



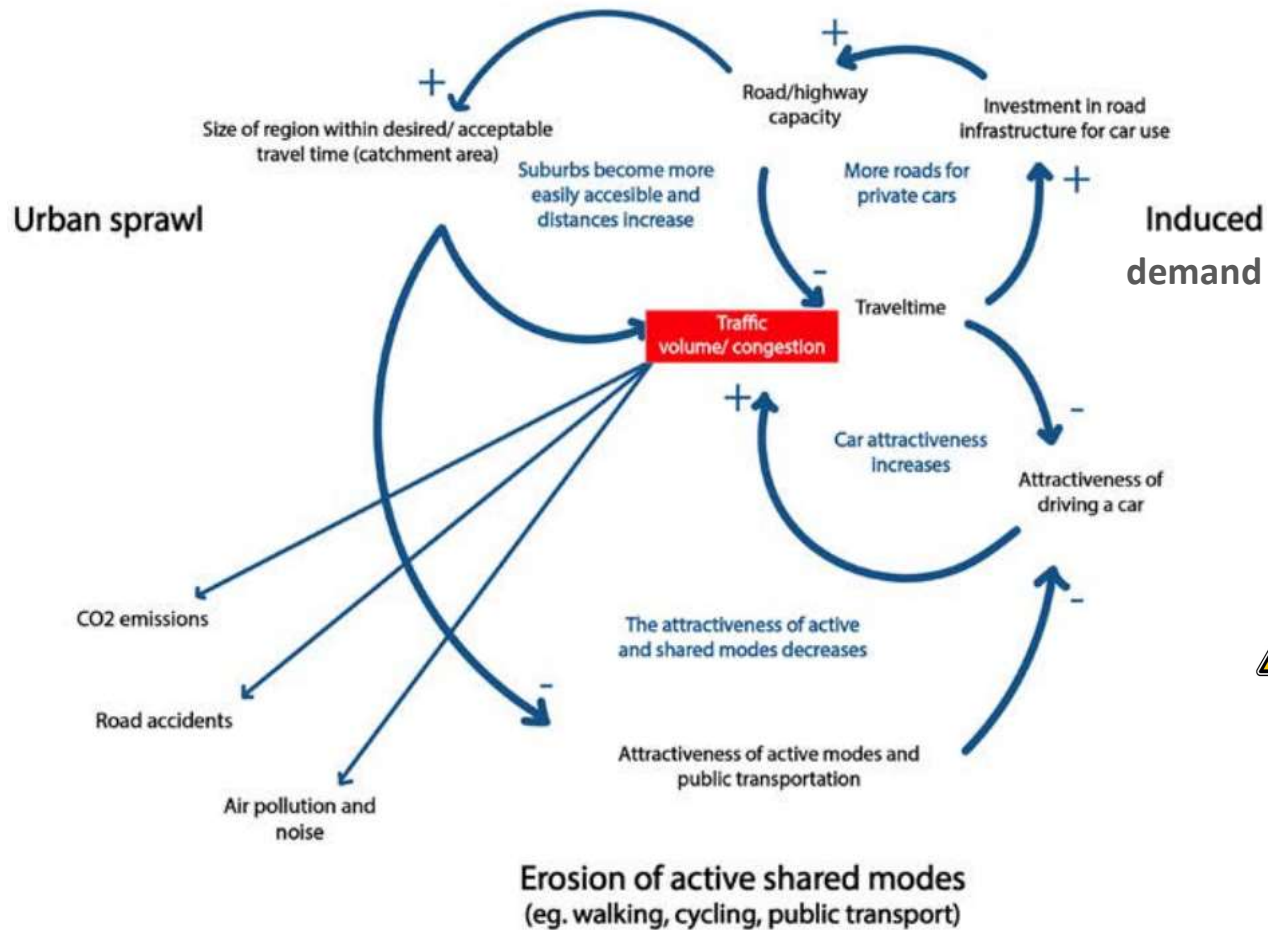
Renault
Group

Car dependent households How to scale up a local initiative ?

