

## Toulouse, France

### Toulouse Oncopole, France

Devastated by an industrial explosion in 2001, 220 hectares of an old industrial neighbourhood on the southern edge of Toulouse are benefitting from an ambitious regeneration plan. Unique in Europe, the Toulouse Oncopole brings together on a single site all stakeholders involved in cancer treatment: clinicians, public and private researchers and others. The neighbourhood community groups are members of the managing umbrella organisation. The project, although strongly developed through industrial and scientific governance, offered the Metropolitan Council a test bed for setting up local employment initiatives linked to health and care, in partnership with the Public Employment Services and training organisations. By 2014, around 4 000 persons will be working on the site, and half of them will be in newly-created jobs, mostly in the service sector (nursing, caring, catering, transport, etc.).

### TOULOUSE ONCOPOLE (France)

The Toulouse Oncopole project brings together the region's considerable expertise in cancer research and care to create a new facility which will bring life to the derelict site of an industrial disaster in 2001. Through the involvement of local people, care is being taken to ensure that as many jobs as possible go to residents of the neighbouring communities.

At the centre of the Oncopole is a public hospital for treating patients with cancer. Now decontaminated, the site already hosts several new buildings (two private laboratories, a service centre dedicated to biotechnologies, a hotel, etc.). These are the first in a series of amenities allowing Toulouse to diversify into the field of health and care. A city within the city, the development is generating new transport infrastructures and other neighbourhood services benefitting the entire population, such as cycle paths along the Garonne river, and a memory lane to honour the victims of AZF catastrophe in 2001.

With over €1 billion invested, the Oncopole is not only an ambitious scientific project, but a vast public health scheme and an integral part of the national plan to fight cancer. It also represents a major economic development initiative for the Metropolitan Council within an extensive urban planning programme to rebuild the southern part of Toulouse.

The mission of the Oncopole is to pool resources for common projects, to encourage synergies between different fields and technologies, to nurture partnerships between public and private research, and to encourage transfers and exchanges between fundamental research and patient care, thereby driving therapeutic innovation and improving the quality of treatment. It has been conceived in an integrated way, as a huge science park with additional public amenities for recreation (riverside park with cycle paths), health (hospital) and services (hotel, parking, restaurant) with extended public transport links to the city centre.

By 2014, around 4 000 people will be working in the science park, of whom half will be working in newly-created jobs, mostly in the service sector (nursing, caring, catering, transport, etc.).

Many stakeholders are receiving ERDF support for their part this major regeneration plan, but this case study examines two projects: the Cancer Research Centre of Toulouse (CRCT) with ERDF support of €10 900 000 going to the National Institute for Health and Medical Research (INSERM), and the 'Neighbourhood growth booster' (*Accélérateur de croissance pour les quartiers*) for which ERDF support amounting to €194 725 is being paid to the Greater Toulouse Metropolitan Council. The latter is conceived in partnership with the public employment service in order to include inhabitants of neighbouring deprived areas in the dynamics of business and job creation.

## TOULOUSE ONCOPOLE – France

### *Cancer treatment with neighbourhood community care*

Toulouse, home to more than 100 000 students, is renowned for its prestigious School of Economics as well as its Aerospace Engineering School (Toulouse is one of Europe's major aerospace centres and headquarters of Airbus). The university's School of Medicine was created in the 14th century, and its comprehensive cancer centre, the Claudius Regaud Institute, was built in 1923 based on the Radium Institute established by Marie Curie not long after she received her Nobel Prize.

The region of Midi-Pyrénées allocates 4.1% of its Gross Domestic Product (GDP) to Research & Development, and ranks fourth among French regions for its potential in medical research and first for its R&D intensity.<sup>1</sup> The sector provides around 5 000 jobs to the region.

