

The Value of Social Integration Tools. A Psychological Intervention on Urban Design in the City of Piacenza

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ABSTRACT

Using the cognition of environmental psychology can help Metropolitan experts and evaluators to understand how to instill a sense of belonging among citizens, and mostly, immigrants, which can help reduce several urban issues, including some value negative effects. This could revitalize social interactions in several neighborhoods, trying to define a dialogue, for various economic, social, and cultural improvements, mainly in a downtown context.

In this paper, we discuss the basics of psychological challenges and their connections, trying to define how these elements can help planners to create a sense of belonging in urban spaces and neighborhoods, before giving the reader a relative understanding of the physical-social condition of Piacenza through the connected cognition of the urban setting of the city. Then, in the consideration of the role of some experiences and theories of integration in Europe, the paper will promote some approaches, appropriate to the psychological factors, of designing and evaluating urban settings in the city, promoted in the hexagon analysis of the downtown, also encouraging an implementation model for each of the scale levels.

INTRODUCTION

Human beings have shown significance in their socio-environment, concerning the surrounding world, followed by a sense of belonging to the place, which increases the quality of the well-being of the neighborhood. The urban environment, regardless of its general characteristics and features, due to its impact on the behavior of residents, should be more in the spotlight. Behavior, as a way of doing an activity, is an important part of each person life and it is the set of behaviors of individuals in society and relationships with themselves that determines their personality and life path. The effect of environmental components on the formation of the behavior of residents shows the importance of neighborhood structures because each person behaves concerning their conditions, by being present in the space of a neighborhood.

Human behavior is the result of a set of motivations and needs of the individual (Pandolfi, 2020). Behaviors are generally divided into three areas: physiological behavior, social behavior, and environmental behavior. In social studies, behaviors are divided into two groups: individual behaviors and collective behaviors. Also, behavior has characteristics that distinguish it from activity (Mizrak et al., 2015). The theories about value determination in terms of personal and cultural factors connected to it have a lot to deal with these elements (Pandolfi, 2020). Behavior is evident and adaptable to the human psychological space, which involves knowledge, experience, norm, value, and memory (Pakzad, 2009).

What generates behavior in the urban environment is the perception and senses that a person gets from the space itself. The set of these behaviors can generate social interactions. As a result, the senses that the environment gives to an individual or a community of individuals is one of the main pillars of interactions. Meanwhile, urban architecture played an undeniable role in the creation of the senses in the urban environment. Space, matter, and time fuse into one singular dimension, into the basic substance of being, that penetrates our consciousness. We identify ourselves with this space, this place, this moment, and these dimensions become ingredients of our very existence. Architecture is the art of reconciliation between us and the world, and this mediation takes place through the senses (Pallasma, 2012).

One of the important components of redesigning the neighborhood should be to provide to residents a territory that can ensure social interactions and collective life between different age groups, sex, and even special groups. Therefore, considering the phenomenon of immigration and diversification in European cities, how to create or process the mentioned senses in the urban environment to increase interactions and reduce social segregation is one of the main tasks of urban design. In this regard, we can refer to the category of socialization of collective spaces, which is admirable to consider in social interactions and is one of the basic pillars of improving the quality of collective life in neighborhoods (Ortiz et al., 2022).

In a city where ownership of public space is centralized, good urban design is undersupplied (Webster, 2007). The power of urban spaces is not only based on the number of people who use them, but also depends on factors such as the satisfaction from using them, inclusiveness, and functional and physical diversity in terms of seeing and being seen of individuals, which are directly related to concepts such as territory, sense of belonging, sense of ownership and sense of security.

Common public areas in cities must be properly designed to prevent chaotic developments and to achieve the desired boundary of interaction from their point of view (Ansari et al., 2008). Hence, the responsibility of urban designers is undoubtedly observable in the definition of urban spaces by identifying the space affordance, the location of items and functions, and then the proper classification and allocation of activities, to balance interactions.

One of the most influential factors on the concept of territory in different areas is its perceptual-psychological issues, which are considerable because of human existence as a user of space. In the human hierarchy, security and peace of mind have a special position that can be examined in any private or public environment (Contin & Galiulo, 2020). Apart from the issue of feeling safe, the sense of belonging to the space, the readability of the environment, and the needs, and motivations of being in the environment should be given value for shaping the territory. In this consideration, the concerns regarding distribution management, which determine inequalities between social classes, should be considered also from a real estate market perspective (Pandolfi, 2019), promoting a new approach to space evaluation. Space quality should be deemed as the most important economic asset, as proper spatial distribution policies will considerably impact the perception of value in urban systems, driving long-term consequences on the decision-making process (*ibidem*).

PUBLIC SPACES AND SOCIALIZATION

The words ‘sociable’ and ‘evocative’, first introduced by Humphry Osmond and Robert Summer (Osmond, 1959), correspond to space features that could bring people together or apart. Through interaction and social communication between users of each public space, socialization can be encouraged, especially, in an effective presence, both in private and public life: this process is very important (Forgas et al., 2000). This is why public spaces with the characteristic of sociability are an important complement to the socialization of individuals. In addition, the socialization of public spaces promotes the spirit of solidarity, and personal growth, creating and improving appropriate behavioral patterns in the social and individual life of individuals.

Socialization in public is related to the need of people for a sense of social belonging and interaction: it can be encouraged by a supportive social environment and through physiological comfort (Lang, 1994), but also a sense of ownership and justice in space

(Alexander, 1968). Social interaction and communication can be a physical issue, look, conversation, and communication between people, which requires the definition of appropriate events and activities, and consequently the role of people in space and their membership in groups and social networks (Daneshpour & Charkhchian, 2007).

A sociable space is a lively space, where people go willingly: Jacobs (1961) considers the range of uses and activities in different periods an essential factor of vitality. Living public spaces as meeting places for people is essential in daily life, as their main function is to facilitate the presence of the people. Therefore, its social and cultural aspects have a special place. Public space in neighborhoods should deliver chances for social interaction to create a sense of cohesive local community (Madanipour, 2008). Neighborhoods have a key function in promoting the sociability of residents. The process of socialization can be achieved by establishing interaction and social communication between the users of each public space, and the ability to participate in interaction with others, both in private life and in the public and professional life of human beings. One of the most important aspects and features of public spaces is to create the necessary opportunities for social interactions. When people interact with other people in the community, they feel a stronger connection to their place and community. This factor can be measured and evaluated by determining the presence of different social groups, the formation of social networks, and life during the hours of the day (Daneshpour & Charkhchian, 2007).

