

Entrevista a Cecilia Braun en el marco del proyecto “Infraestructura y transformaciones territoriales en el Paraguay (1960-2014)”, cofinanciado por el CONACYT y la FADA-UNA

JC: – Today, we will be talking with Cecilia about a project called CODE 24, a corridor of development between Rotterdam and Genoa. Cecilia thank you very much for having the time to speak with us.

CB: – Thank you. It’s a pleasure.

JC: – Cecilia, could you tell us some general information about the project we will talk about today?

CB: – Yes, I can. The project that I’m going to talk about is called CODE 24, which stands for corridor development; 24 is the corridor itself. It is a part of many different corridors along the interconnection of national transport corridors. The CODE 24 corridor is one of the prime corridors in Europe, reaching from the port of Rotterdam to the port of Genoa, that’s the main North-South link. The project was initiated in 2009 by various small partners that gathered and realized that this was a corridor of strategic importance and it needed to be a big cooperation among many actors involved in the corridor. It was originally founded and designed as a structure by the European Union, by the Commission for Transport and Development, but it always depends on which kind of actors get involved and create something out of these projects. There were many different partners involved, like the ports of Rotterdam and Genoa, various cities and regions running through, the transport and railway companies, and about 18 partners gathered and met continuously over the period of six years. It was an informal exchange at first, there was no initial funding, but there were various workshops and conferences conducted over the six years, in which, towards the end, they equally had resized on where the entire corridor was heading. One of the main goals was to find a strategic common agenda, a common strategy for the corridor, and that was reached towards the end in 2015. One of the great achievements of this project was the follow up of the EGTC, the European Grouping of Territorial Commission, which is another instrument of the European Commission. It’s another company that deals with territorial aspects that was founded up on the basis or the resize of the CODE 24 project, and it is now dealing more strategically with the various infrastructure projects that are necessary to keep this corridor functioning, to ensure the wellbeing around the corridor, to overlook the spatial effects it has, the infrastructure needs, and the bottlenecks that will need to be solved in the future.

JC: – Sounds good. Just to give us a broader sense, did the project at any point generate social debate? Is it a socially or politically-conflictive project?

CB: – Well, what you maybe need to understand—because it’s very different in South America, I guess—is that in the European Union they really need to achieve this transnational cooperation in the various projects in Europe in general. But this Trans-European Transport Network, the TEN-T, was introduced by the European Commission and it’s basically taking care of this implementation and the development of this Europe-wide networks of roads, railway lines, waterways, maritime-shipping rules, ports, airports and the connectivity of all the major hubs in Europe. There are nine core corridors, and this is a very political act, as a matter of fact. I mean, it involves a lot of debate as such, because it’s a transnational cooperation, and the most important impact of this is that, if these corridors don’t work, we have a collapse of traffic all over Europe. So, these corridors need to function, and for that there needs to be cooperation, and of course there needs to be participation, not just by the public that is now dealing with experts and with technical information about how this corridor is functioning from the transport point of view, but there have been interviews that were public, or conferences that were semi-public with experts of the corridor, there’s always been a huge deal with making this corridor in cooperation and to make what’s happening in the corridor publicly available which is also, of course, one of the needs and one of the requirements of any action by the European Union, so it’s definitely socially positive, and there were always discussions, but very positive indeed, because it’s a project of cooperation and that was the main core meaning.

JC: – I understand. Cecilia, could you tell us a little bit more about the territories that the project affects, the main cities or population centers? How can they expect to be affected or how were they affected?

CB: – Yes, I can. It’s from Rotterdam to Genoa; there are four [sic] bordering countries involved, which are The Netherlands, Germany, France, Switzerland through the Alps, through the tunnels of Switzerland, and Italy. These five countries are core countries of the project and this corridor itself was previously very much related to the rail traffic, of course also the car traffic and the highways—that are usually linked very close to it, or very much in the same area of it—but of course the main goal was the integration of the spatial planning and railway development. The railway development was on the one hand for freight, and on the other hand for passenger transport; but there was a focus, or an emphasis

put on the freight, because it is very vast and very dominant from the corridor of Rotterdam from the North, coming from Asia or all over the world, and then being trickled down in the south of Europe. Of course, there's also a Port in Genoa, but that port does not have the same size nor the same infrastructural strength as the port of Rotterdam and Antwerp and Hamburg. All the northern rail ports have a huge influence on the economic movement of goods in Europe.

