

## The innovation project in the context of agglomeration franco-valdo-genevèse: case of gold rectangle

### A - Organizational and territorial planning problems: stakes of town planning



map1: DAEL, canton of Geneva

#### ***A-1 A transborder agglomeration***

In 1997, the planning Charter of the transborder agglomeration franco-valdo-Genevèse established by the Franco Genevèse regional Committee (CRFG), identified space surrounding the airport of Geneva like a major pole of economic development. It was followed in this by the cantonal Master plan of Geneva (approved by the Great Council (Geneva) on November 21, 2002, by the Confederation in March 14 2003) and by the directing master plan of the Country of Gex.

In 1999, the influence of the project was widened with a more important perimeter, in order to integrate the CERN, the vicinity of the sector of the international Organizations and the general topography of the landscape of the Jura's foot.

With present step aiming the project implementation, the perimeter retained is the territory of the eight communes French and Swiss directly concerned (see map 2)

To be transborder, the franco-valdo-genevèse agglomeration functions like any current agglomeration, with a strong concentration of employment in the center and a dispersion of the habitat always wider. The canton of Geneva shelters 75% of employment and places and

57% of population of the basin. However the population increases more quickly in crowns than in center: these ten last years + 13% in the Country of Gex against + 6.7% in the canton of Geneva. Consequently, the problems of transport are always acuter, with the traditional congestions in peak hours of the morning and evening on the penetrating road of the agglomeration.

### ***A-2 A concentration of international assets***

Pole "Geneva - Country of Gex" or the gold rectangle is the area, in the agglomeration franco-valdo-genevèse, which concentrates the most international assets.

The baptized sector "gold rectangle" shelter, with proximity of a node of air transports, motorway and railway, one together dense of markets of exposure, rooms of congress and spectacles, seats of multinationals and offices of international companies.

The central equipment of the gold Rectangle is the international airport of Geneva, which generates 24' 000 employments direct and induced. With an average size (nearly 8 million passengers in 2000), serving a basin of 6 million inhabitants in a radius of 120 minutes, this airport develops the rare asset of a situation to 5 km of the downtown area. A strategy very reactive, regular investments and an exemplary attitude with respect to the environment enable him advantageously to face the risks of a difficult economic situation.

The European Center of nuclear research (CERN) is one of world poles of fundamental research on the structure of the atom. It is established on several sites, most important being located on the commune of Meyrin in the canton of Geneva, the others being dispersed in the Country of Gex, on the layout of a ring of scientific experiments in basement.

The 9' 500 employees of the CERN and its scientific visitors are many to reside in the Country of Gex.

The site of the international Organizations does not make part of the pole "gold rectangle", but it is a large neighbor who can contribute strongly to its development. Reflexions are engaged today on creation, in the Country of Gex, of a center of formation for collaborators of the nongovernmental Organizations. Since 2002, a Plan of coordinated installation (CAP) baptized "Garden of the Nations" governs the last land opportunities while aiming to reinforce its character of urban park.

Governmental and non governmental international organizations in Geneva employ 25'000 people and accommodate many visitors; including a great part lies in the Country of Gex and the District of Nyon.