According to the criteria that researchers have expressed about socialization, it can be explained in such a way that it is a socialized space that can have a popular community at all hours of the day for a long time, in other words, it is an inviting space. I.e., outdoor spaces should promote social interactions and communication: observation and conversations occur during this relationship. This place has the basis for increasing experience, interchanging feelings, and thoughts, etc. (Shojaei & Partovi, 2015). Public spaces should, therefore, promote social interactions among citizens and a sense of presence in the whole city, promoting the resulting psychological and emotional needs of citizens, supporting the sense of belonging in different social classes, reinforcing the role of public spaces at different scales, and preventing shutdowns and exclusion of places, which have an irrefutable role to design successful urban spaces (Shojaei & Partovi, 2015).

To prepare an appropriate model for measuring sociability in the neighborhood, its components have been extracted according to the studied sources according to the table below.

Table 1 – Social Components Affecting the Collective Space

Aspects	Factors	Criteria
Physical	Accessibility	Proper physical communication and pedestrian access and visual access, access to different age and gender groups and special groups
	Comfort	Physiological, psychological, and environmental comfort
	Security	Physical and mental security
	Natural elements	Increase the excitement of vitality and provide the possibility of rest
	Supply of territory	Chance of territory of individuals and groups to carry out their activities
	Flexibility	Flexibility in daily and unpredictable activities
	Readability	Predictability of space and understandable neighborhood hierarchy
	Behavioral Setting	The quality of inviting space to form human communities
Active and social	Social interactions	Providing the possibility of social interactions between different groups in an organized and random manner
	Compulsory activities	Repetitive activities regardless of the quality of the space, such as going to work
	Optional Activities	Activities that occur when the space is inviting, such as walking, reading
	Social activities	Occurs when present in space, such as: watching, listening, and active and passive participation

Source: Authors

Security is another crucial factor for collective places in neighborhoods and constructive social interactions. The collective life of neighborhoods and the identity and sense of belonging of residents can also be successful in ensuring local safety: its importance and impact on other elements turn it into an operational environmental quality. Overall, the feeling of social security has a positive psychological orientation promoting the presence of citizens in common places, and it deals with factors, like economic, and political stability, identity, territorial integrity, and security (Hajjani, 2005). The occurrence of crime in a neighborhood and the lack of security in it depends on various factors and conditions. Part of this issue depends on the cultural conditions of the neighborhood, the social and cultural characteristics of the context, as well as the economic conditions of its inhabitants, and is effective in turning such spaces into places for crime and insecurity for citizens. But studies and research such as Oscar Newman (1972) have shown that environmental factors and physical conditions of the fabric are also effective in the occurrence of crime. Therefore, such factors are more important in migratory urban fabrics to intensify their effects.

SENSORY ANALYSIS OF THE REFERENCE AREA

In the context of the study area, the discussion of sensory richness and attention to all the senses for the perception of residents, and the environmental quality concerning the senses of the audience causes disorders and unpleasant feelings in some cases. The aimless passing and wandering of strangers, suspicious activities, vehicle noise, along with visual disturbances caused by the deterioration of the neighborhood body indicate the low quality of the sensory landscape and perception of people. The impact of such problems on the human senses is directly related to the sense of place and attachment of people to their neighborhood. The unwillingness of people to be present in the neighborhood and public places causes alienation of people from the neighborhood and will negatively affect their quality of life and vitality. Knowing the factors affecting the human senses in achieving sensory richness in the center of the neighborhood is of great importance. It can be mentioned that the efforts to improve the various sensory stimuli received by the five senses of individuals and also concerning the environmental aesthetics from the sensory point of view, took an important step in forming the ideal collective space of neighborhoods. Also, the concept of sensory richness and multi-sensory architecture, which is considered important today and is a missing link in the urban design process can be considerable and effective in this regard. The concept of sensory richness, by looking at all the human senses, tries to evoke different senses in different manifestations. It can be said that the human senses are one of the most important pillars of creating a sense of place for the audience. The unique sense of hearing, smell, or even taste of a space can be recorded in the mind of the person forever. To form sensory richness, familiarity with the concept of sensory landscapes as a representative of the elements of each sense in humans can help the formation of special senses.

A city is a realm of sensory landscapes and opportunities that change according to time, space, culture, and tradition, in which one interacts with the context in which one defines one's place. Although the first encounter with space is a visual experience, and the perception of space usually begins through appearances and observations, visual qualities are only one of the spatial qualities of the environment. The language of the landscape is our natural language; Humans have touched, seen, heard, smelled, tasted, and lived in the landscape before they had words to describe their work; Landscape connects places and people.

Urban space is felt and perceived through the perceptions of different senses. In the perception of space, the more the sensory organs are stimulated, the more effective the space will be and the more complete and deeper the perception of the space will be, and the more likely it is that the space will be attractive, motivating, and memorable. According to Bentley, the quality of sensory richness increases the variety of sensory experiences that make users happy. Sensory richness means a wide experience resulting from other senses. Therefore, the design should provide a range of rich

sensory options: the sensory perspective and the use of several human senses are qualitative criteria for assessing space (Lotfi & Zamani, 2013).

Sense of place, which means the mental perception of the audience of the environment, creates the sense of belonging of neighborhood residents to their neighborhood environment, followed by social interactions and social security and other environmental qualities are possible. If the addressee of the center feels a place while attending it, his identity is formed in the neighborhood and the emergence of social behaviors to achieve the goals of the neighborhood center is accelerated. Immigrant urban textures in the past have been characterized by a variety of elements, a sense of place, and identity to residents. Nowadays, the changes caused by urbanization in such contexts cause the lack of knowledge of the place by the residents of the neighborhood and the lack of a sense of belonging to the neighborhood itself. What elevates a space to a place is its incorporation into deep meanings and concepts that expand and deepen over time. Thus, the place is the result of meanings that are obtained over time and with the perception of the environment. Of course, it should be said that the formation of meaning due to human perception in the context of time is an issue that mainly refers to the unconscious and perceptual dimension in the silent layers of people's experience, and in psychology, it is interpreted as dependence and sense of belonging. The feeling is emotional in the place, the place is experienced in this way, and it includes different socio-cultural layers.

