



CLEM

Bringing the energy transition to your territory

February 2019



Energy transition and e-mobility

Transportation, one of the main sources of carbon emission

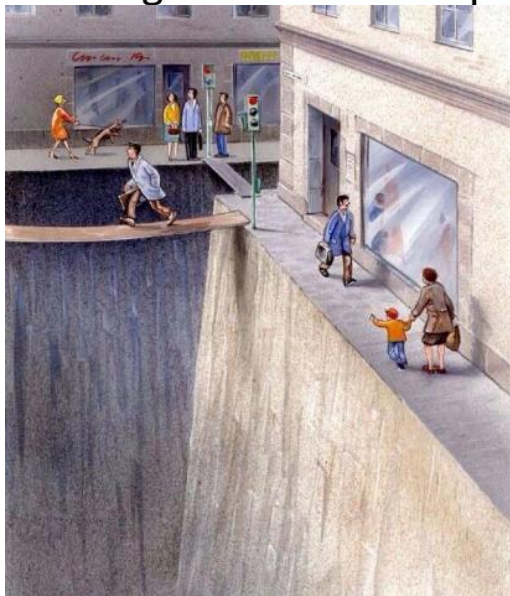
Government initiatives promote **decarbonized transport**

- European regulation on annual reduction of greenhouse gas emissions: - **37%** in UE by 2030
- **Cities** take measures to ban emission cars
- Key issue for Smart Cities: **Smart Electric Vehicles** management



The mobility transition

The role of Stephen Hawking calls for 'world government' to stop



AI takeover - Wikipedia

https://en.wikipedia.org/wiki/AI_takeover ▼

An AI takeover is a hypothetical scenario in which artificial intelligence (AI) becomes the dominant form of intelligence on Earth, with computers or robots effectively taking control of the planet away from the ... However, a machine could be motivated to take over the world as a rational means toward attaining its ultimate goals ...

Types · Automation of the ... · In fiction · Contributing factors

Five reasons why robots won't take over the world - Phys.org

<https://phys.org> · Technology · Robotics ▼

Apr 18, 2018 - Here are five reasons why robots aren't about to take over the world. ... design a way to control them to manipulate objects in a human-like way.

Will robots ever rule the world? | Debate.org

<https://www.debate.org> · Opinions · Technology ▼

So just think about it and I think this is why robots won't rule the world yes in ... We human do not know how to control ourselves and know how to compete to ...

Will AI Take Over The World? - Forbes

<https://www.forbes.com/sites/shephken/2017/12/17/will-ai-take-over-the-world/> ▼

Dec 17, 2017 - Detective Del Spooner hates robots because he was in a car ... Eventually, these humanoids band together in a plot to take over the world.

Human Legacies When Robots Rule the Earth - MIT Technology Review

<https://www.technologyreview.com/s/.../human-legacies-when-robots-rule-the-earth/> ▼

Oct 3, 2017 - ... for seventy years many of these machines have been controlled by computers. ... A future world dominated by robots could in principle evolve ...

Robotics and the World - Wikibooks, open books for an open world

https://en.wikibooks.org/wiki/Robotics_and_the_World ▼

Jump to **Robot Control** - There are many ways to design software for controlling a robot. The focus is not on low-level coding issues, but on high level ...

More than 70% of US fears robots taking over our lives, survey finds ...

<https://www.theguardian.com/.../2017/.../robots-artificial-intelligence-machines-us-survey>...

Oct 4, 2017 - As Silicon Valley heralds progress on self-driving cars and robot carers, ... of the country is worried about machines taking control of human tasks. ... than 70% of Americans express wariness or concern about a world where ...

Do you think that one day robots will take over this world? - Quora

<https://www.quora.com/Do-you-think-that-one-day-robots-will-take-over-this-world>

Robots will only control 'your world' if 'you' see "information" as "intelligence" and if 'you' see "experts" as actually "expert" in the things that make you truly ...

How about cars ?