### ***A-3 A transborder area facing some constraints***

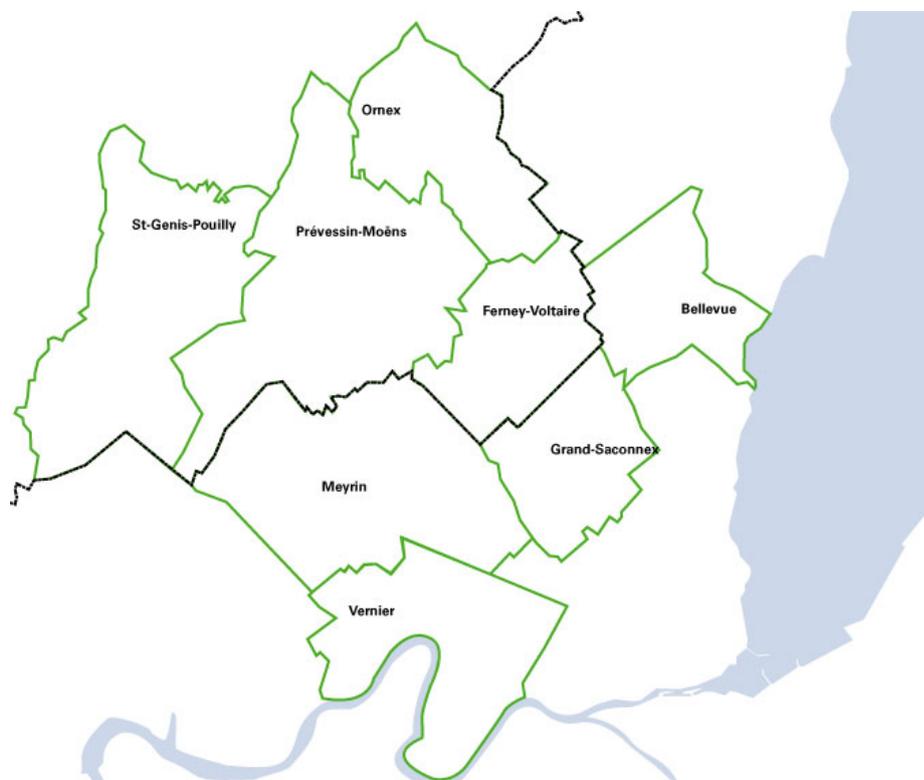
#### ***A-3-1 A contrasted territory:***

On the pole "of gold rectangle", the occupation of the territory is very contrasted, with very dense Swiss side, very sparse constructions side France. It contrast striking, to 5 km of the downtown area of Geneva, is due to the double obstacle national border and of the 4 kilometers airport's track, which has functioned like a roadblock contained the "normal" expansion of the agglomeration. In Swiss side, constructions are massed along the airport in a "incorporating gold Rectangle" motorway, railway, car parks and constructions in a very tight fabric.

In France side, on the territorial trapezoid placed safe from this protection, the human occupation is limited to a periurbanisation of low density, punctuated by the old cores village and alternating with full surfaces arable lands and forests.

This anomaly in the development "in spot" of the agglomeration, bequeaths the exceptional heritage of an urban perished space of low density located at 5 km of downtown area and in the heart of a high level international development pole.

So to reconcile the objectives of development of the pole "gold rectangle" and the safeguarding of space and environmental qualities of the territory, authorities of the Canton of Geneva and the Country of Gex decided to work together and to implement a transborder territorial project, treating like one together unified the four gessian communes and the four genevèse communes concerned.



Map 2: DAEL, Geneva canton

An exposed territory.

When they are subjected to strong pressures, all road block fall down. With the present stage of the agglomeration's growth, there is no chance that border and the airport will protected a long time any more the French territory of the urban development. The trend exhaustion of the land reserves of Geneva makes increasingly more interesting vast open spaces of the Country of Gex, definitely less expensive than in Switzerland. For the companies, if conditions (tax, social, regulatory, etc.) remain gravitational in Geneva, Country of Gex offers the attraction of localization in Europe. And for housing, the attraction of opportunities in France side carries it more and more on handicaps of the border and the distance in the center of the agglomeration.

Levels of price of land are very different in France and Switzerland. The variation was 1 to 4 in 1990 (transborder Data network, April 2001) and would rather tend to be usually accentuated (from 1 to 5 for grounds residential or industrialists in 2002).

However scenario of an uncontrolled urbanization, which would overflow freely the airport's road block, would lead to a double catastrophe.

#### Side France

Seen like a ground to be built, the periurban territory Country of Gex would lose its landscape qualities to become banal residential suburbs, without guarantee to reduce its current handicaps:

An "economy of periphery" "to the resources limited by the lack of employment, weak level of services and equipment, strong dependence in the center of agglomeration, of the endemic problems of transport, etc.

#### Side Switzerland

To leave make a "boom" real in France side would have, for Geneva, three impacts low registers. On the one hand, reinforcement of the concentration of employment in Geneva and the residential swarming in close France would cause to worsen the problems of transport of the agglomeration. In addition, an uncontrolled development would make run the risk of irreversible impacts on the environment and on farming network of the agglomeration. Lastly, Geneva would have very to lose if it lets to develop in its periphery an anarchistic urbanization of poor quality, which the international vocation of this territory would serve.