There are three basic elements in our experiences of the environment. First, 'visual observations' means successive revelations and visions as we move in, out, and between places. Second, the place is associated with various physical and psychological effects on indoor and outdoor space. At this stage of consciousness, one is confronted with a set of experiences that arise from the overall external and internal effects, and one soon discovers that as soon as one imagines a 'here' one should automatically create a 'there'. Third, is the content which examines components of the structure of the environment such as color, texture, scale, and uniqueness. According to the concept of sense of place in different perspectives and levels, the factors that shape the sense of place are examined in two groups: perceptual and cognitive factors and physical factors.

According to the concept of sense of place in different perspectives and levels, the factors that shape the sense of place are examined in two groups: perceptual and cognitive factors and physical factors. In the first group, we find the sense of place as a complex combination of meanings, symbols, and qualities. It is a cognitive system and structure making a subject feel belonging to the subjects, people, objects, and concepts of a place (Falahat, 2006). In the second group, we find physical factors affecting the perception and sense of place (Schultz, 2003). Lynch considers the sense of place as a factor that connects people and places creating unity and possibly raising the sense of belonging (Lynch, 1997). The factors affecting it could be identity, introspection, and satisfaction creates different levels of sense of place (Cross & Dorst, 2001).

THE CITY OF PIACENZA

In this part, we will briefly present the urban setting of Piacenza, to reach a relative understanding of how to process and implement the mentioned principles through the factors and components of the combination of physical and social context. Piacenza is a city with Roman origins located in the region of Emilia Romagna. The province is developed towards the south of the river Po and is characterized by many rivers and streams which descend from the Apennines. The plain territory is typically featured by large farms and is intensively cultivated. The main core of the city is composed of a variety of ecosystems such as agricultural and rural lands, the river, and Industrial sectors which shape the economic flows of the city. The location of Piacenza in the important transportation axes of Italy has brought a strategic position to the city. These axes are motorway A1, former SS9 via Emilia, railway line (conventional and High-Speed Line) connection axis Milano-Bologna-Firenze-Roma-Napoli East-West connection route: motorway A21 Torino-Brescia, Former SS10 via Postumia Inferiore, railway line - connection axis Genova/Torino-Piacenza-Cremona-Mantova. Due to its connections to transportation systems and its location in extremely fertile areas, Piacenza, as a NODE city, has developed an economy related to the distribution of goods, also produced in its market area, both agricultural and manufactured.

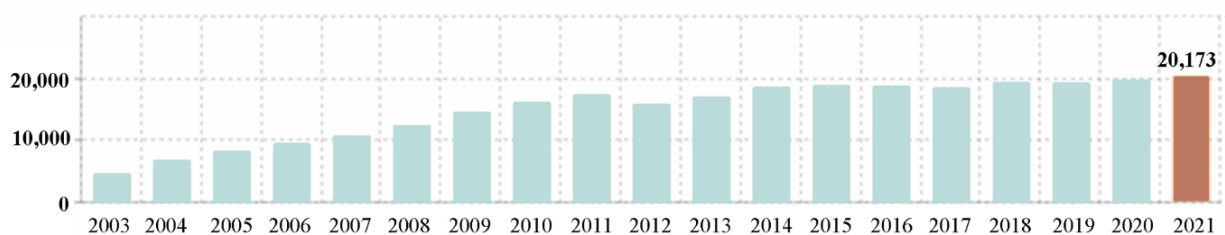
Figure 1 - The physical structure of Piacenza (1:40000)



Source: Authors

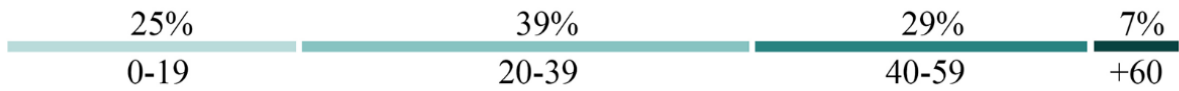
Considering that there is no accurate statistical data on the distribution of immigrants in the city of Piacenza and it is always subject to change, but with field investigations, we concluded that most of the immigrant population, which includes blacks, Arabs, and foreign Muslims, Eastern Europeans, along with a significant percentage of students, are concentrated in the northeastern sector of the historic part of the city. The main population concentration of immigrants is in the areas and corridors near the station and surrounding green spaces, the beginning of Scalabrini and Roma streets and the streets branching from it, and the beginning of the west side of Via Colombo and via Emilia. The low rent price and access to the station, agricultural lands, and industrial areas, as well as the proximity to universities and shopping centers with special discounts, are the main reasons for the concentration of immigrants in these areas. The more you move away from these areas, the number of immigrants will naturally decrease, and the density of the local population will increase. It is worth noting that in the mentioned areas, immigrants have taken over the commercial edge and have activities including butchery, fruit shops, grocery stores, and fast food, which are mainly managed by Arabs, Indians, and Pakistanis. It is worth noting that black businesses are visible around the station and public green spaces. Piacenza has valuable potential in terms of its strategic location, historical and cultural foundation, and terms of an industrial and agricultural ecosystem as well as social forces. However, the city has been unsuccessful in establishing economic and social flows and balancing them to release these potentials. This lack of success can be found in the character of each field and its systemic connection with other fields as well as managerial-political, socio-cultural, and economic backgrounds. In 2020, there were possibly 5,039,637 foreign citizens in Italy, about 8.4% of the total population. Regardless of the economic crisis, immigration has continued over the last years, even though the inadequacy of Italian laws and policies and the lack of effective integration policies. In Italy, immigration has always been considered a problem and an emergency, starting from the issue of illegal migrations, such as the arrival of African migrants in Lampedusa (Caneva, 2014). Thus, immigrant integration becomes a security and legality issue rather than a question of integration, being a more attractive concern to gain political consensus.

