

The energetic transition

Catalonia (Spain)

By: Mar Poca, Josep Puche, Bernat Milla, David Neag and Clàudia Boqué

Who came to our high school?

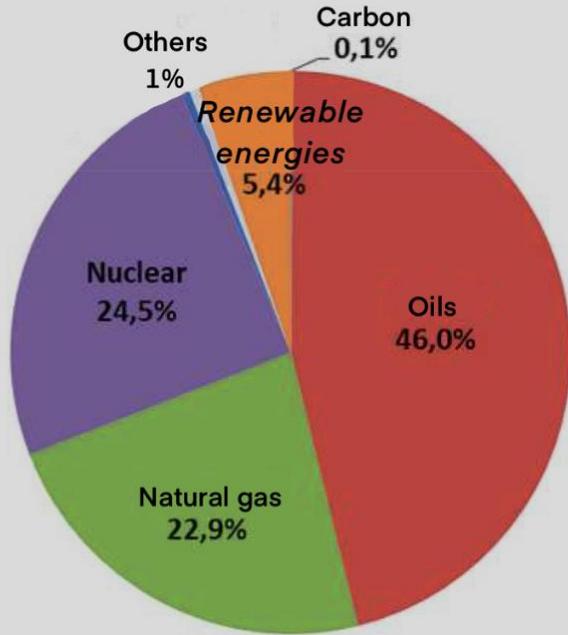
Sergi Saladié, an University Rovira and Virgili teacher, came to our high school to explain us what is the energetic transmission and what we have to do to save the planet. He say that we have to start doing something because things aren't going well.



Objectives from 2013 to 2020:

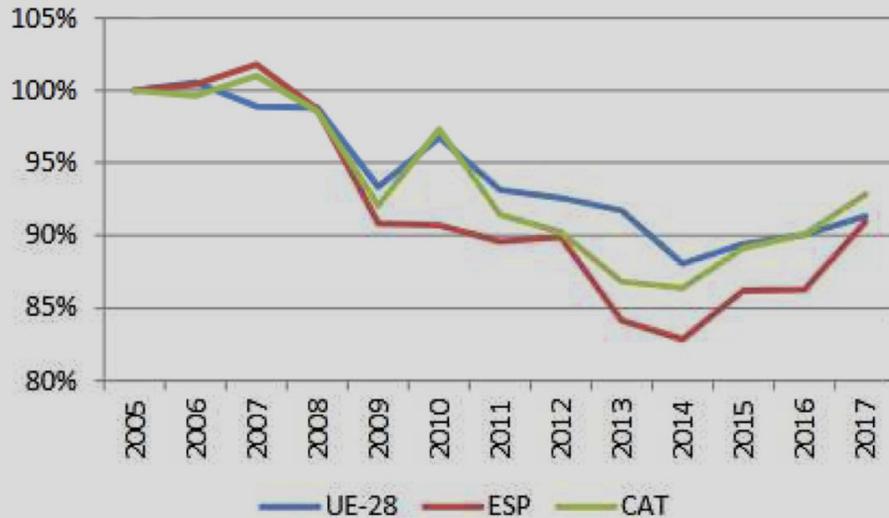
1. Increase the use of renewable energies up to 20% of gross final energy consumption.
 2. Reduce primary energy consumption by 20%
 3. Reduce greenhouse gas emissions by 20% on 2020 compared to 1990.
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Primary energy consumption by energy sources in Catalonia in 2019



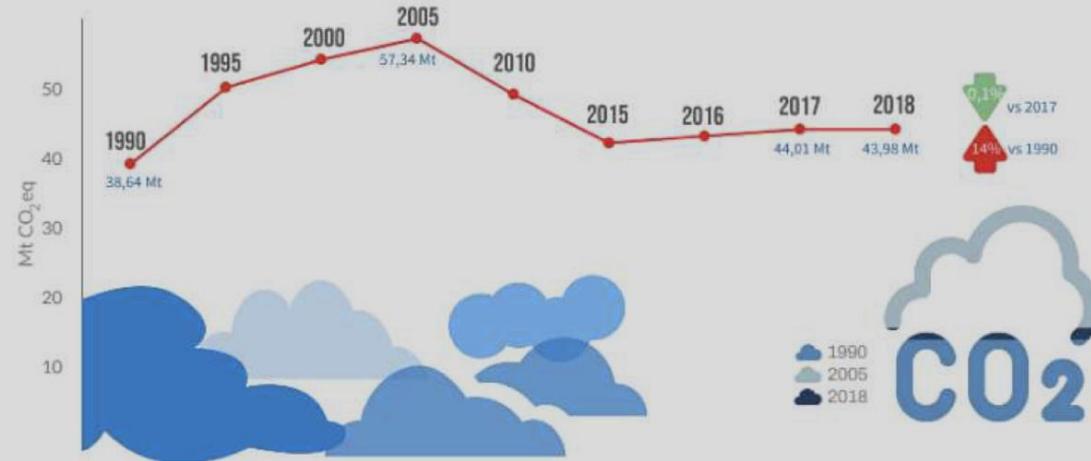
The first objective was to reach 20% of renewable energies, but in Catalonia in 2019 we only had 5,4%

Evolution of primary energy consumption



The second objective was to reduce primary energy consumption by 20%. At first we were doing fine, but in 2014 instead of reduce it we increased it.