A long time protected by the road block from the airport and the border, the pole of gold rectangle is exposed today to the scenario-catastrophe of an urbanization uncontrolled, which would destroy current qualities of the territory and would worsen local problems of agglomeration.

#### **B - Stakes of transborder co-operation and project definition: To reconcile territory and development**

To avoid an uncontrolled urbanization in order to preserve current qualities of territory; to channel the development so that it does not worsen the handicaps current of the territory of the pole "gold rectangle", to reinforce its economy and to solve its difficulties: these common objectives have urge authorities of the Canton of Geneva and those of the Country of Gex to cooperate.

The finality consists in working on one territorial project transborder who reconciles area and development. Selected perimeter is the eight communes directly concerned with Gold rectangle, the CERN and Technoparc de Saint-Genis-Pouilly.

#### Side Switzerland

Four Genevèse communes of Vernier, Meyrin, Grand-Saconnex and Bellevue, largely urbanized, add up a population of 59' 000 inhabitants. Thanks to the presence of the CERN, industrial parks and gold Rectangle, they shelter 41' 000 employments which ensure a favorable ratio of 0.7 employments for 1 inhabitant. The average density is 22 inhabitants to the hectare, which is superior with the average of the canton of Geneva (17 hab/ha).

#### Side France

Four communities French of Saint-Genis-Pouilly, Prévessin-Moëns, Ornex and Ferney-Voltaire count together 21' 000 inhabitants and 6' 100 employment - is a ratio of 0.3 employments for 1 inhabitant, corresponding to one initially residential vocation. They concentrate more than one third of population of the Country of Gex (26 communes, 62' 000 inhabitants) and the essential of its employment. The average density is 7 inhabitants to the hectare, which is definitely weaker than the Swiss part, but remains higher than the general average transborder agglomeration (4 hab/ha).

On the whole, transborder territory counts 80' 000 inhabitants and 47' 300 employment distributed on 5' 900 ha (for a density of 14 habitants/ha). It is the size of an average city, comparable with agglomerations of Bourg-en- Bresse or Annecy in France, Bienne or Freiburg in Switzerland.

#### **B-1 a territory which cannot wait any more. Overcome the handicap of the border**

In an urban basin not crossed by a national border, this type of project in periphery would be dealt with by authorities of agglomeration, in collaboration with the communes concerned. The importance of the stake would justify that the agglomeration engages average the technical and financial means necessary to success of the operation, means whose importance exceeds of course the capacity of peripherals' communes concerned.

This type of interdependent operation, mobilizing institutionally the agglomeration and the communities, is excluded for the territorial project of the pole of "gold rectangle ". If Geneva is a transborder agglomeration in fact, it is not probable that constitutes itself quickly the corresponding institution. It is one of the effects of the border and the multiple problems of

sovereignty, of disparities tax, legal, technical, administrative and cultural which are opposed to an unified territorial piloting.

### ***B –2 A project in two steps***

First step territorial project “gold rectangle”, determines one common strategy of the authorities Genevèse and gessian in favor of a durable transborder development.

The second step will relate to the implementation of this territorial project. It will be in particular the occasion to test a new type of transborder planning, coordinating two documents with the procedures quite different on each side from border:

Swiss side, a master plan of district will be elaborate for the sector of the gold Rectangle: complements of equipment, improvement of transport, the landscape, the image of the sector, etc.

Side France, a master plan of sector will be developed in the framework of the master plan of territorial coherence (SCOT) of the Community of communes Country of Gex, from which the study comes to be launched.

Lastly, the strategic options have to be gradually integrated in planning of higher level (in particular project of agglomeration) and of lower level, with in particular:

Side Switzerland, the revision of the communal master plan, envisaged by a law recent

Side France, development of the local Plans of town planning, including three communes have just launched the study.

### ***B-3 four strategic options***

The project territorial transborder “gold rectangle” fix four strategic options.

#### ***B-3-1 Option 1: to improve balance between population and employment, loads and resources***

There is not an incompatibility between the economic objective of development of the pole “gold rectangle”, wanted by the whole of the agglomeration, and the project territorial aiming to preserve the current characters of the territory.

