



report

After a couple of days in the north of Italy we decided to escape from the heat wave by heading towards the north of Europe.

After some consideration we decided to go to Switzerland, hoping to escape from the temperature of almost 40°C in Italy with the aim of getting to know a country where we thought that in the field of energy might be of interest for its experience on a local level, which could be adapted in another small country like Switzerland such as the Basque Country.

So we ended up in Como, a small town divided in two by a rather peculiar border where the only regulation for crossing it was to pay 80 euros in exchange for a sticker as road tax in Switzerland.

They did not seem to care about anything else. So joking about the peculiar way of welcoming people that they have, we entered the country from the South side.

The first impression we had was the amount of water that you can find in this country in spite of the fact that it has no coast. The whole of Switzerland is strewn with rivers, channels and enormous lakes, which add an even greater image of fertility to its landscape, already rich in itself.

Really, the trip from the beginning of the south of Switzerland to Biel-Bienne, our destination was spent observing the green lakes, mountains and valleys from the van (except poor Manel, at the steering wheel,- the only landscape that he saw was the badly tarmacked highway)

On the other hand, after many days without sight of even a small cloud, shortly after entering Switzerland we saw rain again. Later we discovered that here the changes of weather are fleeting.... from a clear, sunny day we changed in ten minutes, to a storm that left trees uprooted in its path.

After some hours travelling we arrived at Biel, a village of 50,000 inhabitants near Bern, located just on the shore of Bielersee lake, one of the 3 Great Lakes of that corner and surrounded by green mountains such as Mont Soleil.

There Isabelle was waiting for us, the one who for 5 days would be our objective for the hundreds of questions that we had about Switzerland and its people. Thanks again to Isabelle.

The first thing that strikes you about Biel is the standard of living that they have. Just by taking a small stroll around the city you see how well-taken care of all the streets and public squares are. You rarely see anything dirty or broken; how 18 year olds drive Porches and BMWs to the door of their own house or how in summer the discotheques are closed in this area because the vast majority of people can go abroad every summer. Isabelle explained to us that the majority of her group of friends were not in Switzerland, and that is something very usual in this place, at a certain age, to leave and to try and earn one's living in other countries from a very young age.

Of course not everything is perfect, if you take a walk near the railway station you come across some groups of people without a roof over their heads livening the walls of the tunnel up with their music.

Even so, nobody can deny that in Switzerland the people live well.

Unemployment is unusual in this area. We were told the average wage in Switzerland is around 1800 euros... so you can see why we paid 5 euros for a bottle of water!

Another subject that surprised us and in a way made us envious was the ability that they have for languages. In Switzerland 4 languages are spoken mainly according to the zones: German, French, Italian and Romanche-talked in the mountains. So understandably from childhood they learn German and French and according to which zone they are in, Italian and German.

For this reason from school, and having already as a base another language of the same linguistic group as is German, the great majority of people (mainly the young) have a good command of English. And to top it all and to our surprise, we met some people who either spoke Spanish or were able to understand everything that we said. Switzerland is a country that because of its geographical position and its political status has a very diverse society in the linguistic field.



The only proceeding to circulate was to pay 80 euros in exchange for a sticker



The axes of the shield of Biel



Isabelle, our contact in Switzerland, with the logo of Ekogaia



Montage with a road sign of the centre of Biel



The contact with the people was very good. Although you get the impression that in the beginning they can be a little bit reserved when meeting people, once some words have been exchanged you realize how wrong you were. For 5 days the doors of the houses of people that we met were always open. And they have offered to help us at any moment. Perhaps it is because, as we commented before, they travel a lot, and for this reason they have this hospitality towards the people who, like them, have been abroad. From a very young age people becomes independent, they go abroad, or rent their own house, something much more habitual here than in the Basque Country. Among other things, for one very simple reason, the cost of renting a house in Switzerland, where, as we said, the wage average is about 1800 euros, is the same as that in Basque Country, where the work situation mainly for women and young people, is precarious. This is the main reason why there is a difference between the people here and us in terms of having total independence almost from the age of 18. This is a luxury that nowadays we cannot even imagine.

On the other hand another fact that surprised us very much, and that sometimes, we must also admit made us laugh, is how correct and civic Swiss society is.

It's true that we only got to know well a town of 50.000 people and its surrounding area which maybe can't be compared with other cities, like Bern, but from what we saw we do not think it changes that much.

There is a very good example to explain what we mean: in Biel, as is normal, they have a service of rubbish collection. And they have official bags as well to deposit the rubbish. Up to this point all seems normal, but here, when you say that there is something specific for something, in this case the rubbish bags mean that you must use that, exclusively for that purpose. Thus it is understood that to make sure that everybody uses the official bags in Biel, they have a police force for rubbish whose job, among other things, is to detect the ones that do not use official rubbish bags. As a consequence they are able to open the rubbish in search of some data that leads them to the offender who then gets a large fine.