Health and biotechnologies are thus two major industrial sectors in the regional economy, with the presence of two big names in the pharmaceutical industry (Pierre Fabre and Sanofi-Aventis), the availability of high-level university training and medical amenities, and the presence of public research laboratories of international fame – the National Institute for Health and Medical Research (INSERM) and the National Centre for Scientific Research (CNRS). As a location for a major cancer research facility, Toulouse has much to offer

The city also has a history of social care and anti-discrimination. One particular event is of importance here. In the 1930s, the southern periphery of Toulouse – close to the present Oncopole – became famous for hosting over 10 000 refugees from the Spanish civil war in the 'Spanish barracks' (*'baraquements'*). Since that time, many local charities and social firms have developed activities for deprived groups, one of the most renowned being the CRIC Association (*Centre de Rééducation des Invalides Civils*) which specialised in manufacturing prostheses after World War II and developed technical training in the field. Their training centre can host up to 120 people. It was requisitioned by the emergency services after an explosion at the AZF warehouse in 2001 (see below), as it could offer large shower facilities to the local population at risk of chemical pollution. Their commitment towards social causes is deeply rooted in local history.

### *The big bang*

On 21st September 2001, a warehouse at the AZF fertiliser factory exploded, killing 31 persons and injuring 2 500 people. The explosion affected a large area of housing in the neighbourhood, and schools and other public amenities were badly damaged. The interruption to the economy cost the city 1 200 jobs and the physical damage was estimated at €2.5 billion.



**Figure1. The site during decontamination phase (2004-2009)**

In reaction to this catastrophe, everyone in the surrounding area joined forces in order to overcome the trauma and fight against the chemical pollution the explosion had caused.

<sup>1</sup> Competitiveness Poles – Ministry of Industry (2011)

The organisers of European programmes in Midi-Pyrénées rallied to take swift measures to rebuild the destroyed amenities and reclaim the site. They decided to take advantage of Toulouse's strengths in medical research, national programmes to fight cancer and the national strategy of creating a series of industrial growth poles to create a science park dedicated to health and care – the Oncopole. The ERDF was instrumental both in funding certain key high-tech facilities and in ensuring that the development benefitted some of the most vulnerable groups in the city.

### *Nine steps to 4 000 jobs*

The Oncopole is a site made up of nine main blocks conceived in an integrated way, as a huge scientific park with additional public amenities for recreation (riverside park), health (hospital) and services (hotel, parking, etc.). It developed over several years:



**Figure 2. The Oncopole site**

1. The Pierre Potier Research Centre led the way in September 2009. It houses an incubator managed by the Metropolitan Council and is dedicated to bio-nano-technologies. In 2011, around 20 researchers and 2 start-ups worked there, but it can host up to 250 staff. It also houses the Advanced Technology Institute in Life Sciences (*Institut des Technologies Avancées en sciences du Vivant – ITAV*), which focuses on pre-competitive research.
2. In November 2009, the service centre (*Centre de Services Communs*), also known as the 'maison commune' was inaugurated. This large building houses the Toulouse Cancer Campus Association, the InNaBioSanté Foundation and the offices of the Cancer Bio Health Competitiveness Pole. It also includes catering facilities, banking services, office space for rent and a business centre with meeting rooms.
3. The private Pierre Fabre pharmaceutical laboratory, with headquarters in Castres (100 km from Toulouse) reorganised its various branches and relocated its entire research staff to the site in 2010. It now provides employment for 600 clinicians, pharmacists, researchers and technicians.
4. The new building of another private laboratory (Sanofi-Aventis) also opened in 2010, with around 800 employees.
5. The three-star Fluvia Residence-Hotel opened in 2011, offering 160 room-flats, restaurant and meeting rooms. It is a social firm employing 80% of people with disabilities.
6. The business park offers commercial property on 80 hectares of land next to a recreation area along the Garonne river.
7. The University Cancer Clinic is the core component of the Oncopole and the biggest physical investment of the whole campus. It is a public hospital with 312 beds, linked to several technical research platforms dedicated to cancer.
8. The construction of the Cancer Research Centre of Toulouse (CRCT), which shares a building with the University Cancer Clinic, started in 2011. The CRCT is made up of four scientific departments: Genetics and Cellular Oncology, Tumour Biology, Haematology and Immunology and Experimental Therapeutics. Half of the centre's space is reserved for new, external research groups, providing flexible room for potential growth. The CRCT

is part of the internationally recognised RITC Foundation (Cancer Research & Therapeutic Innovation Foundation), the largest Toulouse cancer network, which is made up of more than 60 CNRS/INSERM cancer research teams.

9. The recreation area along the Garonne river offers walking circuits linked to the clinic, as well as cycle paths connected to 'VéloToulouse', the city's bicycle hire scheme. This illustrates the integration of environmental challenges into the project design.