These are the countries where the corridor is passing through and there were various parties that were joining the project. They were either asked, or through communications strategies became aware that this corridor project was being developed, and they wanted to become part of it. As I said, these were cities, regions, ports, industrial companies, railway companies and other planning bureaus that also supplied information on the transport flow of goods and what was happening on the corridor. One of the main goals was to find out where were the bottlenecks, where was the transnational cooperation working or not working, we were at the bottlenecks of the corridor that needed to be solved in order to guarantee that the corridor in the upcoming years is going to function as well as it was but even better, and then always taking under consideration the spatial effects, the urbanization topics, the environmental aspects, everything that comes along with creating a proper corridor development in one of the most important corridors in Europe.

JC: – I got it. Well, Cecilia, you already mentioned the European Union as one of the main actors driving the project; you also mentioned the formation of a transnational corporation. I was wondering if you could tell us a little bit more about that.

CB: – Well, the transnational corporation, as I said, is a part of this Trans-European Network of the European Commission. The European Union and the European Commission are commissioning this idea of creating this Trans-European Transport Network, because they are aware that we need to have an integration of all the nations, and that could be done through these vast Europe-wide networks of roads and railways and inland waterways. This corridor was of course very much also alongside this inland waterway—and I think this is also why maybe it could be interesting for your inland waterways in Paraguay. But the Rhine River itself is a long historic connection between Central-European countries towards the North Sea, but then also through the Alps. I mean, the Rhine is starting in the Alps, so of course there is a huge transition between the cities of Basel and Breisach where the Rhine becomes a river for navigation, and the goods are coming from North to South to be transhipped to what's rail, car, or truck traffic in the south of Europe. This access is a very crucial one, and from this access also there are a lot of connections to the other corridors within the European Union that are going from East to West, from North to South, diagonal from Hamburg to Athens, from Paris to Marseille, (there're various great graphics on that also on the web site of the European Commission), but the main idea is to create a social cohesion, and this social cohesion is very much building on these backbones of mobility traffic for transshipping goods from one place to another. That's the main goal of this Trans-European Transport Network.

JC: – Perfect. As you were saying about the relationship between these infrastructural armatures, these backbones and social cohesions within Europe, were there any actors resisting the project?

CB: – As far as I'm concerned, I don't know, because I only know the actors that were working alongside with us. There are so many initiatives happening in the European Union that sometimes it's not easy to keep an overview of what's going on, because they are also all financially supported, but not completely. There are always actors that are involved in the project that give a part of their own means to the project, it's a 50-50-percent deal of the cost of making such strategic projects, which is very much about consulting one another, in terms of the soft skills, and finding strategies, because there's not very much money invested in infrastructure. That was not in the idea when creating these networks, that there would immediately be money available for the investment of infrastructures. That could also be supported by the European Commission, but that was not part of this project. But then, again, it's very important that the actors that have an interest on the corridor to get together and see the situation, see that there is a bottleneck and to want to push the infrastructure in their area. It's the first time this happens, that there is a project where various actors of different countries and different types of actors are working on the same goal, which is creating a better and more integrated strength in the corridor. They can profit from the corridor to buy the goods that need to arrive in certain regions of economic development, by passenger traffic, that maybe needs to go faster or needs to be arranged in a more environmentally friendly way, because, of course, there are also actors on the corridor that were negatively affected—which are people—by the noise of the trains transporting goods, this network of trains going to the villages that were heavily affected by the night trains passing by. So, there also have been issues in parts of the project. People mentioning their problems and trying to find with other actors

the solution to these problems. So, of course there have been positively and negatively affected sectors on parts of the project, and they were also strategically involved, yes.

JC: – Following along those lines, what were in your opinion, the main positive results of this project so far and the main conflicts generated?

