**Interview C8 – director of cooperative Jaen**

**To begin with, can you introduce yourself and the cooperative?**

This is the [name] cooperative, this company comes from a merger of two companies. This was the optimal structure to reduce costs of the mills in the municipality. Ok, generally in Spain all towns usually have two or three cooperative oil mills, right? It does not make sense that they dedicate themselves to the same thing and there are several companies in the same area. They usually separate due to personal conflicts, where a part does not agree with the others and they separate. Well, this cooperative started in 1949. More than half a century ago, that cooperative was separated by part of members who were unhappy. Generally they were the members who had the most money. It separated because the interests of the little ones do not always coincide with the interests of the great ones. In 1953 they separated, in 1999 they rejoined.

Okay, I'm going to take advantage of the presentation. The treasurer is also coming today and president, you can ask them as farmers too and as owners. I am the director and I am an employee. The mission of the old cooperative was basically to take the olives from the members and extract the oil. Why do cooperatives appear? Because the farmer himself is not able to get that oil and needed to deliver his olives to an industrialist who bought the olives from him and paid for oil. There was a disbalance in power between the industrialist and the farmer and the industrialist took advantage of the farmer. In 1950, more or less, movements appeared in Spain, cooperatives for these small farmers to match their interests in getting that oil and being able to sell it. Well after that we changed the vision of the company. In 99 the two cooperatives [names] reunited.

The old cooperative had the mission of getting the oil for the members and sell it. But when, we expanded the mission. We are not only going to do the service of producing the oil, but also other services. What services do we give? We give advice on cultivation. I am a technician, I tell them what products they have to use when there is a plague, so that pests are controlled. We make newsletters when it is necessary. I have seen on the door a tenth bulletin that there is a humidity and temperature problem. You have to cover the loss with copper to avoids effect on the olive grove. When we sell the products we not only sell the products, but we also give you water, water for treatment, we sell diesel. We have a machinery service, for those small farmers that are not large enough to have their own machinery. We give machinery service, probably what [name] told you. Service management is for those small farmers who do not have capacity to have an agrarian company to supply it. They are the ones that we give that service to.

**Can they rent the machinery?**

Yes, we offer the machinery for rent. [name] comes now, he is the treasurer.

**(the treasurer of the coop enters)**

Okay, well, in cooperatives they are governed by the general assembly. It is as if it were the shareholders' meeting. The shareholder choose a board every four years as their representatives. They are the president, treasurer, vice president, secretary and vowels. They are the ones who say where the company should go and who runs the company. Apart from what I have commented on before we give the farmers the supply of all the materials that they need: diesel, machinery, phytosanitary products, information. We give training, we have done training courses. In addition, we provide them with information on pests you have to deal with. We have a traceability of what they have spread on the farm. Ok, these are the agricultural parcels of our partners, a few little fields. If you notice, the cooperative may have 5000 hectares, but the average plot is on average a hectare, fifty olive trees. There are many plots. The problem is that there are many small islands. When they deliver the olives we indicate from which plot the olives come. That generates traceability to the bottle. From that we know what it is. What have we done before? What have we dealt with? What pesticides have we dealt with? We offer help with the EU-CAP for all the members. We have aided young farmers and we have the project, mentioned by Manuel Parras, of the group cooperative Olivar traditional, where we see a series of calculation of costs and we have seen that if we group some farmers together to do the jobs in the fields, we improve their profitability and we have made this strategy. Well, this is practically what we do in the cooperative.

**And how many members do you have?**

A thousand, more or less.

**And those that have larger plots, how many hectares do they have?**

Okay, not only at the level of Cooperativa [name], but at the level of Jaén for 70 percent, three-quarters of farmers, the normal amount of land is two hectares. The normal could also be divided into plots of half a hectare at provincial level in Jaén. That is the typical farmer. It's true that there is three four percent that has many hectares.

**You said that the interest of farmers who have more olive trees is different from the smaller farmers.**

Yes, sure. In the end, they all benefit. The small ones are also a big one, because they are united. Look at the cost calculation. Cooperative A is the cooperative of small entrepreneurs. Cooperative B was large entrepreneurs, but their turnover was smaller. Their costs were almost double that of the small ones. It is important that this is seen. The small ones get a cost of 0 26 per kilo oil. If the big ones produce a kilo oil it would cost 42 euro cents, almost double. But when we are together we managed to get down to 21 euro cents. That's why the little ones benefit and the big ones benefit. But in this specific case, as the small ones are more numerous, they have got more benefits.