By 2014, around 4 000 people are expected to be working on the site.

Among the plethora of Oncopole projects being supported by the ERDF, two contrasting operations are examined more closely here:

- On the hard side, investment in the **Cancer Research Centre of Toulouse (CRCT)**, under the Innovation and Research priority (Axis 1), represents a major component of the site.
- On the soft side, the **neighbourhood growth booster** tackles the issue of human resources and local employment. It forms part of the Integrated Urban Development priority (Axis 6), and is coordinated by the Metropolitan Council.

### **Local governance by local heroes**

The most important issue to tackle after the explosion was decontamination. But it was also important for the local stakeholders to launch projects to save jobs. Several ideas had emerged before the decision to launch the Oncopole was taken, such as the creation of the Advanced Technology Institute in Life Sciences (*Institut des Technologies Avancées en sciences du Vivant – ITAV*). These early ideas were incorporated into the plan for the Oncopole.

In March 2002, following the Programming Committee meeting which brought together all regional, national and European stakeholders, Michel Barnier, EU Commissioner for regional policy, visited the site. At that time, the AZF industrial site was not one of the eligible areas covered by Objective 2. So in order to support its regeneration, the partners decided to extend the eligible area, taking into account the need to relaunch industrial activity, compensate for job losses, and rebuild facilities for vocational training, research and higher education, focusing in particular on those damaged by the explosion. The urban policy strand was reinforced with a series of parallel measures to ensure that deprived neighbourhoods benefited, especially those severely affected by the explosion, such as Empalot.

From the beginning, the conception and implementation of the Oncopole was steered by a local system of scientific governance. This was facilitated by the fact that the former mayor had a medical background and was Minister of Health between 2004 and 2005. Under his auspices, the industrial, academic and research circles convened around the vision of clustering national and international excellence to fight cancer in one single cluster while at the same time making sure local residents benefited from such developments.

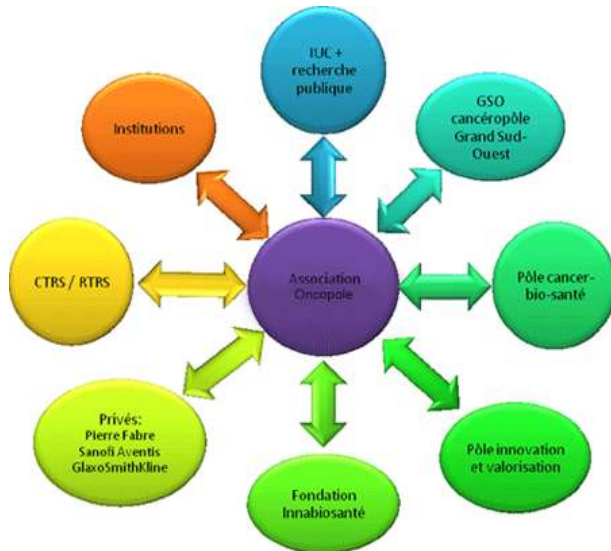
The management and coordination of the Oncopole is under the responsibility of an umbrella organisation, initially called *Association de préfiguration du Cancéropôle*, but renamed simply *Association Oncopôle* in 2010. Since 2006 it has four full-time equivalent staff.

Following the decision to convert the site into an Oncopole, the prefecture appointed a director to implement both the decontamination aspects and the creation of the industrial zone. Between 2006 and 2009, the director was in charge of coordinating all the issues related to public funding and sectoral policies, including urban planning, transport and accessibility, eco-development along the river and on the flood plain, the business incubator and decontamination.

Meetings were held fortnightly between direct stakeholders, including representatives of Greater Toulouse Metropolitan Council, the university, the hospitals, research centres and pharmaceutical companies. Two senior personalities who also happened to be 'local lads'

played a key role in the process: Mr Douste-Blazy, former Mayor of Toulouse, and Mr Pierre Fabre, founder of the eponymous pharmaceutical laboratory.