CB: – Well, mainly, there were a couple of very interesting highlights that came out of the project, one of them is that we also compared this corridor to other corridors in the United States—several corridors from East to West of the United States of America—, and also the passenger corridor in Japan—the high-speed rail; and what came out in the European network of corridors is that there is not so much emphasis put on the high-speed passenger traffic, but rather on the existing infrastructure and creating more capacity on the existing line, because we already have a very vast network of railroads, and that was one of the key findings. Also, another key finding, that was the origin of my PhD topic, was that there was not enough emphasis on this original CODE 24 project put on the England waterways, and what the roads of England waterways can be in the future in order to strengthen the corridor even further, and also to put less weight and to try to reduce the amount of traffic that is currently happening on the railroads and on the highways in order to combine it better with the trimodal system of the inland waterways; there was capacity along the inland waterways and in the ports which can be created or enhanced through more port development in a more modern and transformational way, so that the ports can become more productive and more goods could be transported by the inland waterways. That was also an important finding and the main reason why that was mentioned and why it was a basic part of my PhD topic, the integration between the spatial inland waterways, to find out the meaning of the ports along the Rhine river—from Rotterdam to Basel, to Switzerland—and the growth from an overview, at a large-scale level. What does it mean to all the various cities, to ports? Wherever you have a city, you have a port, or the other way around. There's always been port activities on the Rhine, and the ports are growing to a new organization in the area. How are the different sides being transformed into the urban development or water land? What does it mean, and how can this be scattered and visualized over in a corridor of that length, of that scale? Because this has not been done before. There has not been an overview of all the port activities and all the urban development plans along the Rhine river. What contribution can the waterways give towards the corridor to make it simply more trimodal? Trimodal is a key word in the European Union. It is the ability of having hinterlands, ports, where there's transshipment rail on the inland waterway and on the road.

JC: – What about any negative results, other than the noise that you've already mentioned? Do you have anything in mind?

CB: – Well, I was personally missing some of the big national railway companies, like the state-run railway companies that were maybe asked to join the project but then didn't, and it's very important to have them on board. It's very important to have all the key actors on board. So, it's not necessarily a negative thing because, first of all, you need to initiate a project of that size and start getting it somewhere and finding a common language, but it's important, I think, to put all the key actors on board. That was maybe missing in the beginning. But then, after the resize was represented, of course the national railways companies were also aware and wanted to get further into it. In this creation of a common strategy you really need to have all the possible actors on board, the actors that are related to the project and have an actual impact on the corridor. And apart from that—from the noise that caused environmental effects—there's the whole topic of the re-naturalization of the Rhine river, because it is a waterway (and I think you have the same in Paraguay), and in order to keep the territory around you need to have a certain width of the river. Of course, here we have a hundred years of tunnels passing by, and of course there have been negative effects on the Rhine's surrounds, on the nature around, there has been more noise coming up by various environmental companies. And how can this be taken care of in the project? I mean, there have been voices raised. It is also important to identify the priorities and see where the European Union wants to go.

JC: – Who do you think are the main beneficiaries of this project?

CB: – In the greatest sense I think it's the public of the European Union because everybody profits from the corridor that is running properly, because there's a flow of goods, there's economic activity, mobility. For instance, there are cities that have ports that are not necessary anymore, because they have lost importance along the corridor. They can be transformed, they have a possibility to have urban development along the waterway again. If you clean the waterway there's more attraction for people to live close to the water, because back in the days people would move away from the water because it was a dangerous zone, and nowadays, with all the waterfront development, there's a huge push, a

