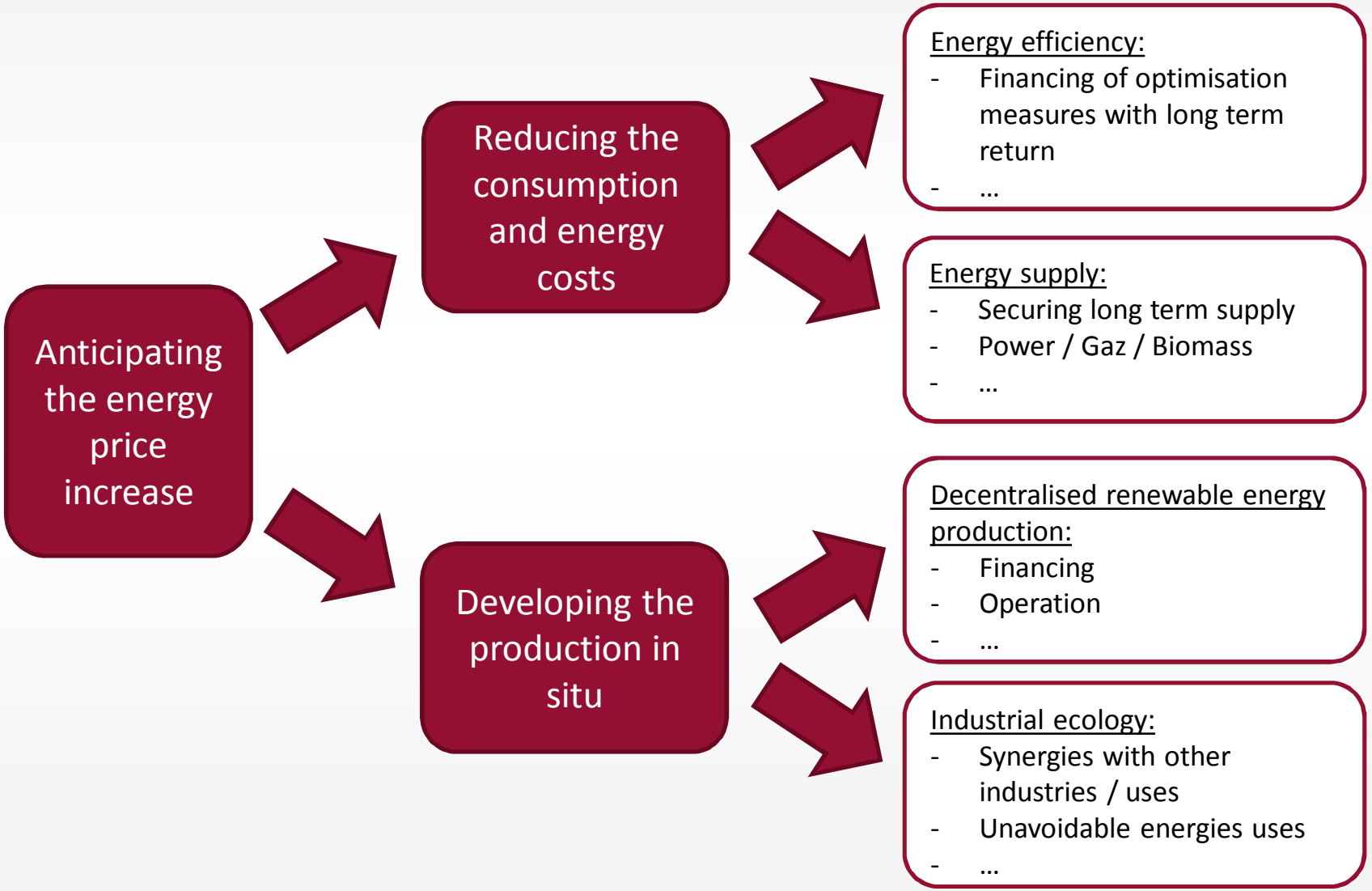
Social Acceptance

Tilia has a long track record of successful dialogue with local stakeholders, and relies to all the extent possible on the active participation of communities in projects

Environmental Performance

Tilia promotes the highest environmental performance accordingly with the partner's needs and measures it with sounded indicators

The energy transition challenges for the industry



Contacts

Cyril ROGER-LACAN
CEO et actionnaire fondateur

roger-lacan.cyril@tilia-umwelt.com
Tel: +33 1 53 10 91 68

45, rue du Cardinal Lemoine
75005 Paris
France

Tilia Umwelt GmbH
www.tilia-umwelt.com