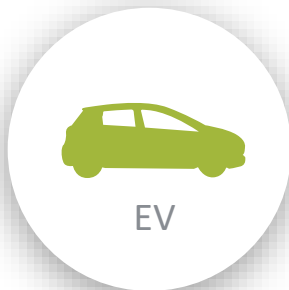
Mobility market in Smart Cities: **electric** vehicles and **shared** services

Electric Vehicles (EVs)

- 60 million EVs by 2038,
> combustion cars in 2038
- *LOM legislation in France*
Objective X 5 EV sales by 2022

Charging Stations (EVSEs)

- +35% YoY 2018-2024
26.38 million units by 2024.
(Energias Market Research)
- *LOM legislation in France*
Compulsory equipment in carparks > 10 places



Car-sharing & Digital

- Carsharing will grow 4.5 times in the next decade,
and 36 million people will be using it by 2025
- Initiatives such as Company Travel Plan (*Plan de déplacement entreprises*) that incentivize e-carsharing



Digital transformation

Clem manages EV fleets and smart charging

..owned by its customers: municipalities and large companies locally

1 A leader in electrical car sharing...

2 And a charge point operator

3 Bringing services on top of charging points

...whatever the brand

Mobility shift

Who is Clem?

How it works



Clem turns every charging point into a **smart mobility station**

Clem's clients: Municipalities and Campuses

Smartcity

Large projects (ex: Paris-Region)

Periurban Hub

Small and Medium projects (ex: Ardennes 150 Stations)

Business parks

Philadelphia Navy Yard

Eco District

Housing



1 247

Group of municipalities in France

35k

Municipalities <100 000 inhabitants in France

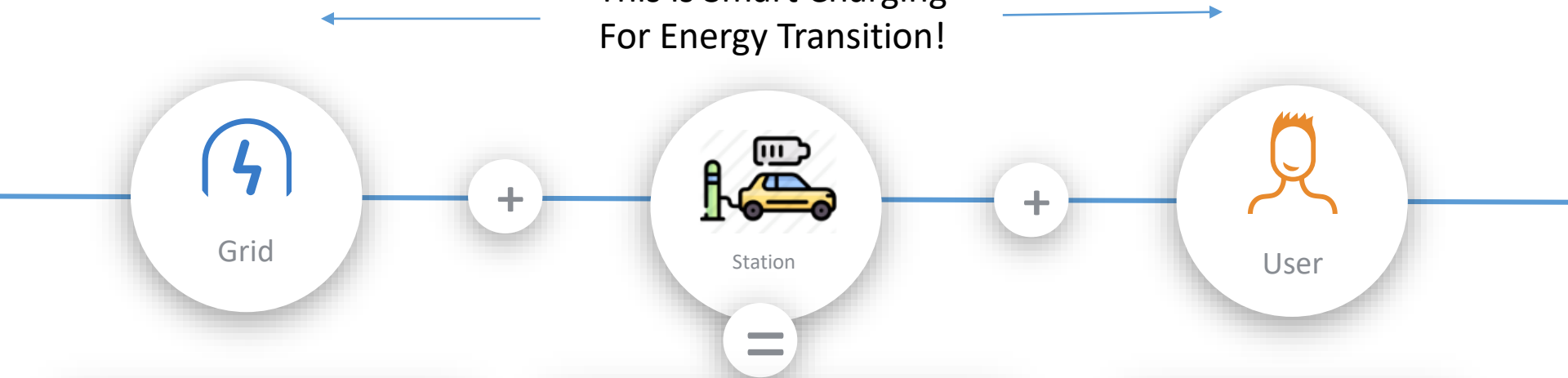
12 000

Business parks in the US

Clem unique position : we turn every charging point into a smart mobility station

We manage Stations and EV fleets belonging to municipalities and large companies

This is Smart Charging
For Energy Transition!



Maintain grid balance



Low carbon objectives



Savings

Clem: a uniquely combined patented technology



IOT: Patented sharing card



M'card in a dedicated equipment (Mbox))