huge potential that has been happening in the biggest cities along the Rhine river like Basel, like Cologne, like Mannheim, like Rotterdam itself. I mean, the port of Rotterdam moved into the old shore, outside and into the actual North Sea, to create its transshipment and its development there, so the city can prosper inside and re- renovate itself, or re-develop, and this is of course a huge potential for the cities. If this has been looked at on the largest scale and then broken down to the regional scale, then to the local scale, you find that there is a potential for what we call inner development. There's outer development and inner development; the latter is the idea of developing the city within its borders and not creating further urban sprawl and expanding the cities into the open land, but since land is a scarce resource we need to find solutions that are not on the green land. This is important for both: for the development of ports, but also for the development of the adjacent cities. And this is, I think, one of the key messages that also came across in this project: that through international and cross-border cooperation, you can identify hotspots in the region, but also potential new areas of development. Because this is a growing corridor, the demand is very high. One of the key facts is that 70 million people are in the catchment area of the corridor, and there are 7 hundred million goods per year transported on the railroads, and (I don't have the exact figures right now) even many more goods are also transported in tons of containers on the inland waterway and can be shipped in this hinterland hubs that I mentioned. So, there's a huge pressure on this corridor, and this needs to be looked at on the greatest scale in connectivity with the other corridors and with the economic prosperities of the countries. I think this can give you an overview and a further appreciation of how this corridor can contribute to social cohesion along the European Union.

JC: – I see. I guess one of the topics you just mentioned is of extreme interest, the idea of the scale. You mentioned a catchment area, what would you say are the scales that in this project are designed or conceived? Because a corridor from Genoa to Rotterdam, in a way, has a global scale. Which would be the other scales that you can tell us about?

CB: – Well in my PhD I also looked at the European corridor scale, because it's very particular for Europe to look at these corridors from North to South, from East to West, that's the biggest scale I looked at. I also did my research on the global transshipment of goods, which means identifying where all these goods come from and where is the main hub and the trickling point for the goods. Of course, there's a huge demand from Asia, a transshipment of Asian goods to Europe and vice versa through and around Spain, and there's another canal coming from Africa and then going pass the Port of Genoa, around the peninsula of Spain and then trickling into the northern range. That's the biggest scale that I looked at. Then, I looked at the various regions that are working on this corridor together, because there are very prosperous economic regions in this European corridor. For instance, all the Netherlands region in connection to the German border; there's a huge economic activity in the Netherlands being transported. Basically, all the goods go from the main port into the hinterland, and there's a huge demand for these goods to be transhipped further, that they get out of the port into the hinterland as soon as possible, by a railway, by a highway and preferably in the future even more by the waterway, because, in the end, the goods try to find their ways as quick as possible in these economies of scales, no matter what means of transport they use. But there's the need and the idea of putting more emphasis on the inland waterway traffic. Then, the next big economic regional territory is the area around Cologne, Duisburg, Dusseldorf; these are big economic cities. This is the wood port area, as it is called, with all the big coal companies that used to be in Germany. So, there's still a huge economic activity and production taking place there, there's a bottleneck—there's two in a way, because you have people commuting to work, but at the same time you have traffic, you have containers running through these regions or there are huge traffic conflicts in this area, which need to be looked at also in relationship to what's happening in Rotterdam. Then, if you go further south, there's the city of Mannheim, that has a very important crucial port, too, and it's also one of the biggest train hubs in Germany. All the connections between North-South-East-West and various other corridors passing through Mannheim, so there's another bottleneck there that needs to be looked at in a detailed manner, but never alone on itself, always in connection to what's happening north of Mannheim, in the Cologne-Duisburg-Düsseldorf area, and also in relationship to Rotterdam. And then you go south, to the south of Mannheim, where there is also a case study I looked at: there's Basel, which is a trinational city that is directly bordering France and Germany, and you have many agglomerations of ports there, but then again you have the main ports—which are the Swiss ports in Basel—that are in a very small-scale area of passing trains on a local level to develop, but then again it's surrounded by urbanization so they need to really become very innovative and inventive on how to manage this demand of space to re-develop their port so that it can be competitive for the future, and this case is a very interesting one because also Basel is the beginning or end of the Rhine river navigation so there's a huge demand to tranship the goods from Basel onto the railway or onto the highway. But there's a rule in Switzerland; it's a law that says that all

the goods that are going through the country in the south, to Italy, cannot be transhipped on the highway, they need to be transhipped on the railway, that's why the Gotthard tunnel was built, the biggest tunnel in the world of 57 kilometers. So, the goods are immediately put on the train and just pass the country with the least negative effects through the tunnels in the south towards Italy, towards Milano, towards Genoa. Of course, there are also goods coming from the south to the north but not much; in a way it's basically $\frac{2}{3}$ of the goods come from north to south and $\frac{1}{3}$ from south to north.

