

# LA SAGRERA: UNITING PEOPLE, PLACES AND PROFESSIONS

Jessica Darling  
Tom Payne  
Weilong Zhang  
Xiaofan Jin

## INTERNATIONAL AND NATIONAL CONTEXT

Spain is a nation that prides itself on multi-generational synergies, inclusion of immigrants and home ownership. The 2008 financial crisis has painted a gloom portrait of Spain on the international platform. The consequences of the global economic crisis for Spain have been widespread. The country is bankrupt, there has been a devaluation of the housing stock and unprecedented levels of unemployment. These economic problems are enhanced with the changing nature of Spain's demography. Similar to many other European nations, Spain has an aging population due to the consequences of higher life expectancy rates and declining birth rates.

Nevertheless, Spain has emerged from troubled times before. Engrained in the composition of this country are valuable assets, excellent human capital and the resilience to rebuild itself again. Historically, the economy has been heavily dependent on the construction and service industry. Future economic growth lies in the Spain's ability to promote information and communication technology, health and manufacturing industries.

Due to the fact that Barcelona's economic output comprises 24% of Spain's Gross National Product, it has been affected by the financial crisis. The construction industry has played a major role in creating economic instability. That being said, Barcelona is known for creating innovative and sustainable industries. This is one of the major reasons contributing to Barcelona's large immigrant population. The city is perceived as an attractive place to live within Spain and internationally. Consequently, 17% of the city's population is comprised of immigrants. Barcelona's ability to create new economic opportunities is conveyed through the success of the 22@ District. The perception of Barcelona as a major European city is conveyed through the decision to develop a high-speed rail station in the district of Sant Andreu linking Barcelona with the extensive Eurorail network.

## STRENGTHS, WEAKNESSES, OPPORTUNITIES & THREATS

La Sagrera is strategically located in the district of Sant Andreu, which is within the bounds of metropolitan Barcelona. It has close proximity to cultural and business districts, including the city centre and the 22@ District. Sant Andreu benefits from having numerous modes of transportation. Metro and bus stations provide quick access to metropolitan Barcelona. La Sagrera also provides easy connection to regional Spain and Barcelona's international airport. The northern district of Sant Andreu has a highly active town centre. The composition of this area includes dense residential dwellings, open spaces and an abundance of retail locations.

The southern boundaries of Sant Andreu have fragmented land-uses. These include soft industrial, retail and both high and low-density housing. While residential communities such as Bon Pastor require attention, this area provides support to the local and regional economy. The disjointed land-use provides a unique opportunity to create new industries that will compliment the existing sectors.

Sant Andreu social structure is consistent with the demographic patterns of Spain. The composition of the community is aging and most homes are shared amongst nuclear and even extended family members. While some may view the realities of the changing social structure as a burden, it also presents a unique opportunity. An aging population provides the chance to provide new forms of housing, promote new industries and develop new skills.

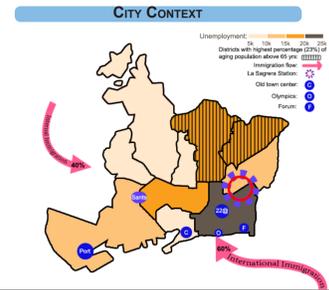
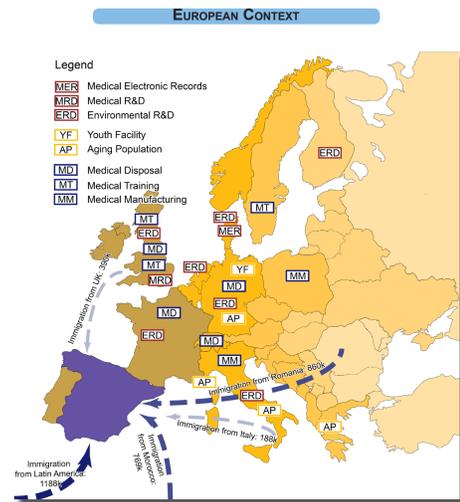
While Sant Andreu has many strengths and opportunities, it is impossible to deny that the construction of La Sagrera Train Station will have significant impacts on the community. This project increases the risk of overdevelopment, enhancing the north-south divide and becoming a soulless, transient place. It is imperative that planning for Sant Andreu's future incorporates the needs and desires of the existing community.

