

ACCADEMIA NAZIONALE DEI LINCEI
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UNIVERSITÀ DI TRENTO

Francesca Moraci

Mediterranea University of Reggio Calabria
Department of Architecture and Territory - DArTe

Maurizio Francesco Errigo

Sapienza University of Rome
Department of Planning, Design and Architecture Technology - PDTA

Dora Bellamacina

Mediterranea University of Reggio Calabria
Department of Architecture and Territory – DarTe

Celestina Fazia

Mediterranea University of Reggio Calabria
Department of Architecture and Territory - DArTe

Title: The Silk Road 5.0**The Hub I_S project of the Strait Area****Cities, territories, infrastructures and flows in the Asian and post-pandemic century.****Abstract**

The essay analyzes the relationships between cities, territories, infrastructures and material/intangible flows in the post-pandemic era dominated by Asia and China. In particular, the study proposes an innovative project with variable dimensions that has the focal point in the Strait, in the networks, in the ecosystem services also, that belongs to the South and to the Mediterranean area. Were analyzed also the Recovery Plan and a vision post target 2026 to understand the future programmatic scenarios, trends and exogenous dynamics.

From this analysis derives the awareness that we live and we will live in an era of great transformations and transitions. The relationship between land and sea is not lacking: the Mediterranean that unites and divides and a reflection on the effects of the revolution/regeneration, of the ecological and digital transition on cities, ports and on the mobility of goods and people. A necessary "destructive" innovation of the market. Our Hub I_S (Innovation South) project sets the conditions for making the Strait Area competitive and ready to face challenges.

Keywords: Innovative_HUB_; South/Mediterraneo; Silky Road; Transitions; Networks of Resilience.

1 | Transitions and connections

In the millennium in which we are, cities and territories, due to the effect that networks produce, experience the advantages of "connection" benefiting from flows and strategic positioning.

The mobility of goods and services and people, determines new conditions and draws a new cohesion between territories and economies. However, not all cities know how to seize the opportunities offered. Furthermore, the threat of pandemics makes it necessary to think about a post-Covid model of the city¹⁹.

In this model, the role of networks, mobility and public functions, the role of ecosystem services and the connected individual wealth in terms of natural capital, the new production systems, define future well-being values.

The idea of the future city will take shape in this changed picture. In particular, it is important to understand what strategies have to be implemented to relocate in a new and competitive terms in the path that the New European Bauhaus is implementing to respond as a cultural theory to the green deal. The global crisis requires a response that is global and a joint effort towards a single direction, that of the "3R's": Resilience/Revolution/Rebirth.

However, this approach must pass from a "revolution of thought into a cultured social community capable of expressing competence, vision and leadership" (Moraci, 2021).

The challenge, today, is called "Network". The challenge of today's networks and connections has been economically amplified by the so-called "Asian century", that is, a hegemony played mainly by Asia led by China and its political-commercial program "New Silk Road". We will analyze only some of the key points for the construction of our project *the city HUB of the Strait*.

2.1 | Demographic aspects and growth forecasts. The demographic GDP (Gross Domestic Product)

In the PNRR, the workforce and the aging of the population are two interrelated issues for national socio-economic policies and for the south, in particular. The theme of demography is not sufficient to give shape to a new trend dimension of a socio-economic type. It should be compared to the European and Italian decrease with a focus on Calabria and Sicily, in particular on Messina and Reggio Calabria, focus cities of the Strait metropolitan system area, which record an important demographic decrease. Reggio in the last ten years has lost just over 13.500 inhabitants, while Messina has lost over 20.000 inhabitants. The greatest decrease affects the 16/64 age group, especially in Reggio Calabria.

The Italian Government has allocated 82 billion of the PNRR's resources to the South and 40% of the resources of the Recovery Plan was committed to the recovery of convergence between the North and South of the country. However, they will not be sufficient if not interrelated with other funds in structural terms. The issue of the Essential Levels of Performance still not reformed but anchored to historical expenditure, remains in the background, contravening the principles of Article 117 of the Constitution.