2022-10-07 CHAIR ENERGY AND PROSPERITY

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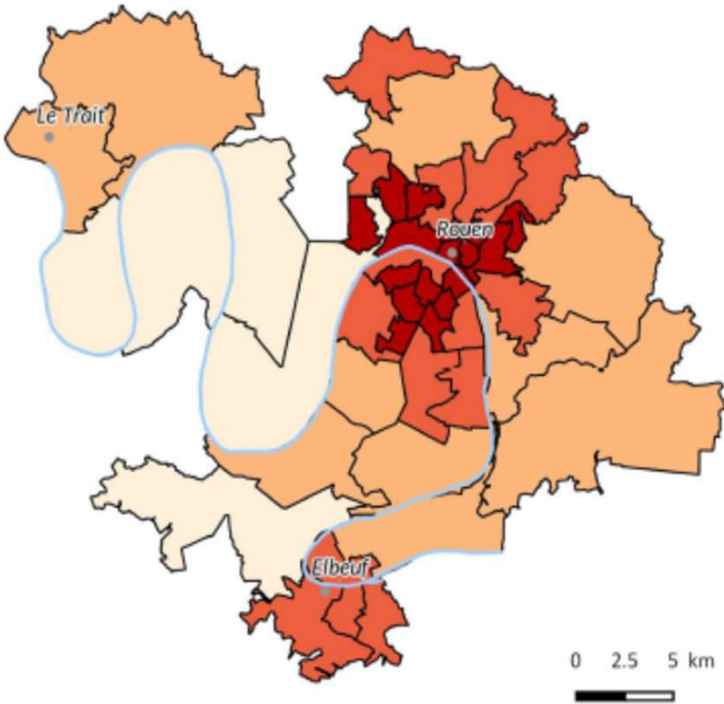
Daily mobility around urban centers – Legacy and prospective -



Troublesome legacy with bad dynamics for the next 10 years leading to sustainability concerns (*our projection*) :

- CO2 trajectory incompatible with climate
- vicious circle of weakening of public transport
- non-accessibility of services and jobs
- social anger whose mobility is a detonator

Focus on Rouen-Normandie in a TIGA project



		Moving area	
		super dense areas	out of super dense areas
Living area	super dense areas		
	out of super dense areas	~127 000 households using a car for daily errands	