**Why are the costs of the big ones more?**

Because of the infrastructure. This is a plant, the plant is our company. This would be the line for cleaning the olives. This is the oil mill line where the oil is extracted. This It is the section where the oil is stored. Ok, since I'm big, I can distribute three people on five lines. If I am small, I put a person for each line. In addition, when we did the merger, we went from having four and two, to six lines of cleaning to ten cleaning lines, because it is in the interested that the partner can deliver instead of waiting two hours, on average.

The personnel expenses are under 90 thousand euros, the cost of supplies 25,000 euros, everything goes down. Up to this point it will be really the economy of scale and that results in savings in costs. Then there is another piece of information. The University of Jaén has made the value chain of extra virgin olive oil. We have calculated the costs. I have worked with the University of Jaén. in this case it was the of the costs of the oil mill and the field. Notice that if we put in a graph how much it costs to produce a kilo of oil only in the case of the mill, depending on the volume. If the amount of kilos of oil that we produce is 122 thousand kilos of oil, extracting a kilo of oil costs 60 cents. As I increase the amount of kilo of oil we got to 15 cents. The peak is more or less at three million kilos of oil. So when the cost trend changes if we reach the 3 millions of kilos of oil.

**What do you do with the pomace?**

We produce 10 million kilo of pomace and 2 million kilo of olive pits. The pomace until last year was a residue that we had to pay for. From the last negotiation on it is a by-product that has an economic value. So what we do is that they take the pomace to the orujera, we remove the pits, the little oil left and we send it to a company. And that company what it does is it takes away some more of the oil that is left. And then a residue remains. They generate energy by burning the residue. We are a leading country regarding generating biomass for energy. We have brought the pomace to six different orujeras. Do they treat us well? Yes, and If not, we go to another one. Although it depends on the conditions.

**What do you do with the olive pits?**

We sell the pits to a company that is dedicated to cleaning them, wash them, put them in bags and sell them. And part of it the members can use them in their boiler, a small part, the largest part is sold to a company that treats, cleans and sells the pits. Here we also have another product that is new, which is pruning wood. When the olive trees are cut down, it is pruned, and there are two fractions; The branches for which the cooperative has a machine that chops it, shreds them; And the thicker branches that the member brings to us and we sell it. Another company generates biomass from it and sells it.

**What volume of pruning waste do you have?**

Very little, very little. We are talking about 30,000 euros. Ten thousand kilos. Very few.

**Why do not all members bring it?**

Among other things because we all have a fireplace at home, in the kitchen, where we use our own wood. We use most of it ourselves and what the member has in excess inside, they bring it to the cooperative, but most it is used in the house.

(Treasurer: We use most because everyone in the rural area has a real fireplace and we use heat, even to heat water and all these things. We do not need public services, we have a house for which we use our own wood)

**And you were working on the project to unite small farmers, to work more together. How does that work?**

We calculate the costs of exploitation. We have invented a relatively new method in this sector, which is multiply operating time by unit cost. The time that it is used, the resource for the use and the cost of the resource. We have made an initial theoretical calculation. We have said, if a tractor is running at a certain speed and is working at a surface, it gives me a theoretical time. For example, if in a plot like the ones here, which are small, there are inefficient areas which are the yellow ones. (showing the presentation)

That time is important. And if I also have to go to doctor, I have an inefficiency and I waste time. If also in the same day I have to go to several agricultural plots, I lose time again. I am increasing the operating time. When we multiply the time by the unit cost of the resource it will give more total costs. The bottom line is that the size of the agrarian field influences production costs. The savings from going from 0 to 50 to the optimal would be 500 euros per hectare and year, which is almost the PAC grant. Its a lot money, right? Although, well, that would be a part. Another part is yes I am small, my costs are higher because my amortization is more expensive. How much does a small farmer cost compared to big? Well, there is the difference. Notice that here the limit was on 35, 35, 40 hectares. Ok, I have already commented before 75 out of a hundred farmers are small, with a plot of on average two hectares.