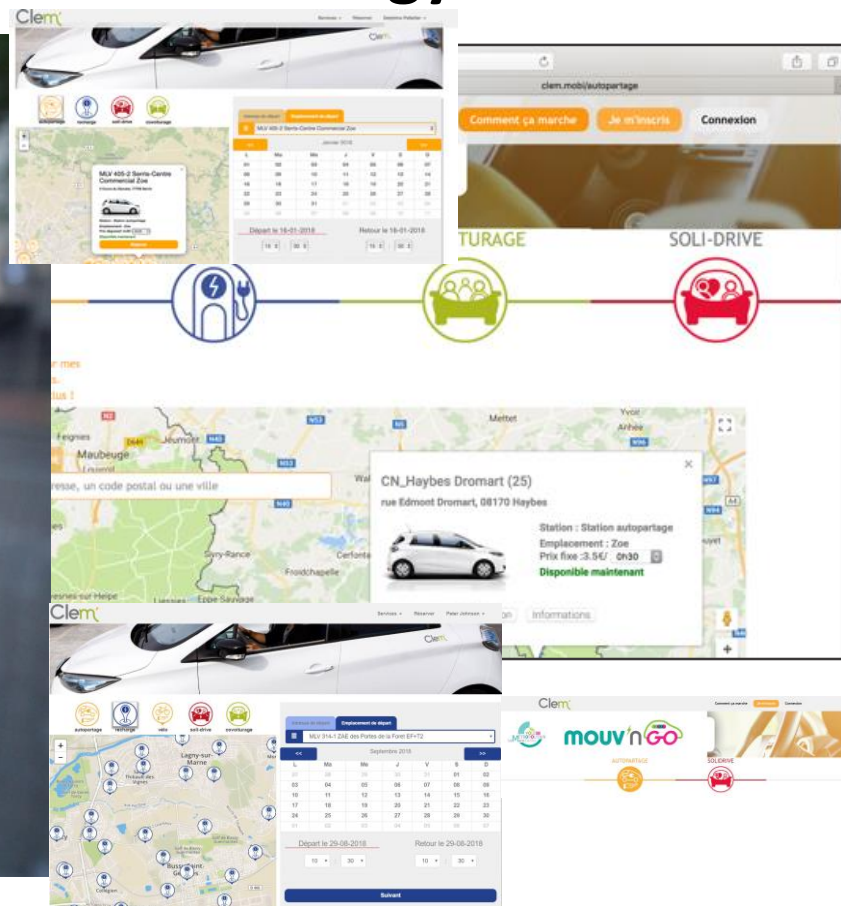
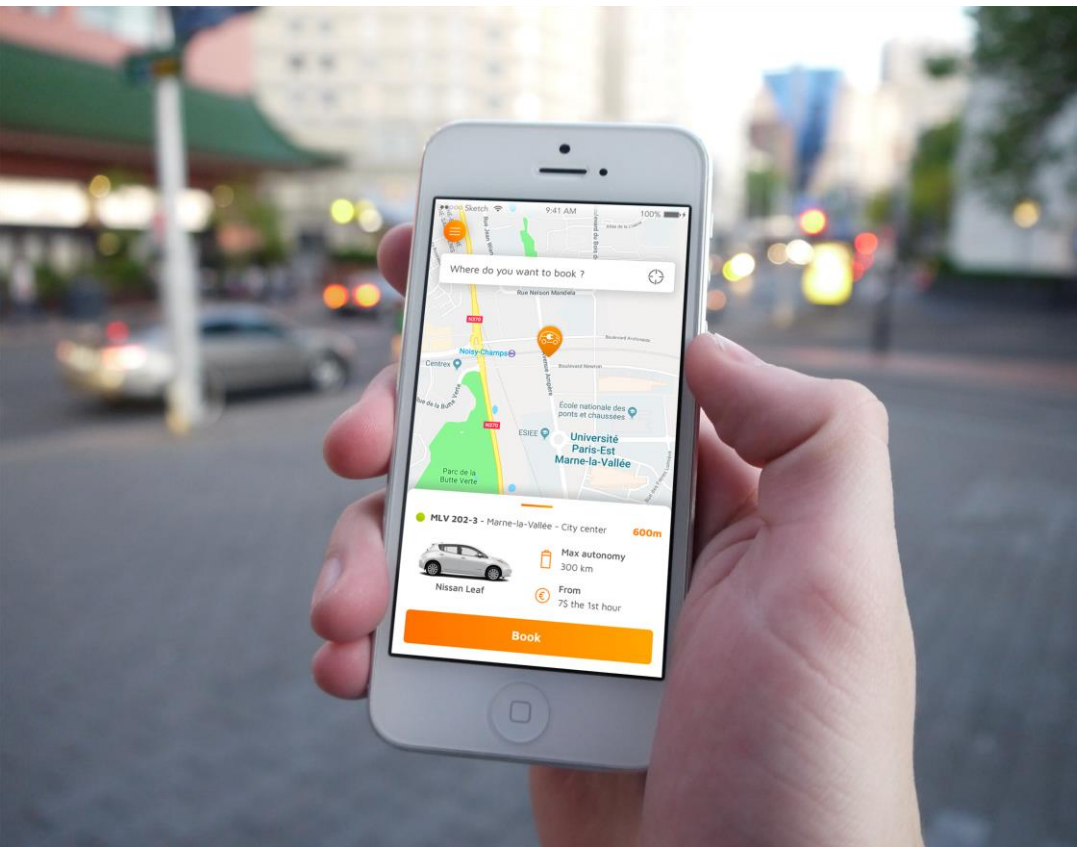