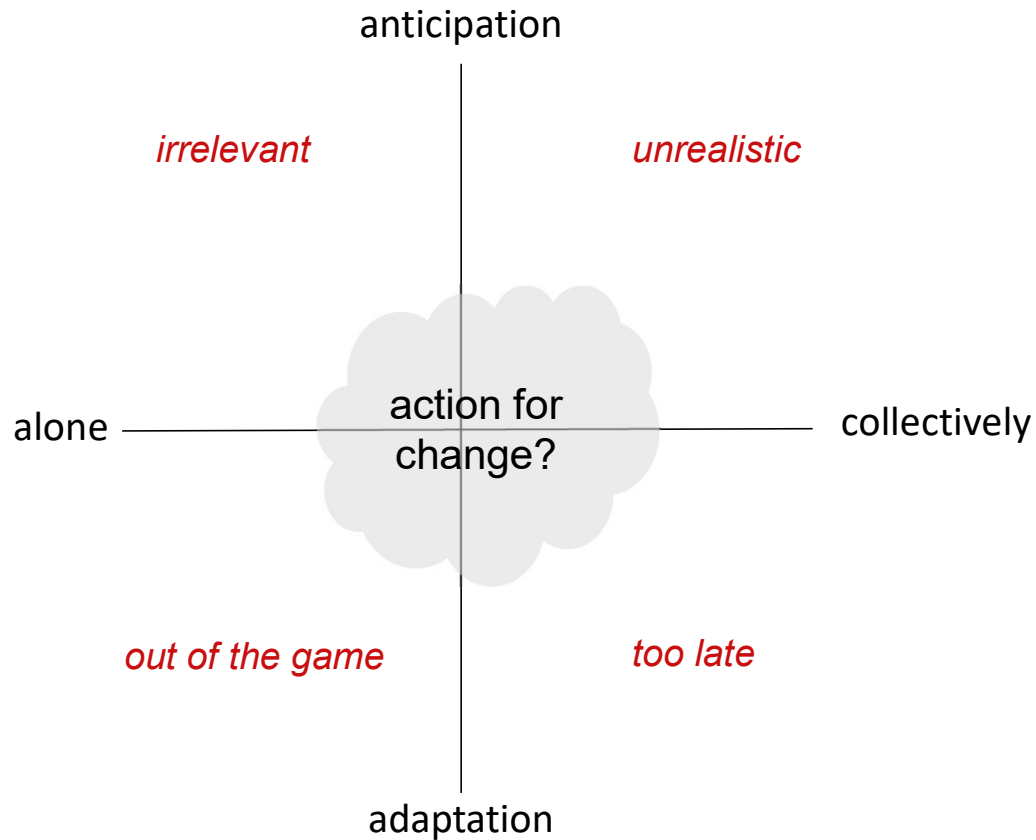
Nombre d'habitant au km²

Découpage DTIR

- 2700 et plus (max 13 478)
- de 750 à 2700
- de 150 à 750
- Inf. à 150

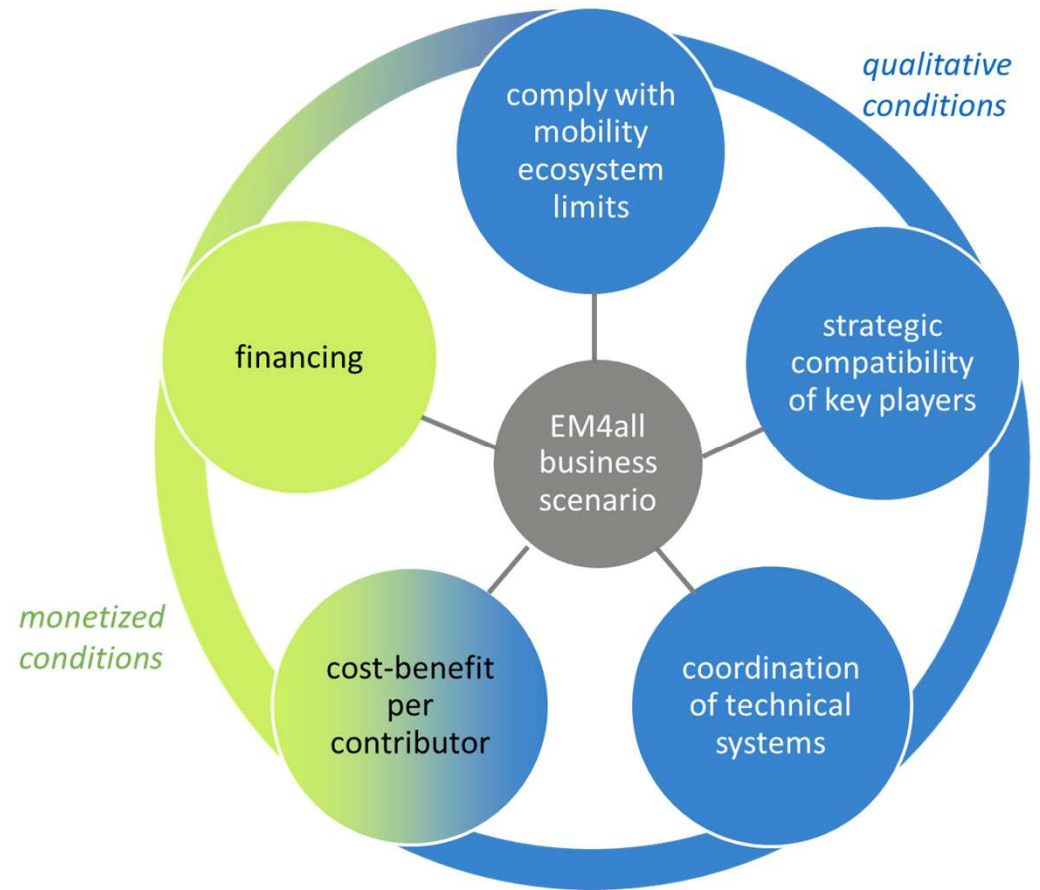
An action led by Renault in the Rouen-TIGA project enabled to design proposals for these households, among which EM4all organizing the local integration and full life cycle management of a small EV.