At present (April 2012), the *Association Oncopôle* has a €320 000 annual budget. Board meetings are held every quarter and steering committees every two months. Four thematic committees run in parallel: (i) land planning; (ii) economic development; (iii) communication; and (iv) ethical/societal, presenting proposals to the board. The association convenes yearly for its general assembly. The board members gave a new impetus to the activities and visibility of this umbrella organisation in March 2012, when they approved a three-year strategic road map, including the recruitment of a chief executive officer as of January 2013.



**Figure 4. Association Oncopôle: a true public-private partnership**

Within the Oncopôle Association, the scientific governance is complemented by a strong local governance system through the presence of socio-economic stakeholders such as the Metropolitan Council, the Public Employment Services and the multiplicity of training bodies and NGOs associated with the city's Integrated Urban Programme. In the diagram above, they fall into the category 'Institutions'.

### *Jobs for local people*

Alongside the science park development itself, several other projects have been conceived in partnership with the Greater Toulouse Metropolitan Council (*Communauté Urbaine du Grand Toulouse*) and the Employment House (*Maison de l'Emploi*) in order to include inhabitants of neighbouring deprived areas in the dynamics of business and job creation. One of them is called the 'neighbourhood growth booster' (*accélérateur de croissance pour les quartiers*). It started in 2009 and was co-funded by the ERDF. Its aim is to secure 30% of the Oncopôle jobs for the local population.

Supported by the ERDF priority axis for Integrated Urban Development, the neighbourhood growth booster consists of made-to-measure support, provided by the employment services, training bodies and social inclusion stakeholders around the science park. Dedicated staff help new businesses with their recruitment. Available skills are compared with job demand and training modules are adjusted to fill any gaps. Pathways to employment are proposed to people living in the neighbourhood, covered by public expenditure. For instance, a group of 12 young people living on the periphery attended a long-term nursing course for which they could not have afforded the fee themselves, and are now about to get their diplomas.

A social firm involved in the process<sup>2</sup> was able to recruit a dozen people for seasonal work as gardeners (green jobs), and eight of them were re-employed in 2011. Temporary contracts could therefore be transformed into permanent jobs.

By the end of 2013, 160 direct and indirect jobs should be created thanks to this ERDF project, with 30% of people living in the neighbourhood.

In addition, the Fluvia Residence opened its doors in October 2011, employing 80% staff with disabilities. It is the first three-star hotel to have such a high ratio of handicapped employees in Europe. This social firm is partly funded (€1 million – November 2011) by the ERDF under the Integrated Urban Development priority, in order to provide catering services to the nearby hospital and laboratory staff.

Of course things could go faster. Owing to its small size, the *Association Oncopôle* cannot always respond swiftly to all that is asked of it, and still has to gain recognition from the local communities. Bridges established here and there by social firms or other stakeholders via training and employment paths are often the result of isolated strategies, which see the campus as a novel labour market niche in the service sector. The scientific governance is led by high-level personalities and key decision-makers from national bodies such as INSERM; the local remit of such major bodies is less important than their overall investment process.

This is where the scope of the Integrated Urban Development Programme and the role of the Metropolitan Council could possibly be expanded, allowing for better synchronisation and coordination with the Innovation and Research priority axis. For instance, at the precise moment when the Integrated Urban Project was proposing and supporting training courses and social inclusion pathways, the two private research laboratories were introducing redundancy plans. The economic crisis did not spare the local labour market and many social firms had to revisit their strategies in the light of the two-year delays incurred by the building programme. However despite this time distortion, the reservoir of labour remains a great opportunity for the neighbourhood once the hospital opens in 2013-2014.

### **Pooling resources**

Along with the Cancer Research Centre of Toulouse (CRCT) goes the major component of the site – the hospital. Work started in 2011, together with the University Cancer Institute (also known as University Cancer Clinic). The planned building is gigantic as it combines 65 000 m<sup>2</sup> of space to rehouse several departments of Toulouse teaching hospitals and applied research facilities with 10 000 m<sup>2</sup> of space for the CRCT. The CRCT brings together research teams from the National Institute for Health and Medical Research (*Institut National de la Santé et de la Recherche Médicale – INSERM*), CNRS and Paul Sabatier University, all working on cancer. It currently has 250 staff spread around the city's public and private hospitals, and will have space for up to 350 people. Public research goals focus on (i) increasing fundamental research to open up new concepts; (ii) improving technical facilities for clinical research; (iii) developing interdisciplinary research and training; (iv) fostering innovative projects and public/private partnerships; and (i) building bridges between research, care, charities and voluntary action in the field.