JC: – I see, so, if I got it right, in general you mentioned four scales. One is the global shipping networks, a second scale would be continental—the scale of the corridors themselves—then you have the scale of regions and then the scale of cities.

CB: – Exactly, the local scale, yes. I particularly looked at the European scale, regional scale, local scale. But of course, taking it to a bigger level, you look at the global transshipment of goods, that's kind of where I got my reasoning from, but in particular I looked at these three scales on the European network.

JC: – Ok, so the corridors will be just in the cities?

CB: – Exactly. That was for my PhD, and for this project the most relevant ones. Of course, you look at the biggest scale, but there is no real influence of this corridor now, at this stage, on the global environment.

JC: – Cecilia, one of the things we have seen in several projects is this kind of tension between the scales precisely. So, to give an example: the Itaipu hydroelectric dam, which is still until today the most efficient hydroelectric dam in the world, of course has a specific territorial location but either its size, nor its capacity nor its economic flow are designed in relation to the local scale. It's not even for Ciudad del Este, it's not even for Asunción, is more an engine for Sao Paulo, there is an industrial hub there, or for other big cities in Brazil. What would you say is the “dominant” scale in the design of the corridor?

CB: – The regional scale. Because this is also the idea of the European Union and the Commission: to strengthen the regional cooperation. Even though it is important that the nation states work together—and they are also the crucial members of the European Union—, but to create this social cohesion, the European Union is aiming for a territorial cohesion, because Europe is so different, there are so many different aspects, cultures, planning authorities and planning cultures coming together, there are not only differences in the nations, but also in the regional territories that have regional particularities. So, one of the biggest key players in this corridor were the regions, and of course the cities, too, but the regional authorities, because they have the kind of skill that they can look at, and it's big, but not as big as the whole corridor. Still a couple of regions make up the whole corridor. So, from this point of view the regional scale was very strong and very forthcoming in this project, very crucial.

JC: – In concrete, I would say in political terms or in terms of making this participation of the regions effective, how did that happen? Is there regional governance, is there an association of industries? Which were the actors on the regional level?

CB: – On the regional level, the actors were the regional authorities, who are of course once again represented by various cities; the cities are the members of the regional authorities, and the communal smaller authorities in the region. They have their interest, they give their needs and their wants to the regional authorities and those can be for instance covering the region of Mannheim and Frankfurt, now the main lead part of the corridor. They took the lead, they organized various conferences and gathered all the actors together and that was the regional authority of Rhein-Neckar which is also the regional for around Mannheim, but also, they were working very closely with the region of Frankfurt, and not just the city of Frankfurt, but the bigger region. So, within these regions you have various actors. Of course, you also have the Chamber of Commerce of the biggest companies in the region, they all have their needs and their wants, conflicts or prosperities with the corridor and these regional actors were giving their voice, basically. Also, now the EGTC that I told you about—the follow up of this project, the European Grouping of Territorial Cooperation—that is a new key institution pushing forward the priorities and the goals that this corridor has designed as a common strategy, is a new company that is basically run by a regional authority or by the staff of the regional authorities, but it is a separate company now, and is also located in Mannheim. They are looking now for more strategic actors, not necessarily the same ones that were in the CODE 24 project, but also new ones, new parts, new regional authorities that became aware of the project and realized that all of them want to be part of it, they want to push further infrastructure projects in their area and get more European funding from it. So, this EGTC is more operative now. Before, there were various actors that had their own interests

brought into the corridor, and now you have one institution that is with the backup of the resizes that were made in this project, they are now pushing it more in detail for new projects that can be funded by the European Union on a certain specific topic of integration, of multi-modality, of environmental development in a certain area where it was really, really necessary, so there are more operative, manageable tasks now. This is the EGTC, which is also very much closely related or funded by a regional authority, I mean funded by all the actors on the corridor, but it's managed by a regional authority.