In face of the high unemployment and in particular the female unemployment, the measurement of growth only with GDP may not be exhaustive. What is the development in propulsive terms today? What are the values to report in terms of next generation? We are talking about transitions precisely because the impact of the new green, circular economy will cause a necessary destructive innovation that must be calmed through the transition and its costs. The activity of legal regulation and ecosystem services, such as the reform of knowledge and new skills, must be constructed and timed.

Much of the growth of urban populations will involve absorption of flows from Asia and Africa, especially from China, India and Nigeria where fertility rates remain very high. In the near future, the African population is expected to double and exceed two billion in less than 30 years. Cities will continue to grow (Fig. 1).

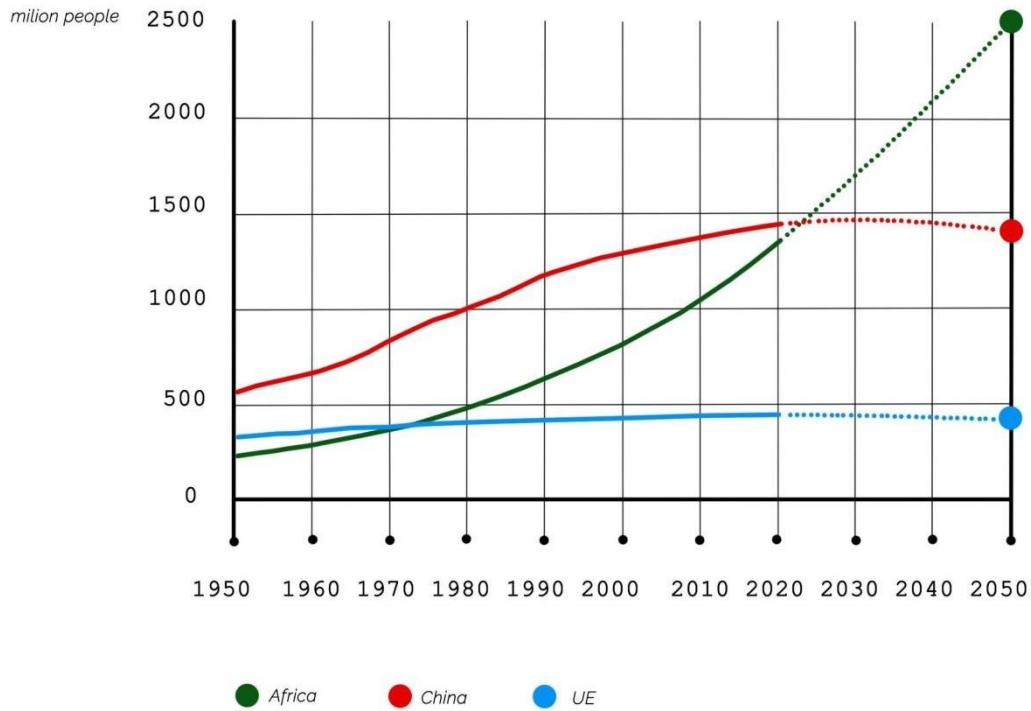


Figure 1 | Population growth
 African, Chinese and European populations compared (1950-2050)
 Source: EuroStat, ISTAT.

As regards GDP and per capita income, the African continent is characterized by heterogeneous conditions, the average data indicates that the average African income is equal to 10% of the European one. From these considerations it clearly emerges how much it is necessary today to be fully aware that Europe, the Mediterranean and Africa are increasingly linked: a single large “vertical macro-continent” which must build its future with a unitary strategy¹ (Fig 2).