Figure 2 - The population of foreign residents in Piacenza from 2003-2021



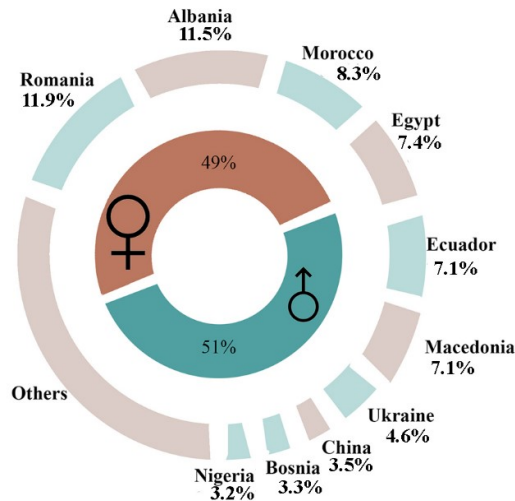
Source: Municipality of Piacenza (2022)

Figure 3 - The immigrant population in Piacenza by the age factor



Source: Municipality of Piacenza (2022)

Figure 4 - The immigrant population in Piacenza by nationality



Source: Authors according to Municipality of Piacenza (2022)

Figure 5 - Estimation of the distribution of immigrants in the Historic district of Piacenza and their hangout public spaces



Source: Authors

Lately cultural and social integration has been introduced to political discourses and policy tools. Though, Italian integration policies should have an assimilative approach, as there is a gap between policy and practice. Several policy records propose the allocation of funding, or the implementation of bodies committed to integration issues, actions that have never been implemented permanently. Plus, the implementation of policy tools is fragmented and heterogeneous, depending on the initiatives of local authorities and local private stakeholders. Optimistically, good practices from some local experiences will be transferred to some Italian contexts (Caneva, 2014). Lately, in Piacenza, several proposals have been submitted by the municipality and local authorities addressing integration, such as IAP, P2P, and several democratic participation programs. However, these actions met scarce support in terms of economic provision and physical opportunity, or they were barely socially inclusive.

CITY ANALYSIS

To connect the psychological concepts of the environment with the urban setting of Piacenza, the following hexagon model is proposed.

Although the role of an urban designer is to implement plans within the framework of specific and formulated policies, the designer can take a valuable initial step toward the social, economic, and even political changes of the urban future by implementing informal policies in urban frameworks. Urban design is a powerful arm to achieve social, cultural, and economic goals and policies in the city. Although the area of authority of the urban designer and planner in formulating macro-policies is not as wide as that of policy-making institutions, it can explain and implement the initial paradigms of large-scale changes in future policies.

For an explanation of the role of the designer and urban planner in formulating the implementation of informal policies of integration by exploiting environmental psychological factors, approaches and desirable strategies in both ecosystem and urban scales to match the analysis hexagon and informal policies have been defined. A social integration proposal is presented in Piacenza. These policies are developed through the study of the integration policies of 8 different European cities, including Amsterdam, Stuttgart, and Turku in the north and west of Europe, Warsaw and Prague in the east, Milan, Turin, and Barcelona in the south through the King 2014 project, in the context of Piacenza, considering It has been adapted to physical, demographic, and social factors in its scale.

In the detailed evaluation of the Hexagon part, it is worth mentioning that Finware, Civicware, and Orgware analyzes can be evaluated and debated in all functions due to their nature, and only the more distinctive dimensions have been specified.

Table 2 – Hexagon Model for Piacenza

Dimension	Criteria	Description
ECOWARE: Natural Capital	-Environment & natural resources -Landscape -Energy -Waste management	1-Paying attention to natural elements and environmental health approach 2-Increasing biodiversity and trying to reduce pollution
HARDWARE: Man-made Capital	-Built environment -Buildings -Technologies & building system -Land use -Transport	1-Providing environments for seeing and being seen, harmony between physical environment and behaviors 2-Environmental aesthetics 3-Providing spaces with relative security and comfort, providing private space and solitude in the urban body 4-Readability and clear definition of accesses, attention to the diversity of accessibilities, quality and stability of accesses 5- Variety of land uses and activities in the field of environment, Creating multifunctional areas and attention to adaptability to existing projects
FINWARE: Economic & Financial Capital	-Financing, incentives, subsidies -Costs -Economic vitality	1-Project implementation cost 2-Financial efficiency
ORGWARE: Institutional Capital	-Laws and regulations -Local governance -Partnership	1-Projects flexibility 2-Facilitating urban management supervision over the program, ease of social supervision 3-Achieving the implementation of support programs and workshops in the urban context 4- Possibility of project realization, time, efficiency, and effectiveness
SOFTWARE: Human Capital	-Training and knowledge -Education and sensitizing -Innovation and creativity	1-Paying attention to the five senses, strengthening the sense of place and strengthening the sense of belonging in the neighborhood 2-Increasing creativity and urban initiative 3-Promoting programs of culturalization and public awareness
CIVICWARE: Social Capital	-Equity and social inclusion -Participation -Local quality of life	1-Stabilization and diversity of behavioral domains, attention to different values and cultures 2-Providing behavioral synapomorphy and its diversity, as well as increasing urban life during day and night 3--Paying attention to historical and cultural contexts, increasing identity-making and memory-making approaches, 4-Adaptation and participation of stakeholders and responding to social behaviors

Source: Authors

The ecosystem level

The Main Goal is to create a comprehensive ecosystem network consisting of multi-dimensional circuits to connect ecosystems physically and virtually to strengthen the social and economic, environmental, physical, and accessibility dimensions with an emphasis on valuing social potential.

To partially implement the approaches mentioned in the physical and real context, the following strategy model is presented. In this model, each of the ecosystems (Urban, Suburban, Rural, Agricultural, Industrial, aquatic, and woodlands) and their interrelationships as well as their physical characteristics are appreciated. Then a circuit is established for each ecosystem to communicate and interact with another ecosystem. These circuits are physical and virtual accesses that, through various tools, create a cycle within the areas they pass through.