Facing such sustainability concerns...



What we think relevant as an action for change :

- Anticipating impacts of possible action
- Collectively converging and experimenting
- Continuously adapting

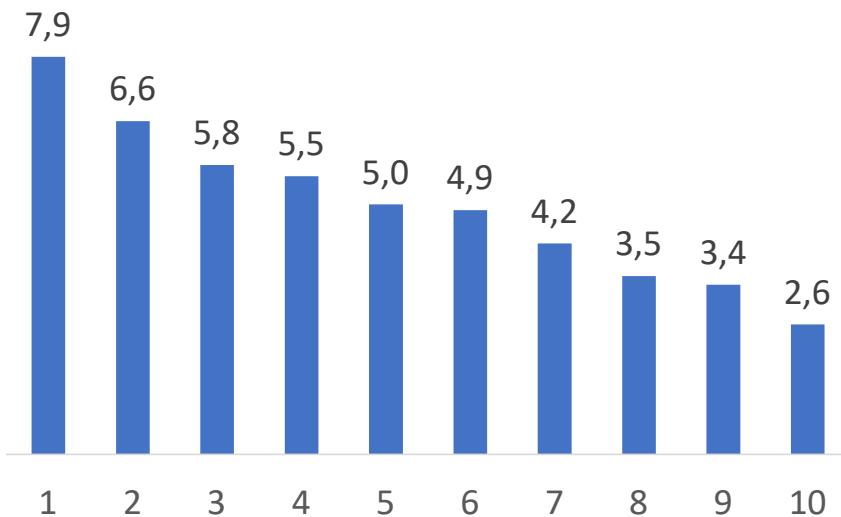


And thus we strive to design action proposals fulfilling some key conditions

Characteristics of the French car park

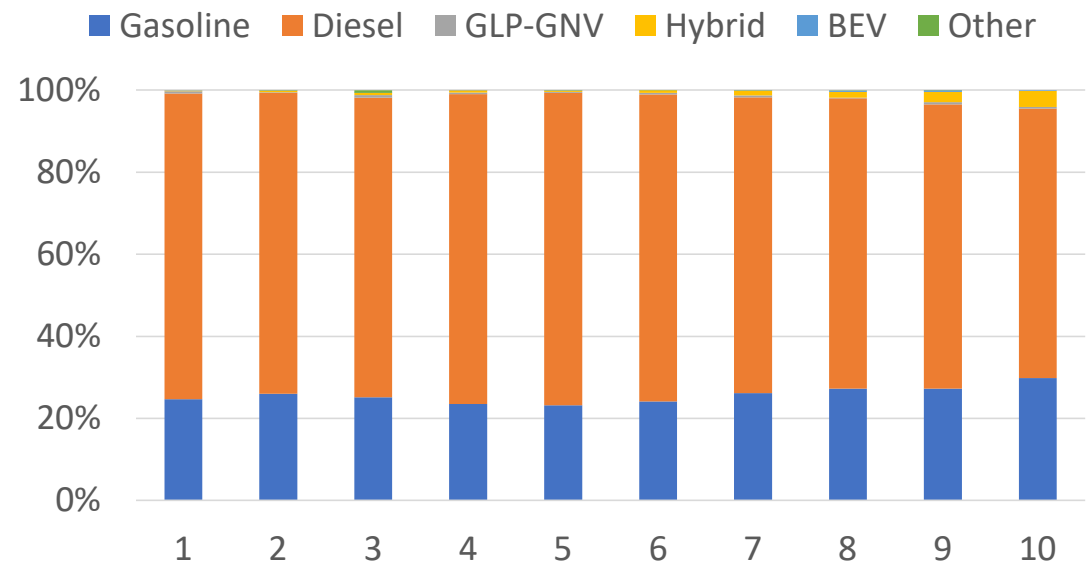
From the national transport survey Enquête Mobilité des Personnes (2018-2019)

Average age of a vehicle at the time of purchase, per decile of equivalized income



- the used-car market is 3.4 times more active than the new
- from D1 to D7, people buy vehicles that are more than 4 years old.