JC: – Regarding the funding of the projects, you mentioned a composition of funding by the fund of the European Union and another part from other actors. Do these regional actors or the national actors also contribute to the project?

CB: – Yes all of them, all the 18 actors that were on the project—you can look up on the website who the actors were. Whatever project was happening, they had to contribute 50 percent of their own means. For instance, we had conferences once a year that were hosted in different cities or regions or different courts, but everybody, for whatever initiative, there was a clear budget made, they were creating as a part of this large-scale project, they had to always point out what they wanted to do, and how they wanted to organize it—simply a meeting, or conference, or workshops, whatever. So everybody had ideas, and there were different work packages: infrastructural, logistical, spatial, communication work-package dealing with communicating to the public what we were doing. In these packages, everybody had access to the various actions of what they were actually working on, could be a workshop, could be a conference, could be an exhibition, could be whatever soft product they were creating; they also have a corridor information system, which is a platform where all the information of the whole corridor was gathered, like all the hub facts of the transshipment of goods and various ports, various projects that are going on, the bottlenecks, what are they about. Basically, a web page system that was based on ESRI, that I was dealing with and that was created by our university, re-created by the ETH. And we created this corridor information system where all the parts could get access to and contribute information that they have from the regions or their companies or whatever and it was available for extract. So, it was a platform of exchange, and these actions, they always have funding. Basically, you bring up a budget to create an action, to create a product or whatever it is, and then half of it is reimbursed by the European Union.

JC: – Just to clarify, these actions you mentioned occur at a project or planning level? Or does it also refer to a literal execution of infrastructure projects on the field?

CB: – No, these actions that I said were on a planning and consulting level, but of course they contribute to the political debate that is done on the regional or local level, or if it's a state project, if it's really of state-importance. So, it can push certain infrastructures faster, set priorities and help create awareness that if we do not work on this bottleneck we have a major problem in the next coming years so let's get things rolling. The planning procedures in Europe are very long-lasting and not autocratic at all, they are very democratically run, so there's no one person saying "ok, we're going to build a bridge here". It takes time, you know, and this needs to be well out-laid and organized in the previous stage. This is also one of the contributions of this project: to set priorities, identify hotspots, identify crucial areas that need to be looked up in deep from a planning point of view and then offer solutions through various instruments, like the cast-planning procedure: that's a procedure. You are an architect and I am a planner, but in architecture you have these competitions where people get an assignment and they simply design the best they can, and one is chosen. The test-planning procedure is the opposite: there are various planning bureaus that are designing the whole spatial area and identifying what could be done there and what other solutions there are to solve the spatial area, and then one planning team wins this assignment, but there would be an integrated solution that would be based on all the solutions that were presented to a board of members and of experts. This will be the best solution found, taken into consideration all the products in the test-planning procedure, which can last over 3 months. But then you get a better foundation for the actual infrastructure plan or urbanization plan that is going to be developed. It is a pre-stage, a pre-planning process.

JC: – I see. Cecilia, would you say that this idea of combining funds from European Union and national level also applies to the construction projects themselves?

CB: – I'm not aware, it's a good question. I think so, but I think you should look it up in the website of the European Commission. I don't want to give a false comment on this, because of course there are various funds at the European level that you can apply for, and of course also for very crucial areas of European importance, they will always be in contribution, because it will never be a funding only on the

European level, it's usually a shared funding. I am not talking about the soft level, it is all about mechanisms of consulting, of designing planning procedures, all the pre-planning stage is vital to push forward middle infrastructure projects.

JC: – One more question about the corridor itself. I am aware for instance that the trans Alpine tunnel is operative and working now. Are there any other projects that have been detected or planned within Code 24 that have already been built?