So what are my production costs? What I am trying to convey to you is the need for a change. Why? Because for these market prices and these production costs, they are above the market price and are losing money? If you do not understand why we were doing the calculations, you do not understand why your production costs are so high. People did not have to sell the olive trees because it is not profitable, that can change. This is a graph of the province of Jaén. These areas are green, these are profitable plots. In red are those that are not profitable. In this part, profitability has increased the CAP subsidy and it is stated that everything you are seeing is clearly dependent on the CAP grant. Yes, but there is another factor. Which is that small farmers work on their farm, they take the olives from the field, does the work and has a saving because of the work the family does. This amounts to approximately one euro per kilo of oil. If I increase the grant income and take away the euro cost of the familywork, a real cost appears, which is higher than the market price. What is the problem? Well, that family labor, which is one euro, it is in danger because people are getting older. Because of that this sector, which is the life of this province, is seriously in danger.

Also, let's say is that the olive oil economy worldwide, is a productive system that it is not profitable at the moment and there will be an abandonment of fields. In turn there will be shortages and a price increase. Supply, demand. But it's not like that. Here I put the case of the traditional olive grove. This would be a graph where I express the yield per hectare in benefit and loss. How much is sold to market price of oil would be the profitability per hectare. This would be the traditional model of Jaén and this would be an intensive or super intensive model. The new plantations. What happens? Here I make a little bit of money, but the rest of the world makes a lot of money. Does that make a difference, is it 800 or 1200 euros? What does it mean? There is an increase in super intensive plantations and intensive because it is more profitable. There are producing areas here where they produced sunflower or cereal that were not profitable. They are becoming intensive olive groves, which is why production of the oil is increasing. Demand remains stable, resulting in falling prices.

How do we face the problems? We face the problem by telling those little farmers who are here. Okay they give up their exploitation to the cooperative or a service company to make them profitable. Why? Because that way they will be able to make their exploitation profitable. Why? Because so far this is what we are doing: Everybody goes to the fields with their little things and such, and that means a loss of 500 to 1000 euros per hectare. We have asked the members of the cooperative: Who wants to work in the field and who does not want to work in the field, to separate the two. To separate the farmers who are not profitable, and who want to outsource management to others, and the ones that want to keep management of the olive fields? We have asked everyone here in these areas how much they have worked roughly. We have said we are going to enact four strategies. One strategy would be to ask them whoever wants to rent the exploitation. Well, we asked someone to build a mobile application where the member can give his intentions. One wants to rent the olive trees, one want to rent out the olive trees. Well, here you can check if it matches how you want to rent and what he wants from you. If we join 3 fields we can reach the optimum. Basically the jobs that we have done with the operating group has been to work in zones. We have done work by areas, we have done the chipping by areas. We have done a treatment in zones, a route with which we have improved five times the times of operation. And of course, we optimize the time of the tractor. We have put ourselves in the agreement that there is a profitability and there would be a company that manages it. Well indeed, the cooperative is better, I don't know that the cooperative has a problem. I want to say that you have to find another member. This person would be taking the tractor from the cooperative. He comes to the field the whole afternoon to collect. Services need the same amount of gasoline. The equipment of the cooperative is the best way to manage and optimize resources. We have basically separated those that need to be managed for the farmers, because they are no longer contributing their labor, because it is no longer profitable. In this town we have even incorporated 1 young man grants for that. The intention is to get zones of 3-hectare plots covering 50 hectares, which is the optimal for this small, young entrepreneur to be able to give profits to the elderly. We have not yet achieved this, but we have made the tool. Although here the difference is in the mentality and it is very difficult. Traditional cultivation generates traditional mentalities, it is very difficult to change the routine. This was profitable for a long time, so it is very difficult to change that mentality. In fact another thing we have done is transform. We have transformed the olive grove instead of being a traditional one to an intensive one. The intensive is not super intensive where they are all together. It is not the three stems from a traditional olive grove. We have separated the trees three feet apart so that harvesting can be mechanized in the intensive olive grove. Today we have managed to put together a small plot, this is the cooperative's project. It is the tool that we can give the members so that in the future he can change. Among those that are not profitable they can outsource their management and those who want to work here in the town can do something at the management level of their products.