Table 3 – Proposed approaches for ecosystem scale

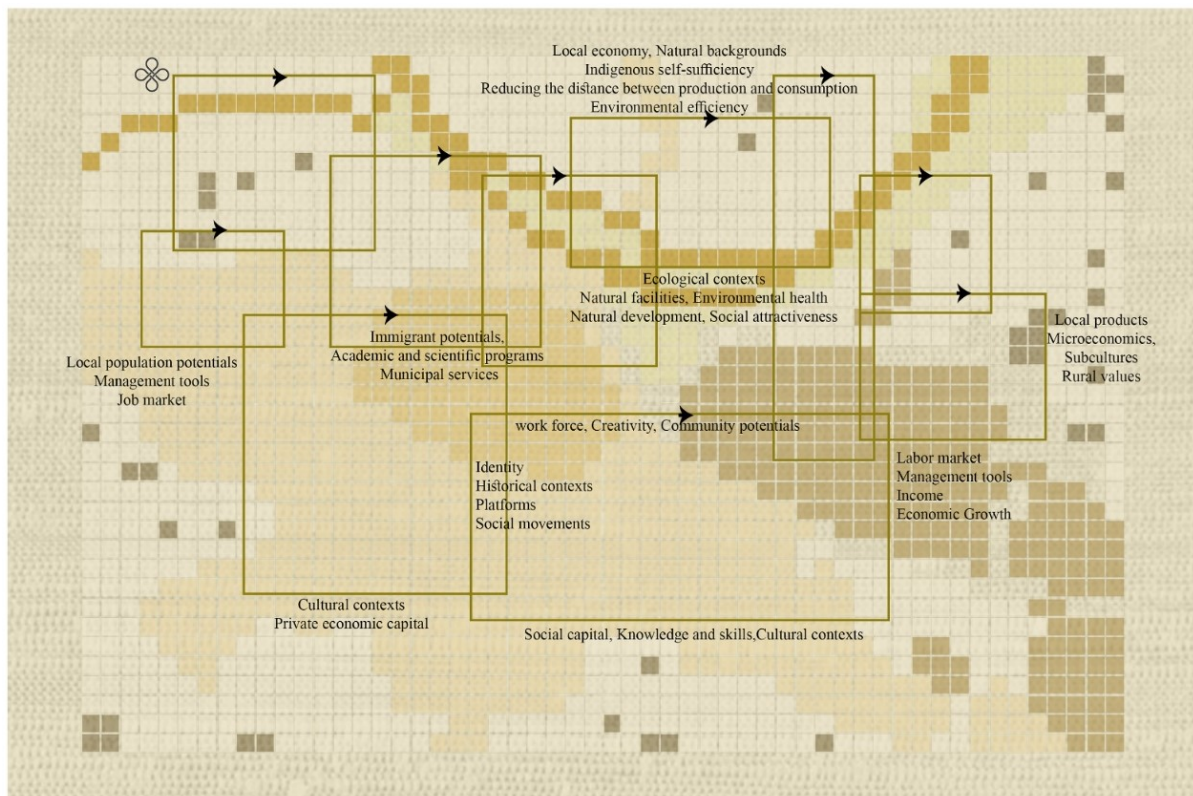
Proposed Approaches	Hexagon Analysis Character	Social Integration Character
1- Strengthening biodiversity and increasing vegetation and its diversity in the environmental context of each ecosystem according to its physical characteristics to beautify the environment and increase social interactions.	Ecoware	Legal/ Political
2- Increasing accessibility inside and outside the city by creating a full network of bicycles and appropriate urban furniture and establishing a hierarchical system of accessibility.	Hardware	Legal/ Political
3- Strengthening educational and academic programs to connect them with urban programs for integration and environmental perception and utilizing the potential of students as the second generation of immigrants.	Software	Socio/ Economic
4- Strengthening the dimensions of identity among different social layers according to the characters of each group using artistic, cultural, urban planning, and design approaches.	Software	Cultural/ Religion
5- Paying attention to creativity and initiatives, as well as historical contexts, traditions, and identity backgrounds of immigrants in the city for design, interactions, and urban economy.	Software	Cultural/ Religion
6- Strengthening urban land uses to increase diversity, as well as multifaceted investments by the municipality to create workshops and spaces for dialogue among different sections of society.	Hardware	Socio/ Economic
7- Creating multifaceted platforms to increase environmental diversity and functional diversity with an artistic, sports, social and economic approach.	Hardware	Socio/ Economic
8- Adding value to the social movements of different strata through policymaking and using volunteer groups, NGOs, local authorities, white elders, and holding meetings.	Software	Legal/ Political

9- Paying attention to the historical dimensions of the city by using urban design and planning in urban and inter-urban areas and recognizing the history of the city as a place to cultivate a sense of place or belonging.	Hardware	Legal/ Political
10- Paying attention to the potential of the local community to increase vibrancy and urban dialogue in the current and future designed spaces.	Software	Socio/ Economic
11-Expanding internal potentials to increase urban income and capital flow in urban land use.	Software	Socio/ Economic
12- Attention to private sector investments in the service of increasing social integration.	Software	Legal/ Political
13- Determining educational and awareness programs with low tuition to improve the culture of the interaction of different sections of society in urban spaces.	Software	Socio/ Economic
14- Applying the creativity, initiative, and abilities of immigrant groups in economic fields in existing and new urban land use.	Software	Socio/ Economic
15- Creating economic land uses related to each other to reduce the costs of saving in scale and following the creativity and ability of immigrants.	Hardware	Socio/ Economic
16- Paying attention to the expansion of local productions and attention to subcultures in urban and rural areas in newly designed spaces.	Hardware	Socio/ Economic
17- Teaching social values and cultural awareness of Italy and Piacenza and the Italian language to immigrants through special land uses and urban spaces.	Software	Socio/ Economic
18- Designing ecological axes leading to the river with appropriate accessibilities.	Ecoware/ Hardware	Legal/ Political
19- Creating designed spaces on the river with a natural approach and the ability to build dialogue and face-to-face interaction with crowd-attracting land uses for groups and individuals.	Ecoware/ Hardware	Legal/ Political
20- Increasing environmental health by strengthening diverse plants and reducing the use of motor-based vehicles.	Ecoware	Legal/ Political
21- Developing the relationship between the production sector and the consumption sector in the direction of economic prosperity and increasing urban self-sufficiency.	Hardware	Legal/ Political
22- Increasing environmental efficiency with protection-based approaches in dealing with natural hazards as well as plant growth.	Ecoware	Legal/ Political
23- Creating spaces with multiple functions with maximum diversity of environment and land use.	Ecoware/ Hardware	Socio/ Economic
24- Creating a connection between the river and the city and strengthening the transportation system of the city by establishing a comprehensive tram network.	Hardware	Socio/ Economic

Source: Authors

Development in each part of the circuit leads to improvements in other parts and ultimately reinforces those areas systematically. All circuits eventually create an integrated system that integrates the development of all ecosystems. The function of the sides of each circuit is shown in the image below.