Although it may seem that in general they are very strict, in matters such as drugs they do not seem to have the same position. Thus, although marijuana is not legal in Switzerland, there are shops (hemp shops, grow shops...) that are almost exclusively dedicated to its sale, although outside they do not say explicitly what is sold.

In our opinion it is something that is quite acceptable, in spite of not being legalized. Therefore it's normal that these stores maintain from the outside the image of herbalist's shops, and they do not advertise the sale of grass- although it's well known that its sale is considered illegal. The contradictions of this society are based on the external image.

These 5 days have been useful to realize how great a jump there is between, as we say, the European society and ours.

The prologue of what we can expect these 100 days that we have ahead. The beginning of the trip, the first jump to a Europe that although it pretends to be sold as a united organization keeps as many differences as kilometres that separate it.

It goes without saying that those 5 days flew by, what with the work, the people and the places that we met.

It is certainly a place to return and to get to know more calmly. .

ekogaia project

The work of the 5 days that we spent in Switzerland could be divided in two different parts.

On the one hand the part of infrastructure and installation of our house that is the caravan. To prepare everything and carry out the final changes before embarking completely on the trip.

We prepared the caravan so that the 4 people who would make the trip could lead a normal life. We left without completing the aspect of energy in the caravan, as we will finish it in Germany where they are specialized in solar energy technology that we want to use to obtain self-sufficient energy.

On the other hand, and the main reason for this trip, we got to know more close at hand the power framework of Switzerland and its experience with renewable energy. So we decided to visit 3 experiences at a local level of 3 different types of renewable energy: Solar, Aeolic and hydroelectric.

The 2 first visits that we made were in the same area, at the top of Mont Soleil, a mount located a few kilometres from Biel. We visited the solar installations and then we crossed the path to the Mont Croisin, where there are some Aeolic generators.

A stall of sunflowers in the market of Markplatz of Basel



Part of a statue of the centre of Biel



Logos of the plants, aeolian and solar, that we visited in Switzerland



The solar power catamaran that company BKW has working in the lake of Biel



Indicators of the hydroelectric station

- **Solar plant of Mont Soleil**

It's the first power installation of Switzerland, but it is not intended to be a production station but a research centre. The 4500 square metres of distributed solar cells in the 20,000 square metres of land, produce per year between 500,000 and 600,000 kWh, with a maximum power of 500 KWh, which corresponds to the energy cost of 200 people. The main reason for this plant is to experiment with different solar panels that nowadays are on the market, in order to determine which are more appropriate according to where they are located.

In addition to this solar system in Mont Soleil, the same society that controls the solar installation has in operation a catamaran in the Lake of Biel that works completely by solar energy.

- **Aeolic plant of Mont Croisin**

This one is a small installation formed by 6 generators of great size between 67 and 76 meters, self-adjustable with the wind direction, and a maximum power of 4,160 KWh. This plant produces per year about 4.3 million kWh with which it could supply the annual cost of energy of 1400 people. At the moment this wind energy is commercialised between companies, cooperatives and people aware of the need for renewable energy, since nowadays the cost of this energy is greater than the traditional one.

- **Hagneck Hydroelectric power station**

This hydroelectric plant is located within the Aarberg Channel, in the centre of a natural park and has been working for over a century. The primary target of this plant is the supply of energy, in a renewable way, to the town of Biel and the corner of Seeland.

It has 5 generators of 2,5 kWh with which they obtain an annual production of 80 million of kWh that corresponds to a third of the power necessity of Biel, which would supply the annual power cost of 50,000 people as well.

It is to be seen how with the passing of the years and the various improvements the power station has been receiving; nowadays its operation is completely mechanical, without the intervention of electronics.

In general characteristics these 3 facilities have a great point in common, the perfect integration within their natural surroundings, without bothering or interceding in the life of the environment. Specially the hydroelectric power station located within a natural park, on the shore of the lake in an enviable natural place, and crossed by a footpath.

These types of small facilities are a good example of the capacity of integration and environmental non-aggression of the renewable energies.

In this sense it is necessary to remark that these are not isolated experiences but that they are part of the general plan of divided power self-sufficiency in the cantons. Thus, the objective is that the 25 corners into which Switzerland is divided are as far as possible, totally independent and as well, giving a special interest in the renewable energies like in the 3 cases that we have been able to see at close quarters.

In each canton there is a small company that is dedicated to managing the power plants of its zone. We have been able to see the work of BKW/FMB and to find out how these small experiences are being threatened by the great German energy companies, that knowing the viability of these plants at a local level, are nowadays pressing them to be integrated within their vertical power network. Considering what happened this summer in the U.S.A., these types of small and local facilities serve as a counterpoint example of what can happen with the great companies and their great blackouts.

Luckily, these experiences at a local level are continuing with their good work.



Poster and signal of security in the hydroelectric power station of Hagneck



Peppers that the workers of the hydroelectric plant let to dry in the cellar of the machinery



Recording the distributors of hydroelectric energy



The shields and the geographic situation of the 25 cantons that conform Switzerland



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