## VISION STATEMENT

The vision of *La Sagrera: Uniting People, Places and Professions (UPPP)* is to create demographic collaboration and cohesion to facilitate economic growth throughout La Sagrera. UPPP will establish synergies between all age structures by promoting new industries and building community centres. UPPP will establish numerous interventions that will create economic opportunities across varying industries that need a spectrum of skills and knowledge.

Engrained in UPPP's vision is the desire to maintain Barcelona's reputation as being an innovative and sustainable city economically, socially and environmentally. These goals will be reflected through the adoption of several cutting-edge industries that are resilient to changes in the economic and environmental climate.

## OPPORTUNITIES FOR DEMOGRAPHIC COHESION



**People**

- Active high streets in St. Andreu
- High residential density in pockets of La Sagrera
- Multicultural population
- Diverse age structure
- Good quality of public spaces in St. Andreu
- Numerous education institutions
- Several regional attractions (Park de la Placa, Saint Marti Park, Stadium, Cultural attractions)

**Professions**

- Robust High Streets in parts of St. Andreu and Bon Pastor
- Manufacturing and industrial employment sectors
- Shopping mall attracts strong business and serves the local community

**Places:**

- Evidence of cycling routes
- Good public transport links with greater Barcelona area
- Easy accessibility to the major roads and highways
- Recycling facilities are widespread throughout La Sagrera
- Mix of typologies and densities across site

**People**

- North/South socioeconomic disconnection and segregation
- Entire area lacks common identity and community

**Professions**

- High commercial and retail vacancy levels, this is especially apparent in many mixed use spaces
- Existing industries have little coordination and relationship between them

**Places**

- High levels of noise pollution around the periphery of the site and at La Sagrera tracks
- North/South disconnection in terms of physical connection and land-uses
- Areas of green and open space needs maintenance
- Green space is not well linked or integrated with surrounding communities

**People**

- Aging population creates opportunity to design public space catering to this demographic change (universal housing design, mobility, accessibility)
- Integrate unemployed youth into community projects and industries

**Professions**

- Create synergy between local industries and improve relationship between land use and economic activity.
- Transfer of knowledge between aging population and youth
- Health and medical sectors will become vital part of Spain's economy

**Places**

- Integrate existing industrial heritage buildings to create a particular character area
- Use waterfront as a sustainable transport gateway to connect with city center (promotion of green transport)
- Link green sites with surrounding neighborhoods
- Opportunities to re-industrialize south side of La Sagrera

**People**

- Development of the site may further divide the north and the south physically, economically and socially
- New construction is focused on hotel development. Do not want La Sagrera to be defined by the domination of tourists

**Professions**

- Decline in industrial site will lead to further loss of jobs in area
- New retail will siphon jobs from town centers

**Places**

- Industrial area may have negative environmental impacts
- High mobility of people around station may cause noise pollution and high levels of congestion
- Also has the potential to become a very transient area with lack of identity or culture
- New development has potential to be inconsistent with urban area. Need to plan for existing community and their needs

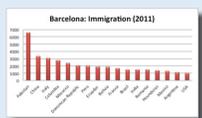
### SPAIN'S DEMOGRAPHIC TRENDS

Spain's population has aged considerably over the past 50 years. Spain joins many other European nations in the struggle to adjust to the realities of an aging population.



As there has been a decrease in fertility rates, this transformation of Spain's population structure is expected to continue well into the future. Consequently, the migrant population plays a crucial role in contributing to the work force.

The Catalonia region is regarded as one of the most attractive places in Spain for both inward and international migration. While Barcelona attracts many nationalities, its immigrant population is highest from the following countries: Pakistan, Dominican Republic, Philippines, China and Italy.



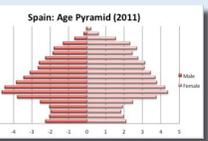
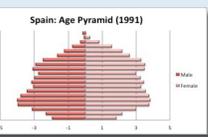
Historically, the migrant population has tended to concentrate in the North-East areas of Barcelona, including Sant Andreu. This area is more isolated than other areas of the city, reducing the probability that immigrants will integrate smoothly into the dynamics of the existing community.