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<sup>2</sup> Gauci Group – see <http://www.gauci.fr/site.html>

Under Priority Axis 1 – Reinforce research potential – nearly €11 million of ERDF money has been invested in the CRCT and its four facilities: (i) a laboratory area for research staff; (ii) a specialised area with dedicated technical platforms; (iii) a regional centre for functional exploration and experimental research called CREFRE; and (iv) an area for services and logistics. Once opened (in 2013-2014), it will house 2 400 researchers and the hospital will employ 1 000 staff covering 312 hospital beds.

### A smart way to focus on the future

At metropolitan level, Greater Toulouse adopted the regeneration plan as one of its major projects in 2004. It represents an important challenge of economic diversification in the sector of health. Simultaneously, the ERDF regional operational programme for 2000-2006 was revised, and the region obtained additional funding of €23 million as a result of good programme performance. Part of this new commitment was allocated to the reconstruction of the damaged amenities in Toulouse (Gallièni school, Empalot kindergarten and public library) and to the reclamation of the industrial site, in preparation for hosting the Oncopole. The new high school reopened in 2008: it can now take 1 400 pupils and was awarded a High Environmental Quality label.

The scientific and technological strand of the smart growth dimension was also enhanced by the metropolitan strategy for transforming the polluted and abandoned industrial area into a 21<sup>st</sup> century model science park. The plan addressed environmental issues (pollution, flood plain, landscaping the riverbank, cycle paths), as well as social aspects linked to the AZF explosion, by taking into account the economic potential of the projects for creating local jobs and social inclusion. Transport issues were also taken into account, at the request of the neighbourhood committees, and social clauses were added to public procurement contracts for construction and services on the site.



Figure 3 Advertising Panel (March 2012)

So from the point of view of the city, the whole concept is geared towards smart but inclusive growth, with hospital amenities provided on the same site by research and innovation bodies on one hand, and by social enterprises and service companies on the other, all gathered around a common motto: the fight against cancer. The service centre (*maison commune*) provides a good illustration of this approach, by housing offices for the League against Cancer and the ‘Cancer-Bio-Health’ Competitiveness Pole, as well as laboratories for the Swiss firm Spirig, which specialises in skin cancer.

### Adapting national strategies to benefit the city

The Oncopole forms part of three major national strategies: the national health scheme ‘The Cancer Plan’ (*Le Plan Cancer*), the Competitiveness Poles, launched in 2004 by DATAR, and the Integrated Urban Development policy. With the help of ERDF funding, Toulouse managed to blend all three into one tailor-made package which met the specific needs of the city.

## 1. The Cancer Plan

In 2003, President Chirac established an intergovernmental group to fight cancer and launched the first Cancer Plan for the 2003-2007 period, which was continued with a second plan running from 2009-2013. The idea was to set up a five-year strategic plan around six priority areas – prevention, detection, accompaniment, care, education, knowledge and research – for one single goal: to beat the disease and fight for life. The target was to decrease the number of deaths due to cancer by 20% over five years. This plan is considered as the basis for a contemporary public health policy focusing on cancerous pathologies which takes account of the entire health system: not only patients, but also their families and friends, as well as the medical and nursing teams. The former mayor of Toulouse, Mr Douste-Blazy, himself a former doctor, became involved in this national scheme when he was Minister of Health between 2004 and 2005. He therefore had all the first-hand experience required to adapt the plan to the needs of Toulouse.

## 2. The competitiveness poles

The second national initiative was launched by DATAR (*Délégation Interministérielle à l'Aménagement du Territoire et l'Attractivité Régionale*) in 2004, in the form of a new industrial policy to position France's key sectors in an ever more competitive global economy. The notion of 'competitiveness pole' is based upon a combination (cluster) of enterprises, research centres and training organisations engaged in a partnership called a 'common development strategy' in a specific area, aiming to unlock synergies around innovative projects in a given market.

The goal of the policy is to spark initiatives and support the involvement of local economic and academic stakeholders.