Share of km driven using different fuel types, per decile of equivalized income



- diesel still dominates across all deciles.
- depending on the decile, between 65% and 76% of distance travelled in car are driven in diesel.

Would long term leasing of small electric vehicles at ~100 €/month be a right target ?

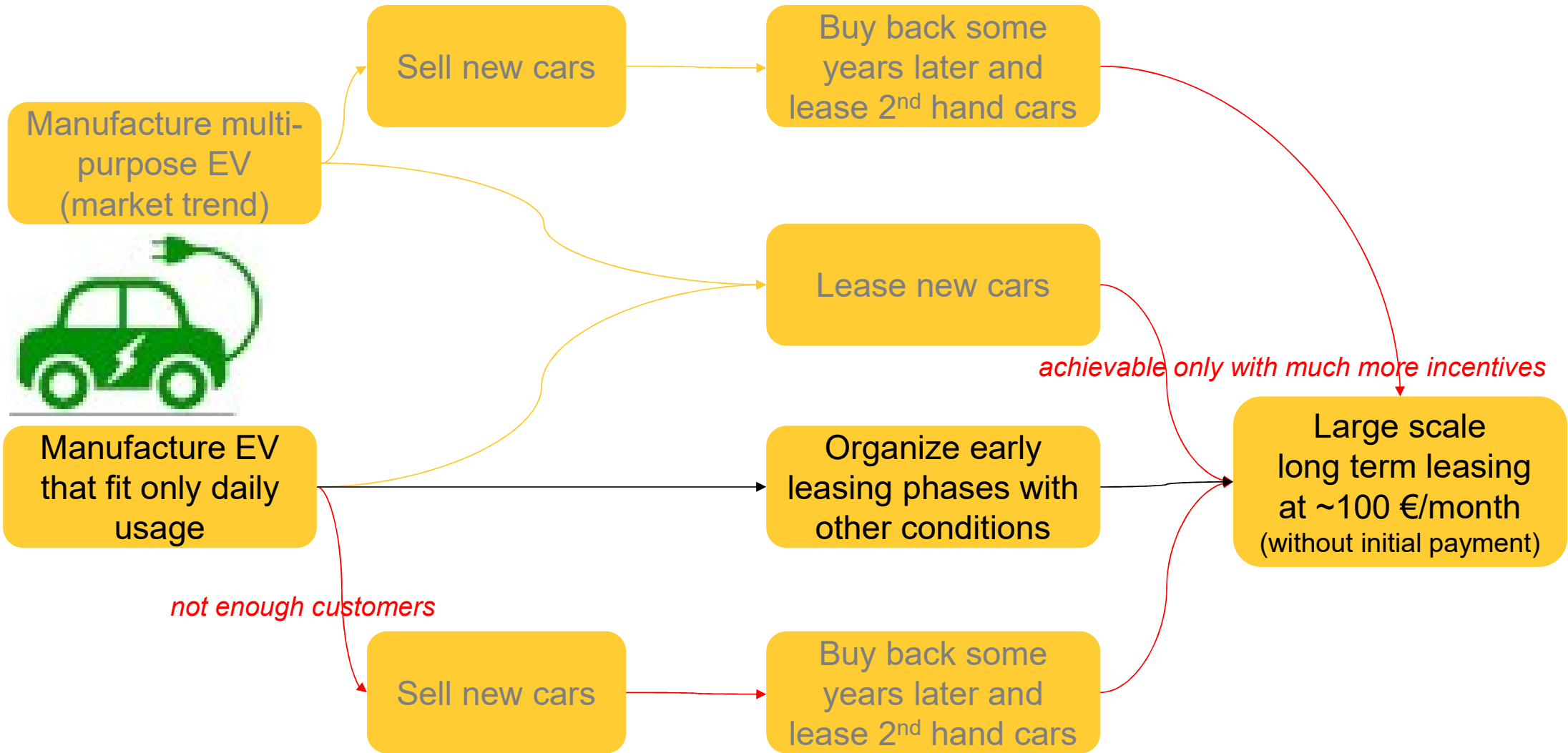
Many car dependent households are used to purchasing a small diesel car, more than 4 years old, for their daily use