### LA SAGRERA CONTEXT

La Sagrera is located in the Sant Andreu district of Barcelona. Sant Andreu is located 3km north of Barcelona's 22@ District approximately 6km to the city centre.

La Sagrera train station is surrounded by high-density neighborhoods with varying quality and character. While some areas have a thriving community and good quality housing, other areas, such as Bon Pastor, are neglected and underutilized. Sant Andreu also has pockets of large industrial warehouses, which are bordered by the El Besos river to the East.

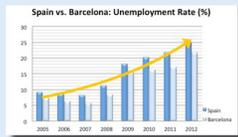
La Sagrera train station is currently dividing the surrounding communities. The railway network splinters the northern and southern communities contributing to further polarization. As a result, La Sagrera lacks a common identity.



### ECONOMIC CLIMATE IN SPAIN

#### SPAIN: The Bad Economic News Continues To Pile Up

Spain has struggled to recover from the 2008 financial crisis. The current economic reality is a national housing crisis that has eliminated the need for new construction and devalued Spain's banking and service industries. Unemployment is widespread, especially among youth. Figures suggest that over 50% of Spain's youth population is unemployed.

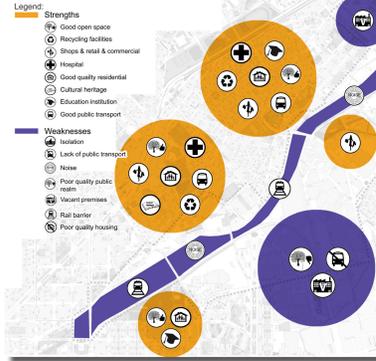


Barcelona has not escaped the economic crisis unscathed. In fact, Barcelona has one of the highest levels of youth unemployment in the country (64%). The majority of this group only obtain a high school diploma.

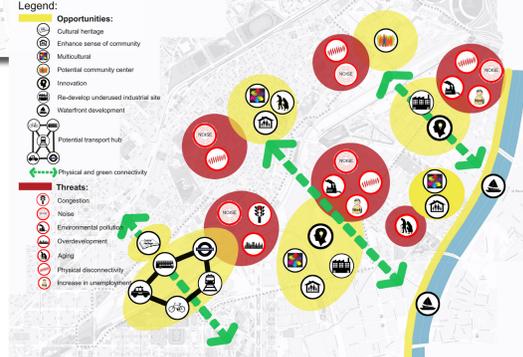
#### Barcelona, model of urban innovation

Nevertheless, Barcelona has always been perceived as an innovative and creative city. It also has a history of promoting the knowledge-based economy. Key sectors of this economy include information and communication technology, renewable energy and biotechnology. Barcelona also has a strong manufacturing sector. Presently, the metropolitan area accounts for 66% of the manufacturing jobs in the Catalonia region.

### Strengths and Weaknesses Analysis:



### Opportunities and Threats Analysis:



### INNOVATIVE & CREATIVE HUB

UPPP will build on Barcelona's international reputation as an innovative and creative city. New industries in Sant Andreu must not only maintain this viewpoint, but also enhance it.

UPPP will ensure this reputation is strengthened by introducing state-of-the-art industries and services. These interventions will include:

- Creating La Sagrera University Hospital
- Developing an Electronic Medical Records Industry
- Promoting a commercial cluster with a focus on medical and environmental R&D
- Preserving key heritage buildings for cultural, artistic and community events

### EMPLOYMENT HUB

UPPP will provide economic opportunities for the residents of Barcelona. Barcelona's future employment opportunities are contingent on bridging the gap between its ties to the manufacturing industry and promoting the advancement of health, technology and innovation.

UPPP will create employment opportunities requiring various skills and knowledge through the following interventions:

- Creating a Clinical and Medical Waste Disposal Facility
- Developing a Water Recycling Plant
- Promoting existing manufacturing activities, while encouraging new industries such as the manufacturing of disposable medical instruments

### COMMUNITY HUB

UPPP will encourage relationship building between generations and nationalities. The interactions and daily dynamics between people are the actions that facilitate strong community ties.