**Since when are you working on this?**

I have been researching this for 12 years now. I'm finishing my doctorate in the university, what happens is that I did not advance a lot. Now, I'm going to publish and I make public results. Miguel, my article and what we are going to put it in a paper. My initial project was complete transformation, but as a result of the numbers, I realize that it is not simple to transform. Putting intensive olive groves is the first step. It would have to be profitable to make large plots, because it does not make sense that plots of half a hectare are transformed. There is also an opportunity that we have already commented that 50 percent of the population will probably want to outsource the management of their olive trees. That is an opportunity for us to organize those olive trees and manage it efficiently. That's why we are working with the university and with the Diputación de Jaen. We are in the strategic plan. The farm management section in the cooperative tries to group all the plots and small farmers to get cost effectiveness. That's the project.

**Are there members who are open to this?**

It is difficult. It is still not profitable. When it is profitable, it will be easier to move. I have been with this for a long time. In 2015, 2016, 2017 I gave talks around the towns because the cooperative called me and we had a good chat. When the oil price is at 3 euros I realized nothing happens, that it is not worth it, because they did not listen to me at all. Two years ago, the oil price dropped to 2.90. I gave a lot of talks, people were pending, but now it's back to 3 euros. We have already forgotten. And then the culture that we have, we come from a family business where we have never made losses. We also come from a culture of the previous century right? Where the field gave everything because it is the industrial machinery. I think it caused everything. We all have the same roots, we need to improve. Somehow you lived and there were so many problems. Which, by the way, is now recovering because of rural houses where people want to rest. Please do not go buy 30 tractors when one is no longer going to use the field. Yes you really want to optimize the resources we have. This is the spirit of all the studies that we have had for so many years. I can to tell you a little about the depth of the problem. When I started to investigate the problem it is why all this comes from the fact that people come here and you account his problems, this is that here he has opened me and here all the world came there and a retiree arrived who is already dead. So to see what the olive tree did for the selection and get out of problems because the accounts do not come out. I started to investigate and then I found on google an article. I found in the article the objectives that are set and the actions proposed for the conversion of the olive grove. I have seen articles on this, my solution, and many other ideas appear. Now the olive grove conversion appears, the farm assembly for joint exploitation, many things. But the article has a downside. The article is from 1972. and after that came the CAP grant. That greatly increased the power. The mentality of olive grove that we have already forgotten all the penalties until it is last resource. Surely people do not want to do this but our obligation is to generate a tool so that the farm benefits them. This is our responsibility.

**What are the biggest challenges here in the sector for the farmers, but also for you?**

First, costs, profitability. To make the olive grove profitable there are three strategies; Increase the size of plot and increase farm size. The only way to do this is by a massive sale of land that is the ‘landgrabbing’. There are many articles on ‘landgrabbing’ which is a method where some investors are left with a lot of land from a lot of people. Imagine that there is a very large devaluation when the profits do not come there is a successive abandonment of the plantation. That successive abandonment generates abandonment of land. When the devaluation is so high that it represents an investment opportunity for groups of investors, they buy everything, They generate a very large investments resulting in very large depopulation, because the wealth is not shared. That is a fear that exists not only in this sector, but at the European level. Small farmers who sell to an investor. Yes, the first reason is costs. Costs need to be reduces by increasing the size of the plot and exploitation in an organized way. Either leasing the farm in zones or an outsourcing to the services companies. Okay, I pay you for these two points. You go there and you do everything for me in a day. Transformation of the traditional olive grove, but not to a super intensive, but an intensive one like the one we have to be sustainable but that allows for an increase in production. The increased mechanization of the crop is the second challenge. The third challenge is quality, ecological. Imagine this farmer here wants to change his exploitation in organic farming. Do you think he can do ecological cultivation? No, if the neighbors don't do it. This is the my mother-in-law's plot, by the way. Then it couldn't be ecological, unless there is a group, as we have commented before. So this whole strategy is the first step is organize farmers and professionals, to see all this. Yes, to be able transform this economic crop. In order to make better quality, once we have the circular economy, we have to try everything what we get from the ones who stay. It goes in that order. In my opinion those are the challenges we have here.