Figure 6 - The strategy of the ecosystem scale



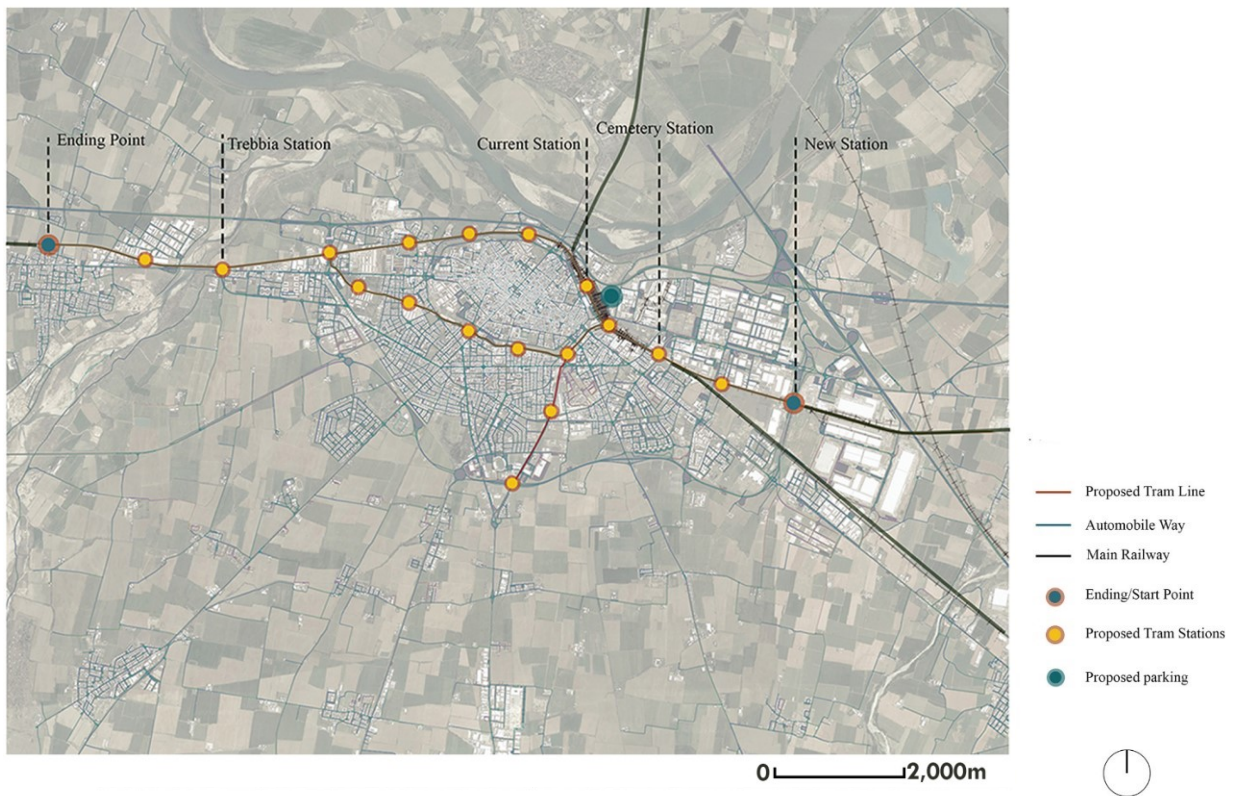
Source: Authors

Within each of the circuits, the internal flows of each ecosystem, which include economic, social, physical, and environmental flows and accessibilities, affect each other. Moreover, the external currents caused by the external circuits also affect the internal forces and lead to the strengthening of that part and finally turning each of the ecosystems into a pole. To strengthen these circuits, the role of accessibilities as a physical element that has important effects on economic costs and social circulations is undeniable. The complement of this model can be the tram system strategy which is explained below.

One of the topics of the urban economy is the direct proportion between the movement of people and the dynamics of the economy. On the other hand, the faster the movement speed, the faster the happening of interaction and its economic success. For this purpose, a tram line network is proposed from the side of the industrial area with

a new station, which not only improves the interaction between citizens of different layers but also leads to ecosystem connection in line with the goals and strategies mentioned. This network starts from the industrial area and a new station and passes through the Trebbia River by calming the traffic. In this route, there are the current location of the station, the cemetery, and several residential areas and suburban settlements that are connected to each other. This network has secondary sides that are built on old tracks. According to the urban scale of Piacenza, the movement of trams can be one tram in each direction for every hour. To collect traffic in the desired area, a large parking lot has been planned north of the current station (Luna Park location).

Figure 7 - Tram proposal



Source: Authors

The scale of the historical urban context

The main goal is the creation of a network consisting of circuits with back-and-forth flows of physical and virtual connection of the future urban projects of Piacenza along with cultural, historical, economic, and social hotspots with an emphasis on the green space approach and combined with an integrated bicycle system connected to a larger ecosystem network to increase social interactions.

The implementation strategy of the mentioned approaches is based on landmarks and future connected projects of the municipality and seeks to create an integrated and

circulating system to strengthen the project and new Physical interventions and connect the city to the river.

The closeness and impact that each project has on another project through its cultural and physical nature, leads to the overall strengthening of the projects. Moreover, the external forces and currents of the external ecosystems discussed in the previous model have an impact on strengthening new projects. In the next step, an integrated and reciprocal flow is formed and connected to all new projects and intervention points (green acupunctures and cultural-attractive acupunctures that have physical, social, aesthetic, cultural, economic, and sports dimensions). These streams have both a physical and a virtual approach to connecting projects.

Table 4 - Proposed approaches for historic district scale: part 1

Proposed Approaches	Hexagon Analysis Character	Social Integration Character
1- Development and connection of future municipal projects to each other to form a united physical network.	Hardware	Legal/ Political
2- Formation and development of a comprehensive bicycle network with the appropriate urban equipment and facilities with a green approach.	Hardware	Legal/ Political
3- Providing a variety of acupunctures with an emphasis on green space and biodiversity with a maximum variety of land uses.	Ecaware/ Hardware	Legal/ Political
4- Creating attractive land uses for the population with cultural diversity.	Hardware	Cultural/ Religion
5- Holding workshops and various training classes to create a culture of interaction	Software	Socio/ Economic
6- The use of collective and individual arts at the urban level of redesigned or newly designed spaces.	Software	Socio/ Economic
7- Emphasis on increasing the sense of place by using identity, historical, and heritage symbols.	Hardware	Socio/ Economic
8- Expansion of collective sports spaces.	Hardware	Socio/ Economic
9- Encouraging programs and multi-functional collective events from the municipality and independent institutions.	Software	Socio/ Economic
10- Creation of daily or temporary land uses consisting of diverse traditions and cultures.	Hardware	Cultural/ Religion
11- Establishing a monitoring and security system to monitor security and interactions.	Software	Legal/ Political
12- Using the potential of the university and students in designing spaces and new elements and integration programs.	Software	Socio/ Economic
13- Giving definitions to accessibilities to increase readability.	Hardware	Legal/ Political