A development of activities is necessary to reinforce economy of the territory which, like any urban periphery, suffers from chronic problems of financial capacities, under-equipment in services, of dependence to the downtown area and transport. In particular, a policy firm of safeguarding of the agricultural character and natural spaces of territory requires means.

Economic development must contribute to rebalance the relationship between population and employment.

Side Switzerland, the ratio of 0.7 employments per inhabitant is favorable: situation only must be consolidated, in particular by equipment complementary increasing the total performance of the gold Rectangle (structures of reception, centers congress, eases of transport and communication, etc.

Side France, the ratio of 0.3 employment per inhabitant is insufficient to ensure the resources necessary to the life of a “city” of 21' 000 inhabitants in full growth (+13% in 10 years in the Country of Gex and in the 4 communes considered) and to raise the level of the public and private services. To reinforce financial capacity of the communes and to ensure a basin of customers sufficient for an animation of urban level, it needs an economic project supporting the establishment of companies, which will generate employment clearly more and of quality.

#### ***B-3-2 Option 2: to preserve and reinforce the territorial assets***

Character green of the territory, with its dense alternative Swiss side, not very dense side France, is the master trump of transborder space considered. In conformity with the wishes of the population and the requirement of an international pole of quality, it must be preserved and reinforced.

Side Switzerland in particular, it must inspire installation “strong point” of the gold Rectangle, which calls functional improvements and landscape. And the network of the parks envisaged in the cantonal master line must be implemented under the specific conditions on the “Lac

side" of the airport, marked by the cohabitation of great infrastructures and sectors differentiated from habitat where structured vegetation prevails.

Side France, the vast agricultural and natural intervals which separate the built sectors must be preserved. For this purpose, several measures are envisaged:

- Creation of a East-West Park of 650 hectares of protected forests in Saint-Genis-Pouilly and Ferney-Voltaire, reconciling the requirements of and discrete presence nature conservancy of activities of reception and leisure, ensuring the resources necessary to the land control and the maintenance of the park. Beyond the words, name "Park" will be accompanied by payments having for priority function to ensure the protection and the perenniality of its natural inheritance.
- Maintenance of an extensive agriculture not reducing to a role of "gardener of the landscape", but continuing to live its traditional productions (mixed-farming and breeding) on a mode which is already largely transborder (france zone), in order to control its reconversion with more profitable cultures (in particular greenhouses) and to preserve basic characteristics of the landscape.
- Nature conservancy, in particular by the management of water surface, the safeguarding of the forests and the biological corridors, thus that by the requirement of a "label environment" for installations and the constructions.
- A plan landscape.

### ***B-3-3 Option 3: to control the extension of constructions***

Territory considered is not a vast ground to be built. To preserve its character green and spaced, five complementary policies will be led:

- To stabilize the residential one of low density: the districts of villas have favor of the public (like showed it several referendums in Geneva), answer at the request of international customers and form stopping with urban thickening; they will continue to play an essential part in the image territory, but must from now be limited in their extension.
- To reinforce existing built cores so that they "make stock" and improve the level of services offered on the spot (less dependence to downtown area): it is a question of applying to future constructions the watchword of a compact urbanization, by packing the poles gradually traditional and new by relatively dense constructions (houses of city or small buildings)
- To urbanize on the two sides of the border: the development does not have to be carried out only side France, but to be distributed on the two sides of border, by densifying the sites which can be to Suisse side (urban renewal, in accordance with the cantonal master line)
- To limit the development of new activities to the three operational sectors Gold rectangle: the current site side Lake of the airport (which continues sound development), the site side of Jura (where a co-education between activities and habitat is envisaged) and the site side of CERN.
- To impose a quality control mark of constructions, on the level of their town planning (establishment, landscape, environmental impacts) and of their architecture, in accordance with the awaited standard of an international pole.

An estimation of the influences of constructions corresponding to the development economic wished shows that these strategic options do not have anything unrealistic person and are realizable, with the help of a solved and coordinated public action in two sides of the border.

### ***B-3-4 Option 4: to develop a multimode approach of transport***

The offer of transport calls a multimode management.