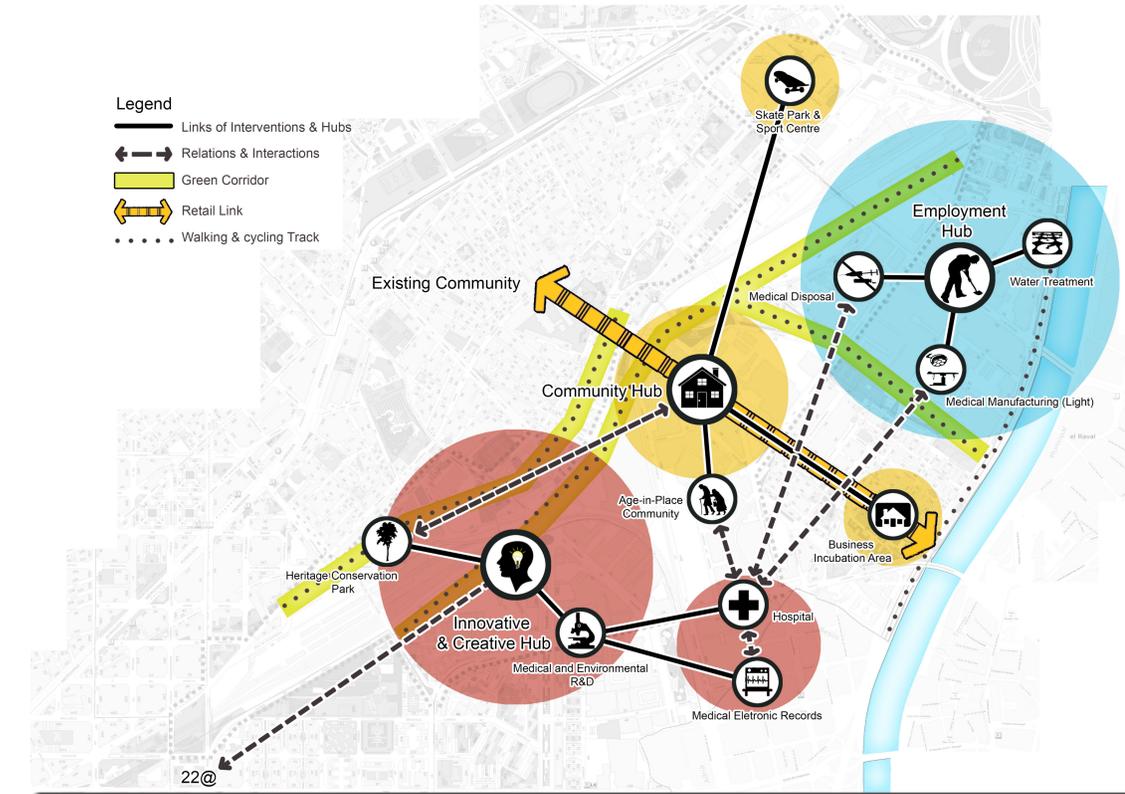
It is for these reasons that UPPP will create interventions that will promote collaboration and cohesion between young, old, existing and migrant residents. This will be achieved through:

- Adopting the practices of an Age-in-Place Community
- Promoting a Business Incubation Area in Bon Pastor
- Creating a Skate Park and Sports Centre

# LA SAGRERA: UNITING PEOPLE, PLACES AND PROFESSIONS

Jessica Darling  
Tom Payne  
Weilong Zhang  
Xiaofan Jin

## CONCEPTUAL MAP



## INTERVENTIONS

**La Sagrera University Hospital**  
HUBc's second location to perform practical work. It will also place a hospital in the underserved area of St. Andreu.  
**Characteristics:**  
• Nursing program that will include internship with Age-In-Place Community  
• Collaboration between Medical R&D Cluster and 22@ District

**Electronic Medical Records (EMR) Industry**  
Building a relationship with Denmark will establish Barcelona as the first city in Spain to successfully move towards EMR.  
**Characteristics:**  
• Software coding, creating linkages with 22@ District  
• Scanning & transcription  
• Storage and inventory management