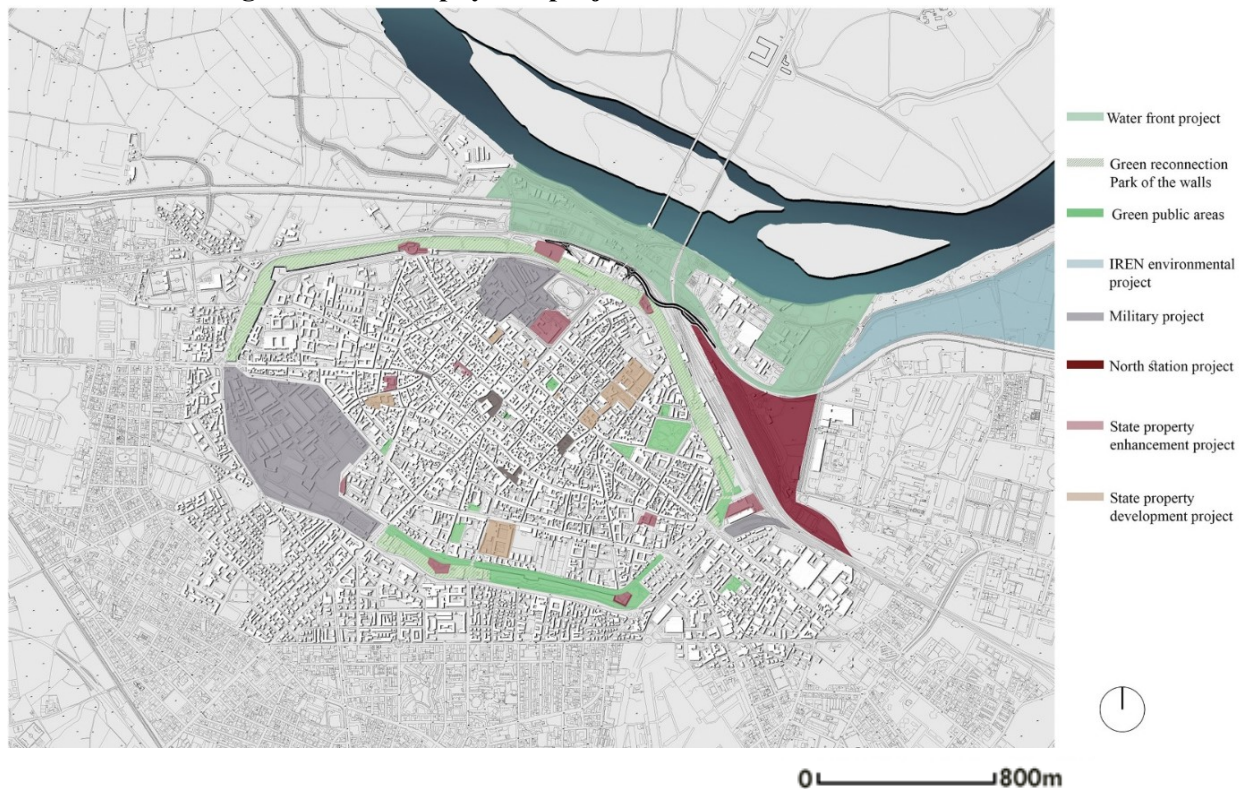
Proposed Approaches	Hexagon Analysis Character	Social Integration Character
14- Using the creativity, initiative, and ability of immigrants in programs and designs according to their qualifications.	Software	Socio/ Economic
15- Empowering immigrants from the economic aspects to find them employment in new temporary or permanent local uses based on the culture and customs of the first country with minimal investment.	Software	Socio/ Economic
16- Optimum combination of land uses with appropriate urban spaces designed with a green space approach.	Ecaware/ Hardware	Socio/ Economic
17- Using symbols and elements of architecture and design with an identity-based approach and increasing the sense of belonging and place.	Hardware	Cultural/ Religion
18- Creating breathing spaces and spaces to see and be seen to form urban dialogues.	Hardware	Cultural/ Religion
19- Attention to the design of appropriate spaces for children and attention to the second generation of immigrants to have a formation of a relationship between them and the children of the local population.	Software	Socio/ Economic
20- Establishing local products and products in the new settings of urban spaces to pay attention to the micro-economy and integrate it with the services and capabilities of immigrants.	Software	Socio/ Economic
21-Introducing the Italian culture to the immigrant people through elements, workshops, and virtual or tangible platforms.	Hardware	Cultural/ Religion
22- Changing land military use to population-attracting land uses	Hardware	Socio/ Economic
23- Creating religious and cultural land uses consistent with the culture of the country of origin of Muslims and other strata and monitoring them.	Hardware	Cultural/ Religion
24- Creating platforms to introduce the culture and type of communication with immigrants to the local community.	Hardware	Cultural/ Religion
25- Integrity of the proposed tram line with the physical context of the city	Hardware	Legal/ Political
26- Establishment of art, creativity and initiatives, events, and collective sports in designed spaces.	Software	Socio/ Economic
27- Giving field to independent groups with authority to establish supervised collective activities in urban spaces.	Software	Socio/ Economic
28- Monitoring the black market and illegal activities in urban spaces and designing urban spaces based on security indicators.	Software	Legal/ Political
29- Attention to the use of forms, colors, and aesthetic elements in the new design.	Hardware	Legal/ Political
30- Attention to human senses in designs and maximum attention to their combination.	Hardware	Legal/ Political

Source: Authors

SYNTHESIS OF PROPOSED STRATEGIES AND EXPECTED OUTCOME

One of the main conditions for the success of the strategy is the need to create physical accessibilities such as a bicycle network, which not only provides connectivity but also answers the need to move a large part of immigrants and local people along with the proposed tram system. It should be said that this project's view of the landscape is not only physical and environmental, but also has a social and economic view, and it sees urban landscapes as the result of economic and social forces that ultimately define the physical environment. As a result, to achieve the said interventions, it is the socio-economic currents that bring the desired landscapes closer to achieving the desired goal with administrative and political tools. The next model is a zoom-in of the previous strategy, which focuses on immigrant areas. In this model, the proposed flows from immigrants and local people in the formation and dynamics of urban spaces have been explained.