The label of 'competitiveness pole' (*pôle de compétitivité*) is granted by the Interdepartmental Committee for Competitiveness and Land Planning (*Comité interministériel d'aménagement et de compétitivité des territoires – CIIACT*). This committee, chaired by the prime minister, sets the government guidelines for land planning. In July 2005, it granted the title to 67 competitiveness poles after receiving 105 applications. Following another round of new applications and the merger of some existing ones, 71 poles have been in operation since 2007.

## 3. Integrated Urban Programmes

For the 2007-2013 programming period, France decided to link its urban policy to European urban development policy. In compliance with Article 8 of the ERDF, it instigated the creation of Integrated Urban Programmes – IUPs (*Programmes Urbains Intégrés – PUI*). This principle is formalised in a government bill<sup>3</sup> officially launching 61 Integrated Urban Programmes.<sup>4</sup>

In the Midi-Pyrénées region, Integrated Urban Programmes are cofinanced through Axis 6 of the operational programme. The regional prefecture, Managing Authority for the programme, launched a call for Integrated Urban Programme projects in November 2007. Two applications were selected, among which the Municipality of Toulouse (426 000 inhabitants). The Oncopole is part of the Toulouse IUP.

### *Economic empowerment*

The Oncopole is located on a site which is a scar on the metropolitan fabric. Its implementation was technically very complex in the early stages as it had to juggle regulatory issues, urban planning rules, decontamination, scientific challenges and public health. All these dimensions had to be handled simultaneously on a daily basis, driven by the necessity to avoid a local economic downturn.

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<sup>3</sup> dated from 5<sup>th</sup> October 2006

<sup>4</sup> Source: [http://www.europe-urbain.org/wo/site/public/v\\_fr/webop!/documentation/index.php?is=2693947&cs=8H3ww1hRjchLXsprCx2W&i\\_p= 8&mpi=\[6\]\[2\]](http://www.europe-urbain.org/wo/site/public/v_fr/webop!/documentation/index.php?is=2693947&cs=8H3ww1hRjchLXsprCx2W&i_p= 8&mpi=[6][2])



Thus the smart growth dimension stems from the 'solidarity' and economic empowerment mission, strongly put forward in all strategic and communication plans; it corresponds to the vision of bringing social innovation to the local economy while delivering ad hoc services to the site.

The integrated approach to the projects is also secured through minor but innovative actions, such as adding social clauses to the terms of reference for service contracts. For instance, the catering facility has to comply with specific nutrition rules related to health and healing. The banking service had to include specific packages adapted to persons undergoing cancer care, etc.

The added value of the ERDF goes without saying. The reallocation of €23 million of the ERDF performance reserve in 2004 provided a unique trigger to accelerate the whole process, which speeded up the decisions needed to create an internationally recognised science park dedicated to cancer research and care. Although stakeholders do not consider it to have been the main factor behind the decision to create the Oncopole, it certainly created the conditions for lifting the project onto a higher level at the very moment when major public policies were being designed and negotiated, such as the Region-State Project Contract and the European Competitiveness and Employment Operational Programme 2007-2013. The ERDF also allowed many of the projects to continue from different programming periods under different forms. For instance the neighbourhood growth booster project led to a larger operation to provide accommodation and services to families visiting the hospital, which has benefitted from €1 million of ERDF support under the Integrated Urban Programme in 2011.

The opportunity offered by the 2007-2013 ERDF Integrated Urban Development Programme, under its Priority Axis 6, allowed for social issues and challenges to be taken into account, and represented an asset during the consultation process with neighbourhood residents, as it helped to shift minds towards the future and away from the human and physical damage caused by the explosion. The integrated approach of the neighbourhood growth booster provided a test bed for the city. After the Oncopole project was officially launched in 2004, the metropolitan council organised regular public meetings. These 'reflexion cycles' allowed for local voices to express themselves and nourished the planning process by formulating additional needs (e.g. bus stops and cycle paths) in the neighbourhood areas. In 2009, the newly established partnership that the neighbourhood growth booster had initiated with the public employment services and the health care training organisations led to the creation of a Local Plan for Employment and Inclusion (PLIE) managed by Greater Toulouse and cofunded by the ESF.

Another important notion is the focus on the end users – patients with cancer. This health care dimension of research is reinforced by the historical trauma of the industrial accident and gives the project a unique sense of humanism.

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