Effort must be related to the network of transport individual: it is necessary to ensure a service road of the avoiding territory residential districts, roads being arranged in "parkways" (with cycle track and pedestrian way).

Effort in the main thing must go to the development of a substantial offer of transport public, combined with the creation of parks relay P+R and various measurements traditional of accompaniment (community tariff, subscriptions preferential, policy of the parking, etc.), in order to allow to a great number of people to leave their car and borrow public transport.

### **C- Gold rectangle: an economic project linked to the territorial project**

The implementation of the territorial project calls the creation of sustainable resources. The reception of high level employment, the creation of a Park East-West and its maintenance, the maintenance of agriculture, the requirement a top level of quality of town planning and constructions, safeguarding and management of the landscape, strategy of transport...: none of these options is good market!

This high level standard is justified amply:

Failing this, it would be necessary to be resigned to see current green space replaced by a poor urbanization, without guarantee that they improve finance public, current level problems of services, installation and of transport.

A high environmental standard is essential for the pole "gold rectangle" with international vocation, called to play a part of window and of drive for the franco-valdo-genevise agglomeration.

Creating resources necessary to concretize the territorial project, the project of development will have in its turn to obey, within its limits, in the conditions of safeguarding, even of restoration, the environment and the landscape.

#### ***C-1 an adequate and necessary critical mass***

Authorities of the Canton of Geneva and the Country of Gex aim on the project economic "gold rectangle", the development from 55 to 75 ha of floors activities and residences to be built in 20 years on three operational sites:

In site lake side: 16 to 20 ha of floors on 20 ha of grounds

In site Jura side: 30 to 42 ha of floors on 125 ha of grounds

In site side CERN: 10 to 12 ha of floors on 25 ha of grounds.

The economic project "gold rectangle" is in conformity with the strategic options of territorial project. In particular, impact of the construction of residences on the territory remains very measured, conforms to the idea of a soft transition towards a durable development.

Analysis economy of the Rectangle project of gold resulted in envisaging over 20 years it development of 55 to 75 hectares of floors \* new activities and residences.

This order of magnitude, established for the general calibration of the project, is comparable with the constructions existing in the current gold Rectangle Swiss side (approximately 55 to 60 ha of floors).

Economic project of the gold Rectangle is necessary: it is necessary new resources to concretize the territorial project.

Two general approaches make it possible to check that the importance of the development economic is compatible with the strategic options of the territorial project. The first deals with the territorial influence of constructions.

The project provides that constructions will be carried out gradually over one 20 years period. Its rhythm corresponds to the idea of transition wanted by the territorial project transborder. It leaves time for progressive adaptations of infrastructures, of the roadway systems, the equipment, the habitat, the services, etc.

New constructions envisaged by the gold Rectangle project will consume 170 ha of grounds, that is to say 3% of the territory transborder of the eight communes considered. This extension of the frame, spread out over 20 years, is modest compared to the influences of existing constructions.

170 ha of direct influence of constructions of the gold Rectangle will remain very measured compared to the 650 ha of the East-West Park, that the territorial project commit creating between Saint-Genis-Pouilly and Ferney-Voltaire, and with the 4' 000 ha open and wooded parks to preserve. It is to say that, even in 20 years, green surfaces (arable lands, forests, residential of weak density) will remain very largely dominant, in accordance with the principle of urban countryside.

Density of constructions will remain average on the three sectors of the gold Rectangle. The site in Switzerland side will be well sure definitely denser, new constructions fitting in a

context already largely built. Side France, two sites of the Country of Gex districts of activities ventilated of the type "campuses", in conformity will accommodate with "the spirit of garden" of the territory, with open-building methods in green landscapes, as well as low buildings of housing or houses of city reinforcing the existing built cores.

Installation will be studied within the framework of operational sectors.

Gold rectangle project envisages the creation of 12 or 15' 000 employment direct:

3' 500 or 4' 000 on the site side Lake

6' 500 or 8' 500 on the site Jura side

2' 000 or 2' 500 on the site side CERN.

If it adds induced employment, it arrives at the figure of 15' 000 to 18' 000 new employment.

In terms of habitat, that corresponds to a need for approximately 18' 000 new residences with the corresponding equipment, with to build in 20 years.