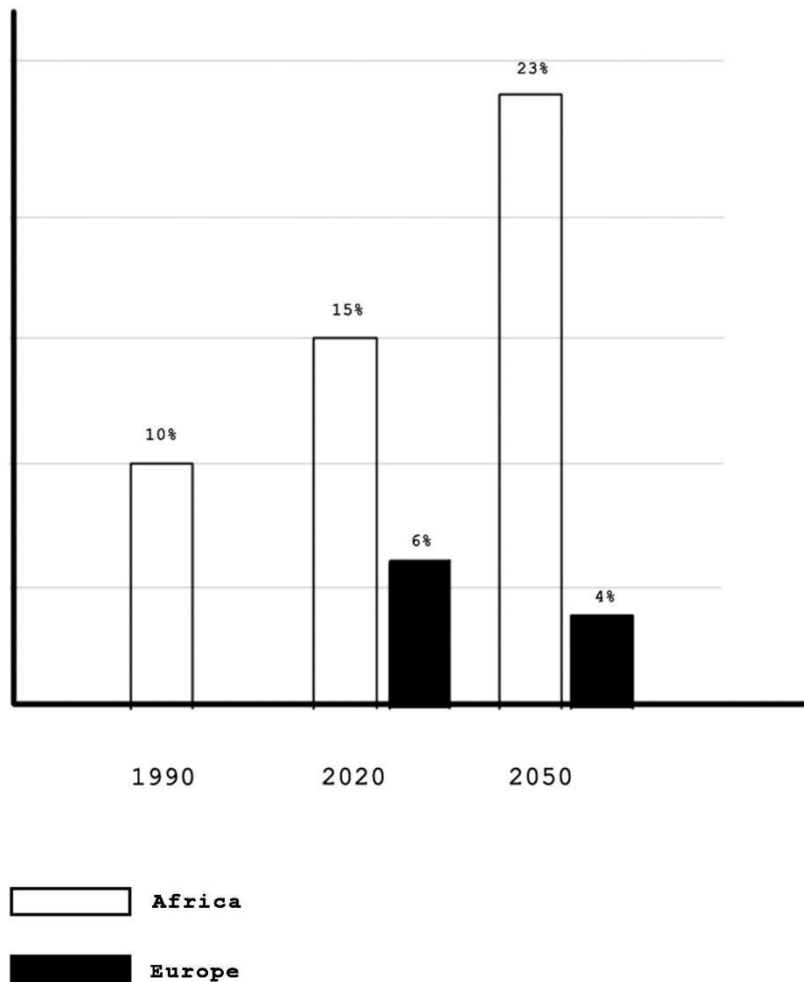
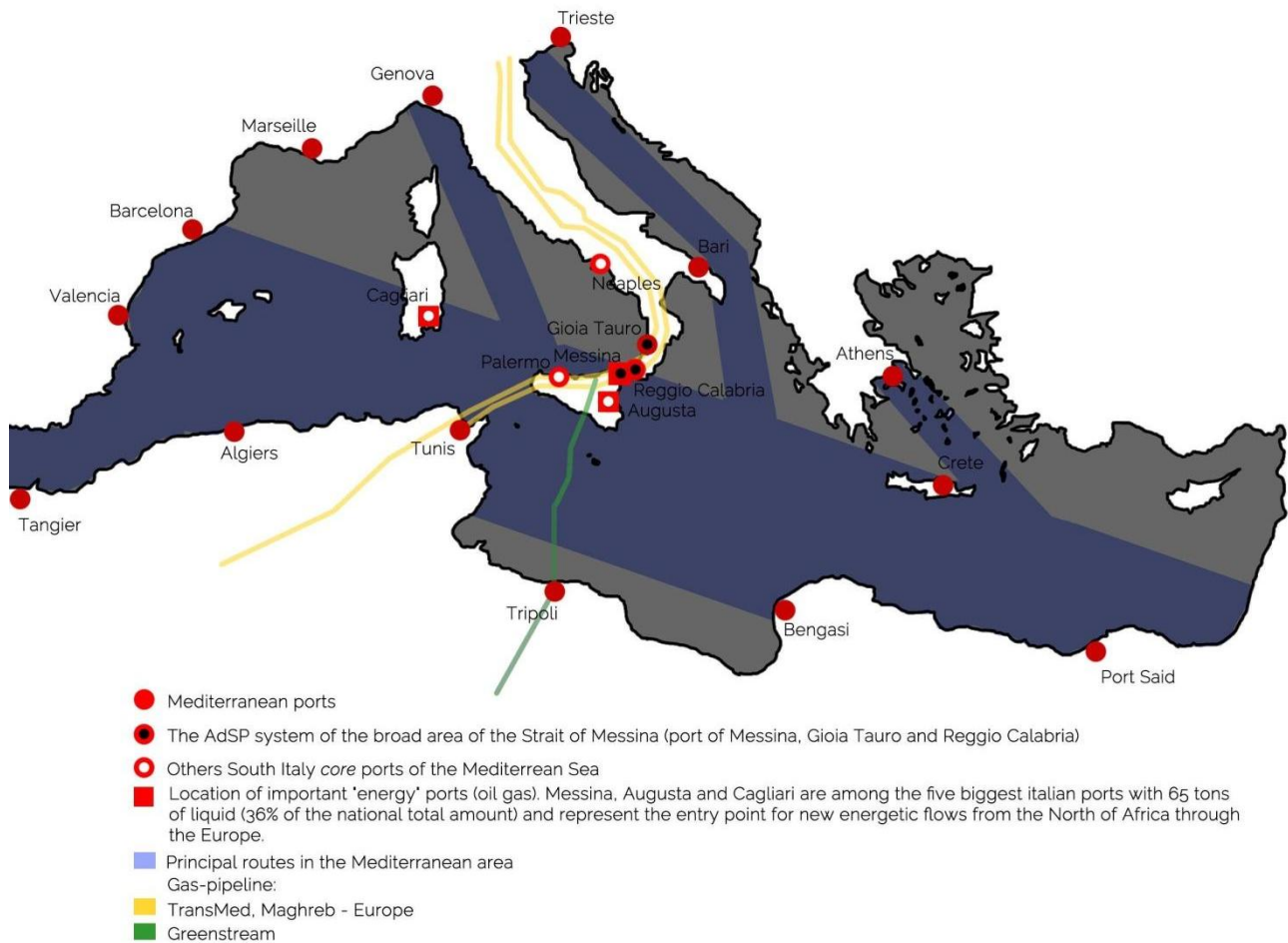