M'card inside the charging station



Connect: M'card in the car

Clem: a uniquely combined patented technology...

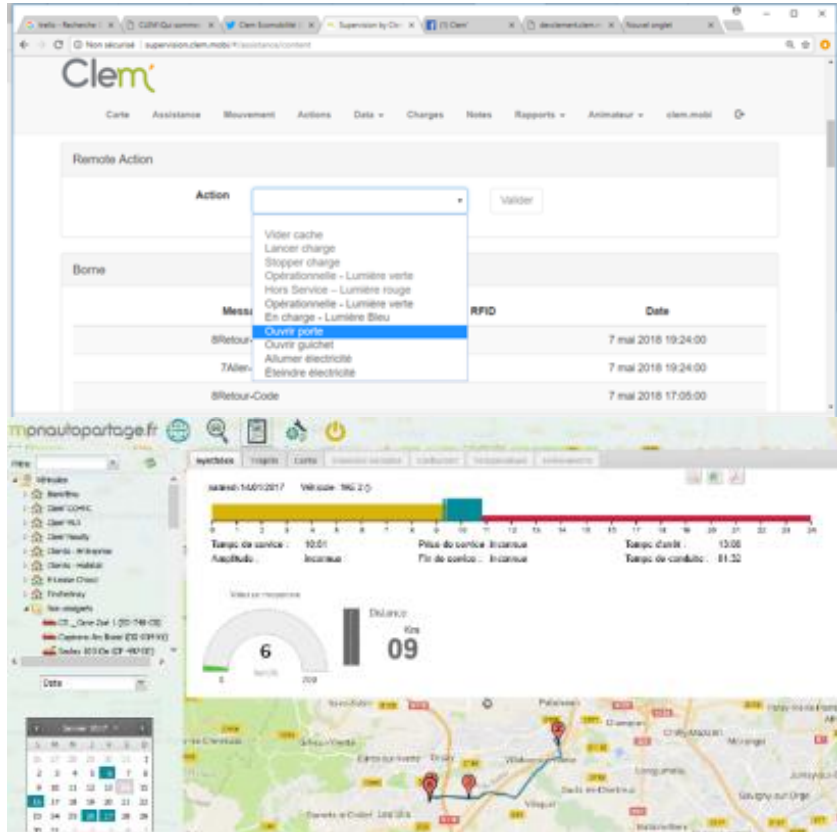


Mobility shift

Who is Clem?

How it works

...allowing for any degree of **local implication**



Facilitating :

- Create, modify, validate

Supervising

Real time information about the level of adoption and use of the service

- Charging stations
- Individual charging stations
- Remote Actions

Locate

- Visualize, control and manage use in real time
- Data analysis

Clem's platform know-how

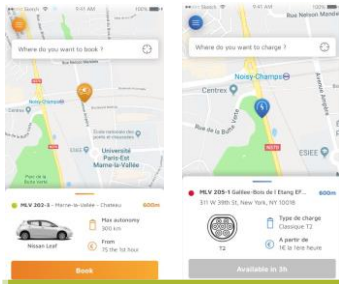
User interfaces - Standard or White label



Web user platforms



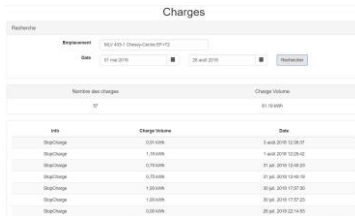
Android and iOS applications



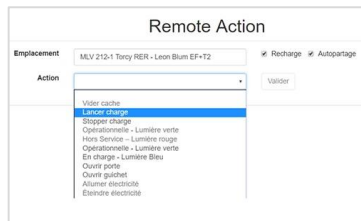
Mobility shift

Who is Clem?