To locate this order of magnitude, let us recall that in 20 years, it was built approximately 40' 000 residences in the canton of Geneva and the double on transborder agglomeration.

On these 18' 000 residences, since well of other places of dwelling will attract the population in the transborder agglomeration (canton of Geneva, district of Nyon, Country of Gex, even beyond), it was allowed that approximately 8' 000 residences should find place in the territory of the eight communes.

5' 000 residences are envisaged by the gold Rectangle project, primarily on the site Jura side close to Ferney.

3' 000 residences are to be built on the remainder of the territory of the eight communes, in reinforcement of the existing built cores:

Half side France (houses of city or small real), half side Switzerland (denser buildings).

With densities envisaged by the strategic options, these 8' 000 residences and the corresponding equipment will consume less than 200 ha of ground, that is to say 3,2% territory considered:

Approximately 100 ha in the sites of the gold Rectangle, especially side France.

Less than 30 ha Swiss side (density higher than the average)

Approximately 60 ha side France (density lower than the average).

On 20 years, at the rate of 400 residences per annum, it will act of a growth very measured built surfaces, conforms to the project of a soft transition from it territory, allowing him to gain in autonomy compared to the center of the agglomeration while raising gradually the level of the services offered locally.

### ***C-2 Institutional stakes, legislative stakes and stakes of management and stakes of coordination, the instrument of piloting and coordination of the project: Local grouping of transborder co-operation (GLCT)***

Widening agreements of karlushe, which authorizes the creation of body of co-operation transborder with a legal personality, with the area Franco Genevèse allows the installation of a grouping of co-operation transborder (GLCT) instead of a mixed investment company.

Competences go from the basic studies until the achievements of equipment of grounds or of constructions, in partnership with private actors or for its personal use.

Public authorities are in a majority in the capital of this company and the expenses of a subsidy of starting cover the first two years.

For the implementation of the gold rectangle project, the absence of a structure of agglomeration, able to engage average the correspondent with the importance of the stake, creates complex problems, which the difficulties caused accentuate by the national border. Special means had to be imagined to make possible the process of development: to launch the starting dynamics, to find private partners and to associate them in starting project, to program the realization of infrastructures (to a total value of 500 million Euros), to attract likely companies and organizations to be interested, to concretize public programs (East-West Park, reception facilities, etc.), to carry out various constructions.

Engineering financing of the project must deal with two major challenges:

To identify or create the tools and institutions able to assume the risks economic and financial of the control of work.

To distribute the financing of the public participation in the investments between public bodies on both sides of the border.

## Conclusion

The transborder project of the gold rectangle is an example which illustrates the tendencies of contemporary town planning as regards territorial installation. Indeed, it is presented in the form of an innovating project in several levels.

- On the level of the transborder co-operation: a common will of all the public bodies of the two dimensions ones of the borders.
- On the level of the safeguarding of natural spaces and the improvement of the quality of life: a fundamental dimension is granted to the environmental protection ,the economic dynamism, the promotion of public transport and the construction of residences of quality.
- on the level of the assembly and the piloting of the project: this aspect of the project holds account local specificities related to the identity of each territory of different under territories concerned, associates the populations directly or indirectly concerned in the design of the strategic axes of the project.
- Finally on the level of implementation project: the structure of piloting and operational preparation (transborder grouping local of co-operation instead of a mixed investment company) which will be set up holds account the differences in culture of installation between the two countries, and will function by mutual agreement under the mode of the French right.

On the whole the gold rectangle falls under a step of project which gives him the possibility of reconciling the multiple divergent interests of this stakeholders and surmounting the legal obstacles, tax, lawful, financial induced by the presence of the border.

However even if the framework of the project makes it possible to discuss and regulate the difficulties by spirit of compromise, to define a concept of innovating installation, the implementation is far from being gained following slowness caused by the electoral renewals, the mistrust and the opposition of certain categories of populations, the length of the administrative procedures, and the difficulties of coordination and budgetary constraints.

In the whole cost estimated around 500 million euros, the project is currently in the phase of the last complementary studies which will end this autumn 2005 and if all occurs as envisaged the first blows of pickaxe will have to see at the end of 2007- beginning 2008.

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