Figure 8 - Future physical projects of Piacenza SC: 1:8750

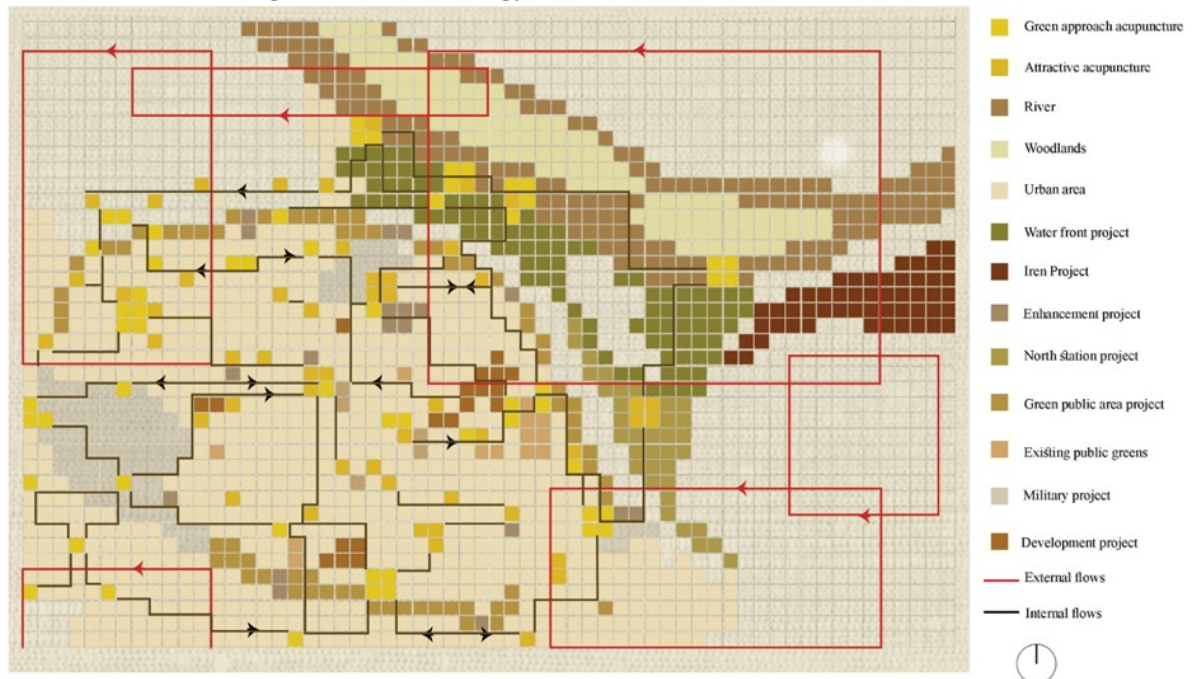


Source: Authors according to Municipality of Piacenza (2022)

As shown in figure 10, the two main currents are the immigrants and the receiving society, which, according to what was mentioned earlier, include the political and regulatory, cultural-religious, and socio-economic dimensions combined in desired urban spaces. The result is that they create spaces with maximum diversity of

functions. The more powerful these currents are, the more successful the desired spaces will be. As a result, the necessity of planning at higher scales and what was said earlier is evident here. These currents are combined with the ecosystem circuits of the previous scales and finally leave their effect on the external ecosystems and are affected by it.

Figure 9 - The strategy of the inner historic district



Source: Authors

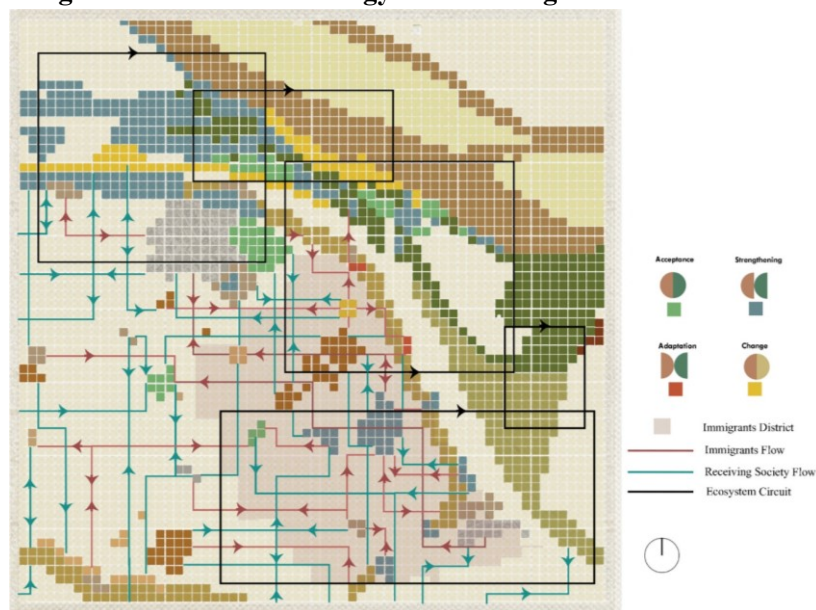
Although the role of Piacenza is weaker in terms of scale and political influence than cities like Milan and Bologna, due to its location in the main transportation axes, diverse population composition, and the existence of physical and social potentials, it can become a context in the long term to crystallize and influence informal policies on formal policies. One of the main reasons for considering the issue of immigrants in Italy as a ‘problem’ is the limited traction of policies in economic empowerment along with social acceptability. Although cultural processes and economic infrastructural programs have their impact on social structures in the long term, the challenges and direction of the meaning of ‘globalization’ provide a context for European governments to formulate more flexible policies to process the challenges.

To achieve these policies, it is necessary to establish prerequisites, including establishing interaction with monitoring between different strata of immigrants and different strata of the receiving society. It is also undeniable to create a self-productive system of economic-social circulation in the physical and environmental fields, to

increase empowerment in all the mentioned dimensions by allocating the initial budget and government, non-governmental, and private support programs.

It is obvious that in all the steps and processes of this project, different layers of people, government, private and non-governmental organizations, and in a word, all stakeholders should cooperate and coordinate their participation through supervisory bodies like a dynamic system to implement the programs of culturalization and dynamism of the economy in the physical context.

Figure 10 - Zoom-in strategy in the immigrant district



Source: Authors

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