These people could be willing to try the long term leasing of an EV at ~100 €/month

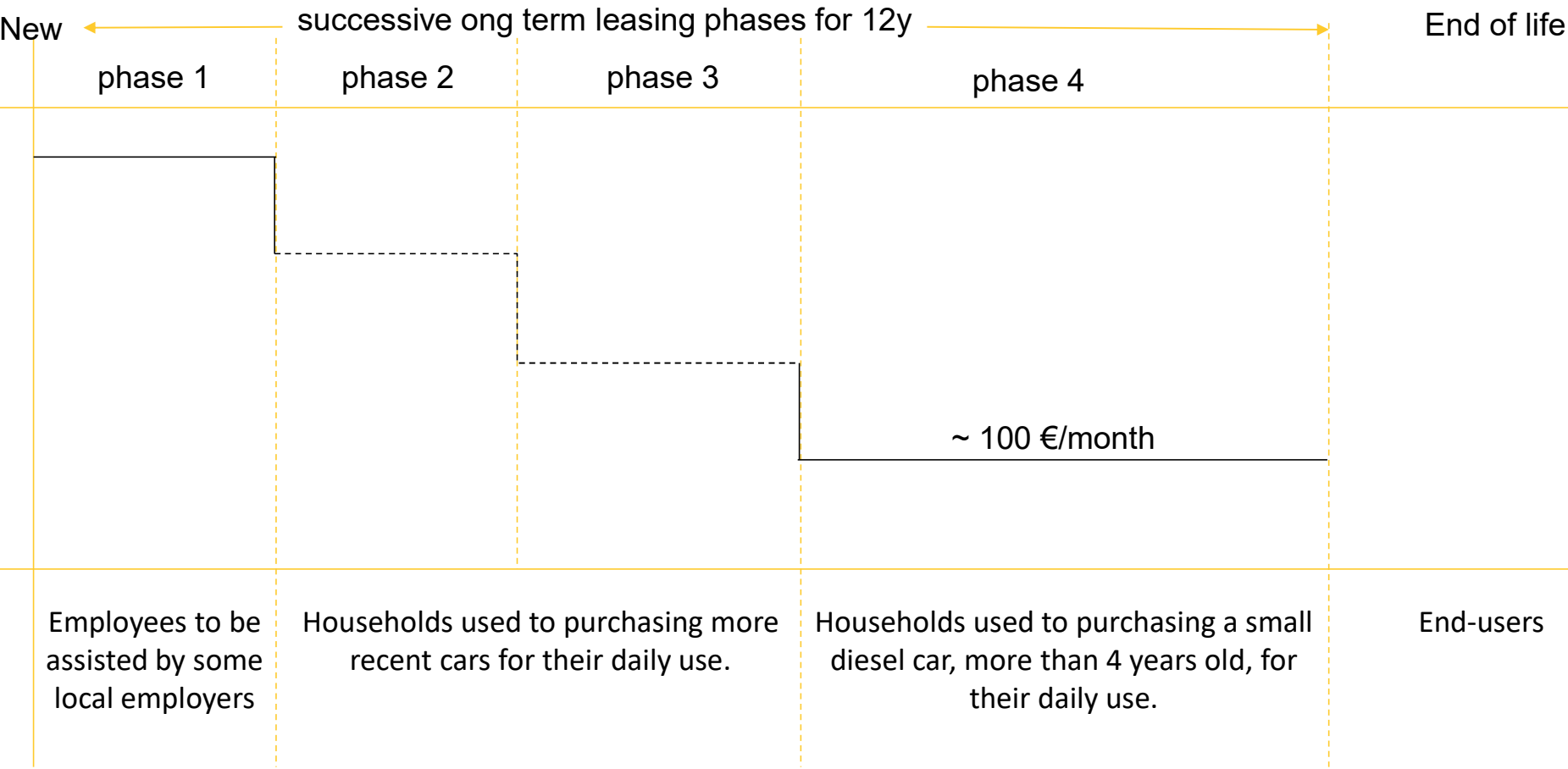


roughly the same global expenses
ie ~2500€/y if 13000 km/year (including car, energy, maintenance, insurance)

How to meet these leasing conditions?