CB: – Yes, of course planning in Europe takes a long time, but there have been a couple of projects finished within the project, like the tunnel for instance, which was not part of the project. Code 24 was launched in 2009, the planning of the Gotthard tunnel was 30 years ago but of course it was completed during the project and there have been also effects on the corridor, on the improvement of the corridor. In Offenburg, which is a small city, a smaller city in the south of Mannheim, they have finally agreed to build a pass way just for separating the traffic, the freight traffic and the passenger traffic, so in the future there will be no traffic going through the city but passing around. I mean, we're talking about separating the tracks for freight and the tracks for passengers, because right now in Europe, and specially in Germany, we have a system which is of mix use, which creates of course more tensions and at the same time there is less infrastructure needed, but it needs a better organization of how traffic and passengers can be picked up along the corridor. You still have a good passenger connection between the cities at night but maybe not too many tracks. Containers go at night because you have noise pollution that causes a lot of effects, but in Germany there is mix use on the train tracks and there have been projects started (I mean not started and finished, I think; or maybe they finished) that already started before and where finished during the project. For instance, another very crucial project that was also finished before, it was for the project but had a huge effect on the corridor is that from Rotterdam to the border of Germany, you have a sole train route that is called the "Betuwe line" (you can look it up on the internet). It was primarily built by the state of the Netherlands and the port of Rotterdam in order to transit the goods, the containers, immediately from the port onto the rail to the border of Germany and now there are conflicts on how the entrance should continue on the corridor to the south, because in Germany you don't have one train track that is only designated for freight routes, for freight traffic, to go from the border of Germany to the south, where you have it again in Basel where there is a train now going directly to Italy and is still sharing the same tracks with the passenger traffic, but is of course a very important train route. But as I said in the Netherlands you have a train route just for freight and is not being used by the local trains for passengers. That's strategic, that's very important. It can help you design a better flow of goods. Of course, in Germany that is not yet the case, because the train routes are been shared, so it's a matter of how you operate. Then, the interconnection points are very important. This is also what the project tried to contribute, I cannot give you now all the details of which projects have been finished and which are still in completion, but there have been other projects being designed and planned but then with our consultations among the regions and looking at them in a deeper way they have been altered, there have been more focus points on it, or they have been even dropped, even some projects that were just not finished.

Since we, as an informing planning authority, were able to look at it again and in the current circumstance we can also put more emphasis on other projects maybe and drop other ones, I mean, not drop it as an institution but move the debate to another priority.

JC: – Cecilia, if you must summarize, what would the biggest positive lesson of this project be for you?

CB: – To summarize, it is a great initiative to act, to put together all the stakeholders and making sure that, in the particular case of the European Union, it's important to talk to each other, sit around and find a way to communicate on the same interest and the same goals, defining the same goals. We had a huge disorganization and chaos in Europe concerning the flow of goods, traffic, passengers, people and urbanization always with limited resources, and we cannot just have urban sprawl everywhere, we need to find and create densification but under the premises of quality not densification like we see in Asia, looking at in a clever and innovative way and that means: communication, commitment, responsibility, funding and of course the supranational institutions that oversee this. This is something very remarkable about the European Union that there is a bigger institute trying not to regulate but to set goals, push the regions, the cities, the local actors to become active themselves, so that the greater goal can be achieved: to create social cohesion.

JC: – Perfect. Finally, Cecilia, to conclude. Do you have any idea of how Code 24 could be connected or linked to the challenges such as the ones we are facing in Paraguay or South America at the present moment?

CB: – Well, I looked at the map of Paraguay and I tried to look at the various regions you told me, I'm of course not too familiar about this yet, but in South America there are a lot of inland waterways that can be potentially very interesting for the future, to look for a better transshipment of goods and the integration for the urban development along the river, under the conditions to make it environmentally friendly and livable for people. In Paraguay I was surprised to see that you have a direct connection to Buenos Aires, I didn't know. But I don't know actually how many containers and what the actual flow of goods is there, and at the same time what are the conflicts with urbanization along the rivers. Is there any urbanization? Is there any re-naturalization going on along the rivers? Is the river made in such way that the containers, the big ships are deep enough to pass through? Is there actually a real corridor already existing, yes or no? I mean, these are aspects I don't know yet to be telling you to what extent there can be an operationalization of the resize in your area. But apart from that, something very important is that regions like the ones you pointed out, like the energy hub for Sao Paulo, is a nation act to make it happen there and it has environmental effects in the area and it needs compensation, I think, for what is happening there. But it always depends on what is the connectivity between the various regions, cities, countries along any corridor. Is there economic power? Is there potential? That's something that you have to look at and learn from other corridors in the European Union, that potential is already a huge demand. If you see that this corridor can be of bigger importance, then it is very necessary to put these actors all together, identify them and give them a common understanding of the importance of this corridor and bring them all together on one table and from there you can look further and create a common voice. This was a big deal for the project and this was not happening before, it didn't exist before: to work on such a scale together and realize that we are all linked to the same backbone. That is what I do not know about Paraguay, what is the backbone of Paraguay? I guess is the highway mainly?