Figure 2 | European and African population in Europe
 "Horizon 2050: Africa's development prospects"
 Source: Institute for International Political Studies

2.2 | Tendential and programmatic assets, the response with cities and large ports

The major axes of the Northern European system, albeit strengthened by the new polar sections, are in competition with the new trend axes moving south in the Mediterranean area (from the Gibraltar axis, the Baltic Sea-Piraeus-Suez axis). Area of interest in the international chessboard (Fig.3). They are the ports and the hub cities that will play an active role as a "crossroads of new opportunities", ports in the Asian century².

Nothern Range



*Figure 3 / Maritime connections
 Main flows in the Mediterranean basin
 Source: SRM 2021 data reworked by the research group*

The port infrastructures represent the headquarters of the main transport, communication and connection carriers. They represent the key to Southern Italy to dialogue with a globalizing organization in the context of a vision of European mobility. Genoa, Trieste, and in the South, Taranto and the strategic platform of the Strait (which may include the port of Gioia Tauro as well as the port system of the Strait) can represent territorial links with a strong strategic potential, capable of activating a map of sites bearers of economic and social opportunities and interest, with urban networks and nodes. The maps depict the intensification of Mediterranean routes and the

partial shift of interests from Northern Europe to the heart of the Mare Nostrum³. One of the practices proposed so far is the example of the system project for the South, with the aim of relaunching the ZES - Special Economic Zones - and the South and consequently the entire country⁴ (Fig.4).