Bet on local life cycle management



Current status

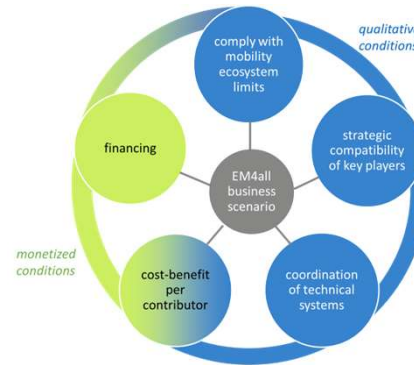
Orientation



Long term leasing
for car dependent households

Local full life cycle management
of dedicated EVs

Design of sustainable embodiment



A new car-leasing service business requiring :

- local public support in the first years (see next slide)
- special coordination with local business activities :



...

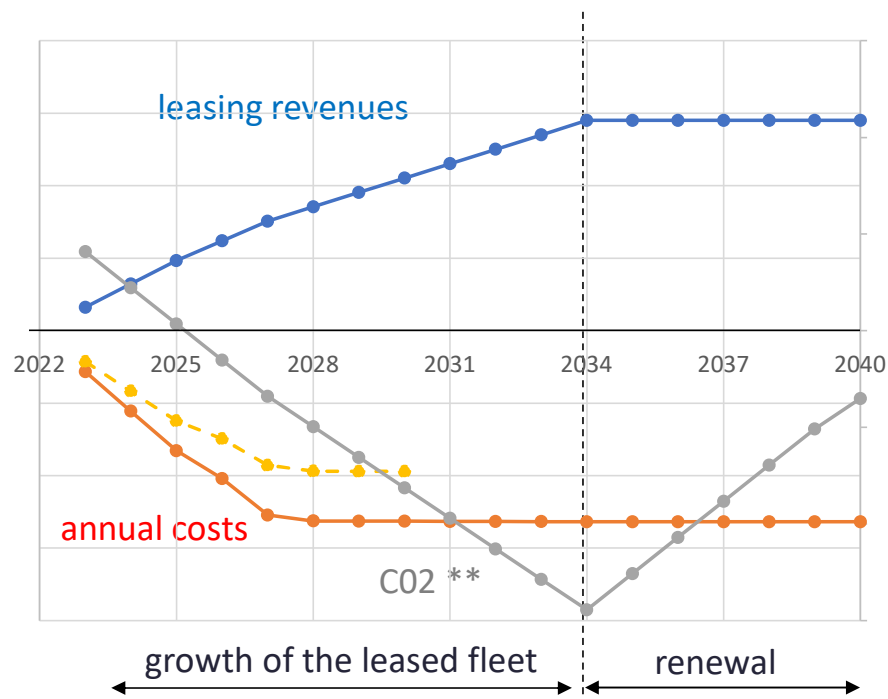
Experiment



now for decision

LCCA based on our local prospective assessment

LCCA ** = 200 €/tCO₂ still higher than the current Social Cost of Carbon
but doesn't take into account other social benefits (health, local employment, inequities reduction...)



Even by taking advantage of national bonus for EV (--- *line*),
payback would be too long for a private company



local public support expected for the first years

* Levelized Cost of Carbon Abatement referred as
"Méthode 3" (Criqui 2021) with discount rate 3%

** including cars manufacturing and well to wheel CO₂ emissions

Question for this workshop

At this point, an experiment in Rouen-Normandie would be key to learn how people and local stakeholders would customize the proposal. But however rich in lessons, this experiment can't be enough for Renault...

Renault will also have to make forecasts at a larger scale to assess the opportunity for a dedicated vehicle. A drastic cost reduction is indeed a condition to limit the need for public subsidies over time, but it depends on the volume to manufacture every year.

In this case, this assumption doesn't rely on usual foresights for the automotive market, but :
« how fast in how many regions, this Rouen-Normandie initiative should scale up ? »

Since spontaneous dissemination would lead to very uncertain prospective, the question is :

What would be the possible contribution of national (and/or european) planning, to make dissemination to other regions, less uncertain, quicker and larger?