**You have said before that you do projects for young people, which projects?**

Simple, imagine [name] or my mother who is also older, my mother-in-law, this is a public problem, the age is more of a problem than anything really. The cooperative, the Junta Andalucía, the City council, whoever manages it. We make little packages, packages of 50 hectares divided into plots of 3 or 4 hectares, which are 1000 euros per hectare more profitable than the rest. We give the young people work and that young man gives a profit to Pedro or my mother. Well that's the plan. Ok that's where they come in because we are also generating a generational change, for the youngest people. We are sustaining the population in rural areas. We are sustaining it because we give a quality job all year long, not a temporary job. Quality and mechanization and the benefits are distributed

**There are young people who are still interested in working in the field?**

Young people are interested, look at this idea, for example. This is not mine. This idea I learned. I worked in Castilla y León, Burgos, Valladolid, in a program that had to improve the sanitary of cow’s milk. Well then when Spain entered the European Union, the dairy sector in Spain became obsolete, because we cannot compete with others. The typical rancher was a rancher with eight cows, eight or ten cows, without milk quota. That was what typical rancher. The towns were very depressed. It reached the town and the towns were made of land. Instead I came to a town where there was a lot of wealth. The few young people who stayed were left with the cows of all the elderly. They hired a veterinarian, they were certified with paschal milk and they made money. It has been published as an example of what we can do, using resources in an efficient way in this sector. In short, we are in the 21st century and we cannot keep doing what we did. Look, this example that I have given you can be applied with the calculation method that we have done, where we are able to elucidate ineffective methods from small farms. I know it can be applied to anything you do. It simply is used to pool resources and manage efficiently, as that generates a lower need of manpower. It's just what it takes for a new generation to take over. In the end the villages are depopulating and when they have to work there were four thousand five hundred people and now fifteen hundred. So all these ideas can be applied in any sector. Another example in Guadalajara, Guadalajara is a town that is next to Madrid. Guadalajara, all the young people come to work in Madrid because today there was no work to be done. But some young people stayed in the cooperative. The president, he went to Madrid to negotiate costs, he wanted to talk to the owner of Fer Tiberias, which is a large fertilizer company in Spain. They laughed at him, the man from Guadalajara. But when he negotiated with the president, he said how much he wants, a large amount? Why? Because it had had such a big dimension for the whole cooperative that he was able to negotiate face-to-face with a business owner of fertilizers. That is why I say that the opportunity is there. The economies of scale. If the farmer does not see his profitability, it is very difficult to get into this field, because in addition we have a culture of olive cultivation. This is corrupting the mentality of people.

**What are the sustainability challenges here?**

Well, what we have commented before is first to contaminate less, pollute less. Two weeks ago there was a company that offered us to generate biogas with pomace and solid waste. It would be good. What happens is that still in the investment is not in us. We have not yet seen that it is profitable. In fact, those who did offer that project, they told us that the plant costs 20 million euros. This costs thousands of euros. I'm not going to invest millions of euros in a by-product.

**What do you think of this biohub? (Susan shows and explains the biohub)**

Here, for example, the fertilizers we use are acidic, this whole area is very alkaline, the quality and organic matter is below 1 percent. Ok so there are economic benefits.

**Would the cooperative be interested in having a role here?**

You always have to see the numbers. For example, when you offer the transport of the pomace, we will compare you with the companies that take the pomace. This amount ranges from nothing to 50 euros, which more or less that is what they are paying.

**Are people open to provide biomass, for example, pruning remains?**

If we organize the collection of that biomass then yes, if not, the transport is almost more expensive than what we pay them. The trick is to organize and centralize the collection of products.

**Is it something that the cooperative can organize?**

It is a matter of doing the calculations, as always and what I tell you is what anyone tells you, another cooperative. In the end what we try is to achieve the highest profitability for our members. Yes it is true that in this sector we are focused on the short term. It is difficult for us to focus on something long term. You have to have very good value. Then I also think that at the commercial level would be good to get past zero two zero. This kind of circular economy thing, I think that will be the future.

**What are the obstacles to developing such a system here?**

The obstacles? What for? To implement it, to generate biofuel? I do not see it. If we talk about pomace it is simply comparing what company gives us a higher value. That would be the only thing. And if we talk about the pruning waste, the logistics, there is no other obstacle.