**Medical and Environmental R&D**  
Commercial complex which promotes tenancy of health and environmental R&D companies  
**Characteristics:**  
• Clustering of E-Health and environmental research companies  
• Opportunity to collaborate with La Sagrera University Hospital, La Sagrera Water Treatment Facility and 22@ District

**Temporary Uses for Heritage Buildings**  
The heritage buildings scattered throughout the site will be used as temporary spaces to encourage the development of art and culture.  
**Characteristics:**  
• Photography, fine art exhibits, live music  
• Cultural events including celebrating religious holidays, ethnic food

**Medical & Clinical Waste Disposal**  
The increased prevalence of health and medical services in La Sagrera presents a unique opportunity to establish a medical waste collection facility.  
**Characteristics:**  
• Broad range of skills and knowledge needed  
• Industry can charge high premiums for work  
• Quick access to highway to transport waste out of community

**Water Treatment Facility**  
A neighbourhood scale water treatment plant serving grey water to 5,000-10,000 new build homes and businesses.  
**Characteristics:**  
• Attract knowledgeable professionals in the environmental science field  
• Research centre adjacent to facility to act as nexus between private and public institutions

**Industrial and Manufacturing Cluster**  
Encouraging the expansion of existing industrial industries around La Sagrera. Will also promote new opportunities, such as manufacturing of disposable medical instruments.  
**Characteristics:**  
• Employment opportunities for individuals with less education  
• Manufacturing of disposable medical instruments is a recession-proof industry and will reduce the need for Spain to import these products

**Age-in-Place Community**  
A community that is suitable to house a generational mix, promoting age-in-place living.  
**Characteristics:**  
• Universal housing design: Usable housing by everyone regardless of age or ability  
• Three-tiered retirement community: independent living, assisted living and full care  
• Co-housing facilities: home owners and renters share facilities with neighbours.  
This lowers costs for both residents and developers and builds social cohesion.

**Bon Pastor Business Incubation Area**  
Transfer of knowledge between retired professionals and unemployed youth. It will also act as a meeting place to engage in entrepreneurial and creative thinking.  
**Characteristics:**  
• Access to computer labs and IT classes  
• Vocational training and network opportunities  
• Mentorship program between elderly population and youth

**Skate Park and Sports Centre**  
A youth sports and cultural facility, as well as a small-scale leisure centre to the north-east.  
**Characteristics:**  
• Skatepark, practice area, dirt jumps, basketball courts  
• Sheds to be used for music and art workshops  
• Legal graffiti walls will be spread across the site

## FUNDING

**University of Barcelona**  
<http://hubs.uib.edu/en>  
The HUBc at the University of Barcelona is a meeting place health care professionals, academia, research and innovation. Their goals include the development of innovative thinking to achieve economic development and a sustainable society.

**Denmark Electronic Medical Records Industry**  
<http://www.reforminghealthcare.eu/economist-report/some-roads-ahead-approaches-in-five-west-european-countries/denmark-electronic-patient-records>  
Denmark is the world leader in the EMR Industry. Denmark has been using EMRs since 1999, proving to the world that this industry has health and economic benefits

**Barcelona Digital Centre Technologic**  
<http://www.bdigital.org/>  
Multidisciplinary team specializing in the research and development of E-health, food and environment, mobility, energy, security and innovation.

**Temporary Spaces in Leipzig, Germany**  
<http://www.dtl.de/node/5559>  
Leipzig has demonstrated that industrial land can play a vital role in the urban fabric. The city has preserved parts of an industrial site which are used today for art galleries, studios and restaurants.

**Initial**  
<http://www.initial.co.uk/index.html>  
Initial provides services in medical and clinical waste management, spill cleanup and consulting on clinical waste regulations. Has been in operation since 1903 proving the stability and longevity offered by this industry.

**Pine Creek Research Wastewater Treatment Centre**  
<http://www.youtube.com/watch?v=Noq8uqX8v8>  
State of the art facility built in Calgary under similar economic conditions to Barcelona. Uses leading edge design to remove water impurities to sustain municipal water supply.

**DEAS**  
<http://www.deasnet.it/>  
Italian company which has specialized in manufacturing breathing solutions for respiratory care since 1987. Products include: oxygen and aerosol masks, airway management tubes, connectors and anaesthesia face masks.