Evolution 1990-2018

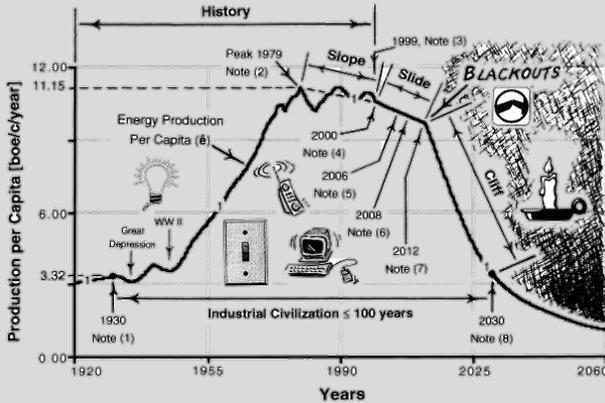


The last objective was to reduce greenhouse gas emissions to 20% by 2020 compared to 1990. And instead we increased it

That leaves us 0 of the 3 objectives we had in mind for 2020.
So now we have to act fast before it will be too late.

Decreasing availability of energy resources

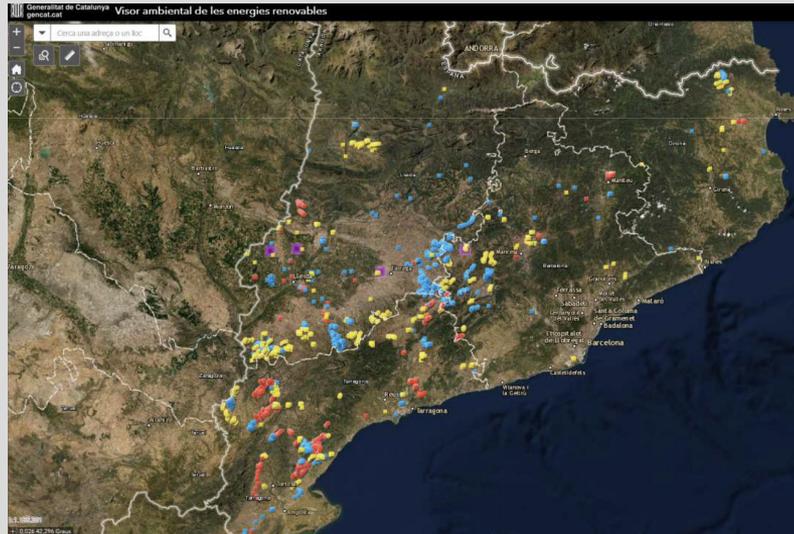
We're exhausting the energetic resources. That means that in 2050 we aren't going to have regular conventional oil, because we are consuming more oil than the production. In 50's to 90's we discovered many sources of oil, but now oil and natural gas reserves are dwindling, so in a few years time we won't have any more. There're some theories, one of them is Olduvai Gorge Theory (1996). The industrial civilization (as defined by per capita energy production) will have a lifetime of less than or equal to 100 years. The theory provides a quantitative basis of the transient-pulse theory of modern civilization.



Proposal for the installation of large wind and photovoltaic power plants in Catalonia in February 2021

Wind power applications:
3,582 MW / 730 wind turbines

Photovoltaic power plant applications:
3,463 MW / 6,696 hectares



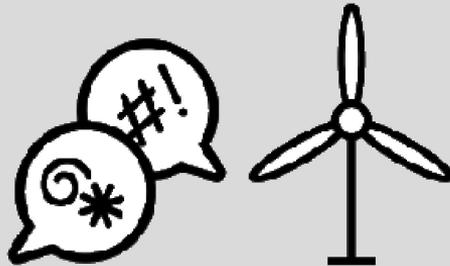
Main challenges/actions facing the lack of renewable energy planning in Catalonia:

Establish local / regional criteria for territorial and landscape integration of large renewable projects

Define self-centered territorial models: Priorat (Catalonia)

Demand model definition, planning and clear criteria: lobby

Promote municipal distributed and community management renewable energy projects



Thank you!

We hope you liked our presentation. See you soon!

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