**Now people take the largest firewood here to the cooperative, right?**

A few do, although it is true what [name] said before and that is that there are many heaters that run on wood. But people have become more comfortable, some are larger and have a lot of wood. That is why we have given the members the service, to give them that possibility, to bring the wood and sell it. It is paying very little, it would be three thousand thirty euros with very little. And there is no transport system, they bring it themselves. But since it is family labor, they do not account for the labor costs. That's why they bring it. If it was a company that did the transport from each small field it would not be profitable.

**Can it be that this new system is going to interrupt a system that already exists here?**

No, I repeat, we compare that process with the one that we use right now. That is the only thing. In the orujera they are using it to generate energy where we take it. I understand that it would be necessary to agree with several cooperatives in the area to obtain economy of scale that allows us to be profitable, because to what numbers I'm seeing from similar processes need a minimum amount to be profitable. A minimum amount and a commitment of 10-15 years to be able to amortize the investment I would understand. I think that should be looked at

**What do you think of the positions of the actors in the Power-Interest grid? (show the power interest grid)**

I think the Junta de Andalucia is well positioned here on top, they have the power. They have the key, because the mentality of people needs to change. And politics can do that, by making rules, obliging us to do it and also help with incentives. It is the only way to change the mentality of the people. So yes, I think they are well positioned on top.

**And the cooperatives?**

Yes, they have interest, and also power. Yes, the private mills have less power, they represent the sector less. But yes, for the rest, I think all the actors are well positioned.

**Are there other cooperatives that do projects like the ones you explained?**

No, we are the only one.

(Treasurer: We are here to help the community, that is our place. Except for people like Antonio, with concerns, because also he will also get rich because he has this thing for all the things that go well. In fact, the University of Navarra accompanies us for a lot of years. Because I am with my old color, moving and learning. I am the eternal one of why I am like this, well I like color, because I always learn a lot and of course, but normally people settle. Here, the Governing Board no longer has to give it the guidelines on how to run the company, but who runs the company? The manager, right? It has the governing board above and below it has all the members that according to him are not right. Will it be profitable or not the great crazy thing in the normal management of the whole year, so he has the factory master, the master of hours of truth. I mean, everyone has one thing to accomplish of all services. For instance the parts of the gas station, the fertilizers, the water. The water that is hard to get right now, there's a queue of five tractors and others go there because we have five dispensers of water, right? He calculated very well, he rode with his Narayen card and I will tell you everything that corresponds to you according to the farm. The truth according to which according to the olive they have stuck. Be careful, because he can have a lot of faith that I can wear it somewhere else because I'm from customs, right? Here they have gotten olives he will reciprocate for it. Next treatment up to the liters that correspond to you because there is no dry land. It already happens that this goes with me, etc. For the rest by all cooperative services. And here, apart from that we are the board, who directs the mill? Antonio, the manager, he is very humble. He is a good manager, not physically nor with writing, but in how he feels and thinks good. I think he also wrapped up with the governing board because now they can't change our water, but they don't need this. Why do we have this modern machinery? Well, they are used with generational without generating such a valid being the economy of the cooperative that will never falter because at the end of the day it is patrimony of the cooperative, are the 500 that create 500,000, half a million olive trees. That is a heritage. The only problem is that a little bird found out what are we going to do if he always comes, because he is very sustainable. There is an economy because even if the families are small, they have either a tractor or a Land Rover. If there is a lot of free time and that of carrying the things of his cousin, his father, his sister, in such a way that its economy works. And we actually have a pretty good stable economy with the olive grove. And this restlessness of power we are waking up because it is not carried by the side of two years that we have already commented that he already got a grant.)

This is what we have done with public money from the Junta de Andalucía, of course. The only change of mind that I have been able to get here is to work together. They waited in a que, they were queuing. That is not for free. But look, we have transformed 50 free olive groves in a workshop. But this year we are no longer subsidized, the perhaps 50 such have already been transformed into the Madrid model. And the change of mentality comes when people see it. What happens is that people are leaving my partner cooperative, because it was very overloaded with bureaucracy. Cooperatives don't usually have a lot of staff. Here we work with people and the advertised person and we bill thousands of euros that we are always running and we say I do not rather than increase, which is why it is even worse. And other companions who are dedicated to what there is no more time. On Wednesday we have an exit option because all this is real. Later the one who comes from the photo where he sees them sees him and the auditor.