**Heritage Manor (United Kingdom)**  
<http://www.heritagemanor.co.uk/abbingtonrange/index.php>  
Community which has the three tiers of retirement on premise with staff to accommodate a wide range of needs.

**Lancaster Cohousing (United Kingdom)**  
<http://www.lancastercohousing.org.uk/>  
An intergenerational community that encourages social interaction by sharing common spaces and the preservation of ecological values.

**Barcelon@activa**  
<http://www.barcelonactiva.cat/>  
Barcelona Activa has been promoting economic growth in Barcelona for over 25 years. This program strives to support business, entrepreneurship and employment opportunities and has created thousands jobs in the process.

**Mellow Park**  
<http://www.mellowpark.de/>  
The skate park will work in collaboration with Mellow Park in Berlin. This facility will promote youth sport and serve as an important addition to the skate and bmx scene across Europe. Similar to the Woodward model in the USA, the park will be used as a camp, as well as host a number of competitions throughout the year.

## CASE STUDIES

• Student tuition to attend private institution  
• Funding from twenty-four institutions that support HUBc

• Equal funding from Federal Ministry of Health & Catalonia Government  
• High initial costs will be offset by positive return on investment created by a reduction in errors associated paper-based system

• Privately led development  
• Funding to come from R&D institutes who are looking to achieve an innovation clustering effect

• Heritage buildings will be refurbished using public funds  
• Discounted price to rent a venue for a public events

• Investment of private funds  
• Barcelona's aging population, superior health care industry and the increase in medical services in La Sagrera will make attractive investment arena

• Public funding from Barcelona Municipality  
• Private funding from the University of Barcelona  
• Private funding from water treatment

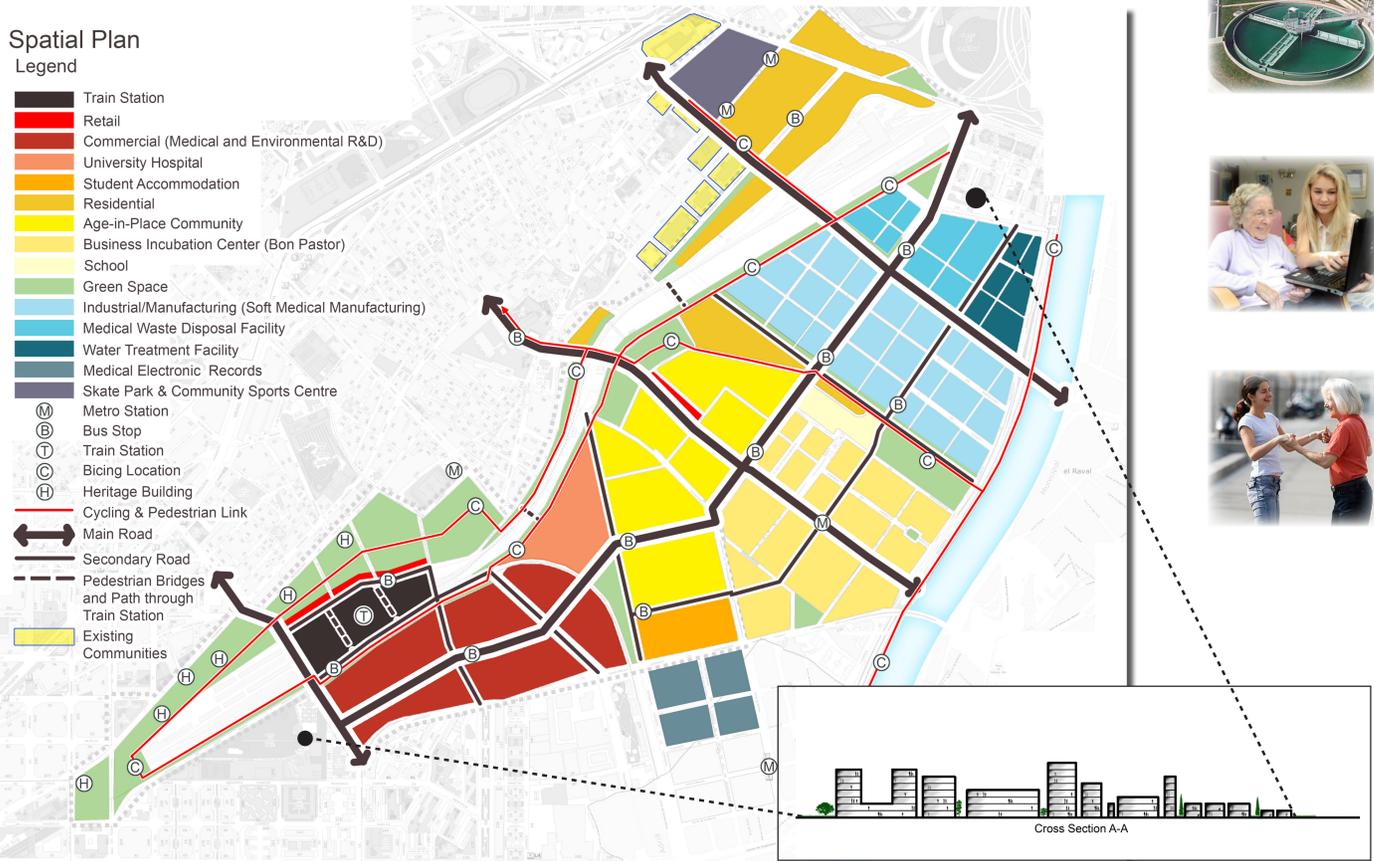
• Privately led development  
• Medical manufacturing facility could be subsidiary of Italian companies