JC: – And the rivers.

CB: – Maybe interactions between roads and water, no? Did I see that correctly?

JC: – Yes, historically the rivers were the backbone. Then, there was a period of trains and I would say mostly the freight is in highways at this moment and there is a weak development of this multimodal network that you are talking about.

CB: – Exactly, and the train network I guess that is the one that has been forgotten, right? So maybe in your country, that could be the most sustainable and economic mode of transport: the rail. In the future is possible that we will have boats completely not run by coal or by petrol anymore. That's also another topic in the European Union: in the next 20 or 30 years this is going to be the case, just like we are all going to have cars that are going to be electrically driven. So, under these premises it is very interesting to look as a plan to have in the future and see where this corridors and waterways in Paraguay can contribute to a better integration of urbanization. Also, in the country alongside these modal hubs. In Europe we always look at these hubs, you know, we look at connecting the hubs together and not just for the goods, but also for the people. Now in Europe the best place to live is next to a train station, it is the highest value of land. All the train stations are being rebuilt and everywhere you have a huge urbanization along the train stations because people want to live there, work there and there is a huge pressure on the nodes, and maybe that is going to happen in Paraguay, too. If you see that coming it will be very interesting to learn from CODE 24 and talk to the main organizer of Code 24 (this is possible because it is a public project) which is now the EGTC in Mannheim because they took over the follow up. They can visit you, they can view insights on how this project can be developed and what you need to do, which steps need to be taken. And also, in ETH, in our institute we work on projects of that complexity, mainly in Europe... but in Greece for instance. Greece used to have a great train network and now, over the past 30 years, they were focusing only on highways. But there is so much congestion, it just does not work with all the goods, so now they're reactivating their train network. I think there is so much help out there, that you can easily find institutions that will be happy to support your institute, your university, and giving you the right means in order to create awareness and get the actors on board.

JC: – Thank you very much, Cecilia. We went through many aspects today in the interview. We talked about the CODE 24 project linking Genoa and Rotterdam with discussions about scales of planning of infrastructures as means of building social cohesion; we talked about funding mechanisms for planning a project such as CODE 24; we discussed about hotspots for growth, but also about bottlenecks that can be improved. And I think one of the most interesting aspects perhaps of this conversation we had is that we talked about mechanisms of participation to design and plan at a continental scale, which is something very interesting.

I particularly liked a concept you gave, which is this idea of a supranational network not to regulate but to articulate key actors in developing a vision for a region, or for many regions actually. So, this has been extremely helpful, and I have to say thank you very much Cecilia for taking the time to talk to us, and I hope we can be in touch soon for further collaboration within the project.

CB: – Yes, I just have one more thing. First, what you just said is true, not to regulate but to articulate key actors. Maybe what I did not mention was that is really important to note this was a completely bottom-up project, it was not a top-down project at all. Even though the European Union is a top institution, but it just tries to empower the regions and the cities, and I think this is what you need also in South America, because I think there is so much competition between the countries and regions. I heard in the news that Bolivia wants to get to the sea, so they are trying to look for canals, they are trying to break through with a connection to the waterway out to the open sea. So, it seems like everyone is looking for connectivity to the big economic playground, which is the open sea out there. I think what you also need to look is inside, just like Paraguay that is not directly connected to the sea, but then again with rivers it is, and it needs to create an awareness for it. I think people don't know. So, this is also one of the key things.

JC: – Thank you, Cecilia. Thank you very much. Have a good day.