Charge operator



Remote Action

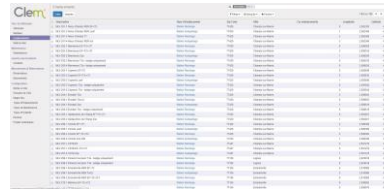


Geolocation platform



How it works

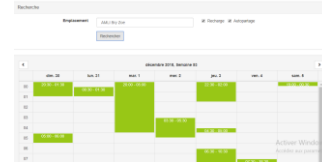
Financial Management



Administrator access



Planning des réservations



Data analysis



Nouvel Utilisateur



Clem: an operator of mobilities



SHARED VEHICLES



Private
carsharing



Professional
carsharing



Bikeshare

CHARGING



Smart Charging

RIDESHARING



E-shuttle



Carpooling



Solidrive

Clem: an operator of **mobilities**



SHARED VEHICLES

1

Adaptable to different modes,
different people

2

Any kind of vehicle

3

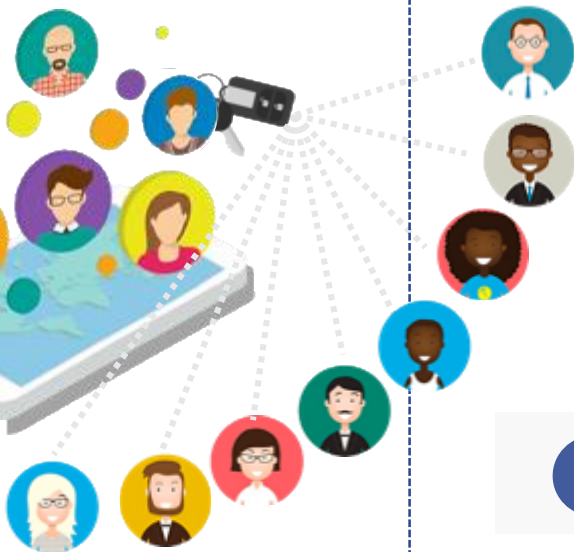
Greener fleets, better use

4

Taking advantage of existing resources and fleets to
create low cost green mobility



Clem: an operator of **mobilities**



CHARGING

1

Access charging points with or without a reservation

2

Use possible even without an internet connection

3

Use and payment possible for subscribers and non subscribers

4

Smart charging, integration with a carsharing and with smart grid services



Clem: an operator of **mobilities**



RIDESHARING

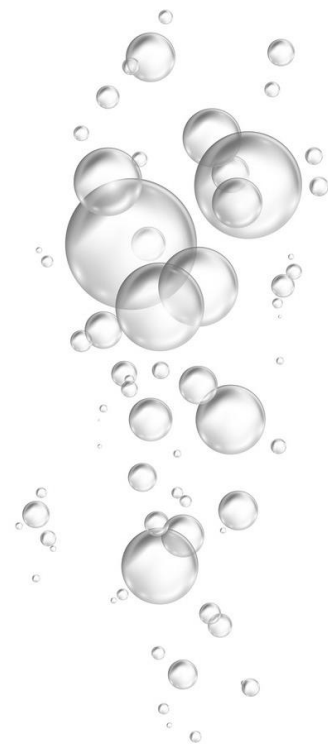
1

Integration to carsharing:

- Use of shared cars by a designated driver for on-demand services
- Encouraging user of carsharing seamlessly share their trips

2

Build up cohesion and solidarity in a community



Clem' operates in over 100 cities

ENERGY ON THE ROAD.



Every aspect of production, operation and development is handled by our talented team of 29 people





Find out more

<https://www.clem-e.com>

<http://www.clem.mobi/>

Let's keep in touch

Adrien Lancelot

Business Development - Europe

adrien.lancelot@clem-e.com

+33 6 64 55 67 77