• Graduates from the nursing program at La Sagrera University Hospital will work full time in the age-in-place community  
• Development will be market driven, with costs to the developer lessened by creating co-housing facilities.

• Bon Pastor Library will provide access to computer labs, IT classes and language courses  
• Barcelona Activa will provide the start-up capital to refurbish the key buildings in Bon Pastor

• Privately funded, costing €2/day  
• Option to work at park to pay for usage  
• Competitions, camping fees and corporate sponsorship

## SPATIAL PLAN



Phasing Timeline				
	Year 1 - 5	Year 6 - 10	Year 11 - 15	Year 16 - 20
Phase 1	Business Incubation Area is Established			
	Creation of Green Links and Cycle Network			
	Skate Park and Sports Centre is Built			
	Office Complex targeting Medical and Environmental R&D is built			
	Promotion of Industrial Space for Disposable Medical Instrument Manufacturing			
Phase 2	Refurbishment of Heritage Buildings			
	Construction begins for Medical Waste Disposable Facility			
	Consultation begins for Age in Place Community			
	Conversion of Warehouses for EMR Begins			
	Funding and Partnerships of La Sagrera University Hospital are Secured			
Phase 3	Completion of Medical Waste Disposal Facility			
	Heritage Buildings are Opened as Community Centres			
	Construction Begins for Water Recycling Plant			
Phase 4	Completion of Age in Place Community			
	Completion of La Sagrera University Hospital			
Phase 5	Transition of EMR To Barcelona Experts			
	Thriving internship program between Age-In-Place & University Hospital			
Phase 6	Water source for new build in La Sagrera is from Water Facility			
	EMR begins in other Spanish Municipalities led by Barcelona Experts			

## PHASING & IMPLEMENTATION

In order to achieve collaboration and cohesion between people, places and professions, change must be gradual and locally driven. UPPP will phase the changes of Sant Andreu's landscape over a 20 year period in order to reduce negative any perceptions of top-down implementation.

The first phase will facilitate small scale interventions, such as the creation of green links and cycle networks, conversion of warehouses and heritage buildings. These interventions will promote La Sagrera as an attractive location for business development.

The second phase will see the completion of the medical waste disposal facility and initial training from Danish Electronic Medical Experts. The introduction of these industries will spur employment opportunities for a wide range of skills and knowledge.

The third phase marks the end of major construction projects including the water recycling plant and hospital. It will also act as the transition period of the electronic medical records to local management.

20 years in the future, La Sagrera will be a thriving community that has collaboration between its institutions, residential areas and public spaces. It will be an innovative community, pioneering environmental and medical research and development.