(Treasurer: A lot of bureaucracy is somehow holding us back too. I don't know why, because it doesn't improve. Last year, with the traceability that we had to follow up, they applied it to others. Sometimes they are asking for more things than other times. Above all is the mentality of people. Instead of this and above all to understand that they did not go to university. We have not defended life, at least not how we are going to get the one that they put so much toilet paper on us.)

Well, the cooperative steals things a bit then, because what happens there? Because you lack time. The thing is that I have long seen what we do here in Spain. When we see the danger it has been a long time since I have seen the danger. Because honestly I think that this sector Pedro explains very well people are already 50, 60, 70 years old. At the moment they say that they no longer go to the field is the following year, sell the olive trees and if we sell all olive trees, the heritage of this province decreases by 30 or 40 percent. When the liability is greater than the asset, you are in bankruptcy and here we can go bankrupt in 10 15 years. I have already seen it. I saw it with the cows and I'm not going to see that for the olives too. At least I think that he who has knowledge has the responsibility to implement that measure. It does no longer depend on me, but at least my legal obligation is covered. I think that is the service we are giving here, because keep in mind that the whole town depends on us. Yes, the cooperative is doing well for the people. It is a very high responsibility. I keep the satisfaction of having tried, it will turn out better or worse, but at least we have tried.

(Treasurer: They were already starting to have enough, as you know. Good I'm going to ask if they can be living like this. Because if a man is ready, the power comes and asks him the stuff. They have been happy that I asked him about his field, the profitability and everything. And how? How does it feel to talk about this. I am also learning.)

And I'm a businessman for him. He has a lot of pastry shops in Madrid. I don't know if you happen to know that this man emigrated to Madrid, made his fortune, retired and has returned. They are his children, the trees are his children.

**One more question, do the trees here have irrigation?**

30 percent is irrigated and 70 is not, only by rain. The irrigation we have, they put at the farm. It is not like other communities of irrigators that give you irrigation with the heavy irrigation and they already determined the conditions. That is an important handicap, because here there is a lot of problems with more irrigation. There are irrigation problems in case and I say about exceeding volume. It is not fertile either, it is not watering that. In fact, the hectares of irrigated olive grove in giving with it its average production is 4500 kilos per hectare. The mean should be 6000 and there are some towns that are at 9500 kilos. I am seeing here how it improves. : they produced double or triple the hectare. By changing the model he made it clear that watering increases efficiency by 30 percent and watering underground one hundred percent efficiency is multiplying by 3, By 4.

**Siva: question about the platform oleosec -> information about parcels. They alse include information about intentions of the farmers: who wants to work on their own field, who want other people to work on their field and if this could be combined.**

For example, if I want to process the pruning wood of my partners, I want to know who wants to do it, who wants to give it and where your plots are. In this way I coordinate the jobs. If I, for example, want to know if a member wants rent your farm and another member wants to rent it out, Well, it also appears here.

**Siva: is this only for you members, or in general?**

Only for our members. Oleocampo also has this program. This information is necessary for us, to work more efficiently, to manage the plots better. But up to date, not a lot of parcels are in this project. Maybe when we receive more help from the junta de Andalusia and when the olive oil price will drop, we would have more clients for our project.

**Could you maybe share with us the amount of electricity and water is used here in the facility?**

Yes, apart from the olive pits we use for heating, which is 500 tonne of olivepits, I need to do a calculation. And energy, this is of January, about 12.000 kilobytes a day. In campaign, December, January and a part in February. So for us, the solar panels cannot solve our problem, because we only use a lot of energy on 3 months a year.

**Do you also know the use of water?**

Water in the process, we almost don’t add. 3.500 kubic meters per year. At the level of the company. And what the farmers use is the field, in total is 20.000 kubic meters, for treatments. And irrigation, they use 1500 kubic meters per hectare.

**And how is your relation with other cooperatives here?**

Very good, we are not associated with a cooperative like Oleocampo. But we have a good relation with other cooperatives here. We learn from each other.