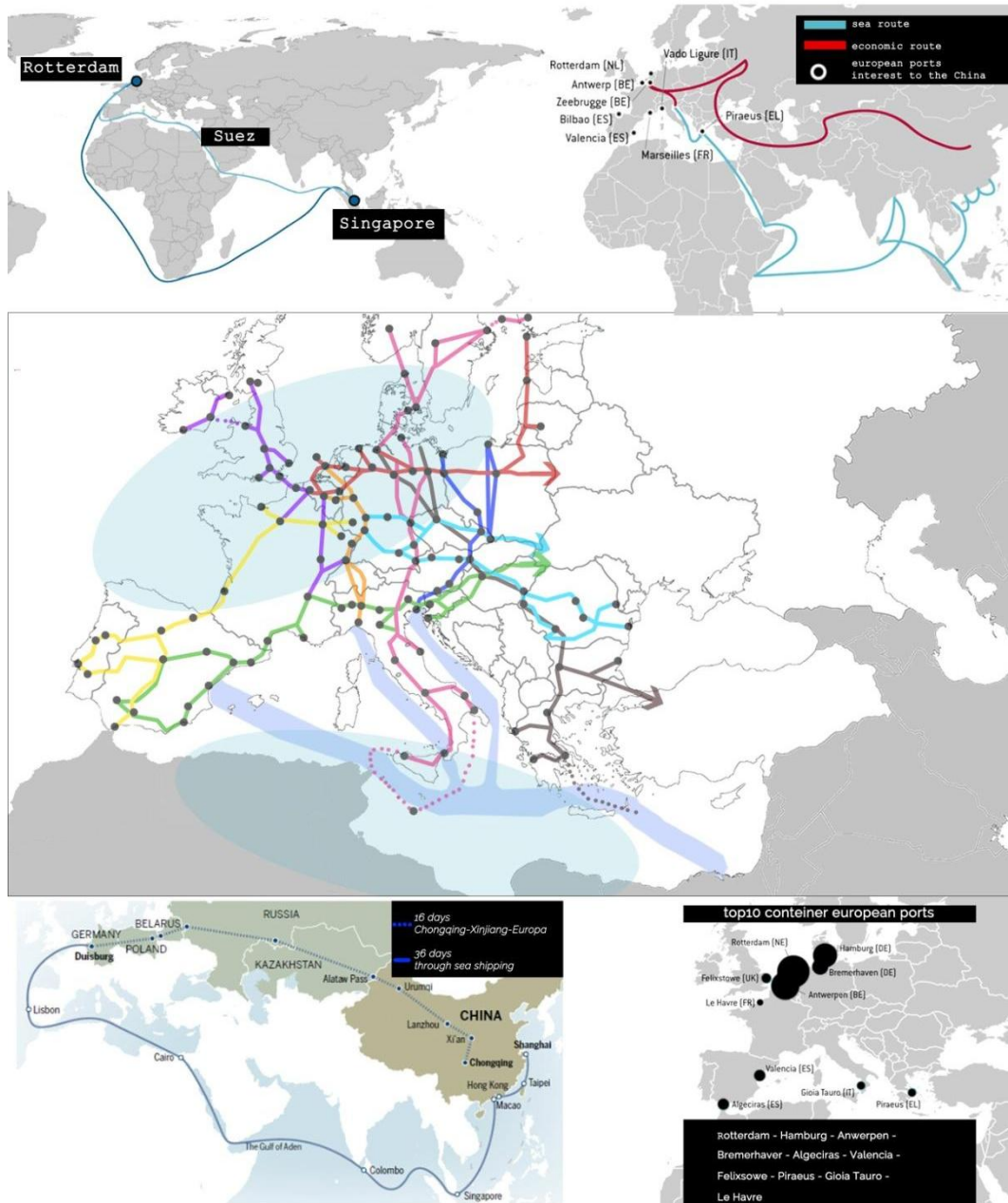


Figure 4 | Sea and land connections
 Main corridors and routes in the Mediterranean basin Source: data SRM 2021, gov.it, Ministry of Commerce, General Administration of Customs, YuXinOu Rail Logistics Company, High North News, Bruegel.org

3.1 | The new paradigms and visions of a “transition infrastructure”. The new Silk Road and the expected benefits.

Which territories and nodes does the Silk Road intercept? The terrestrial route is represented by three corridors, the "north", the "central" and the "south"; the maritime corridor from two. These major axes include over 120 countries (Fig. 5).

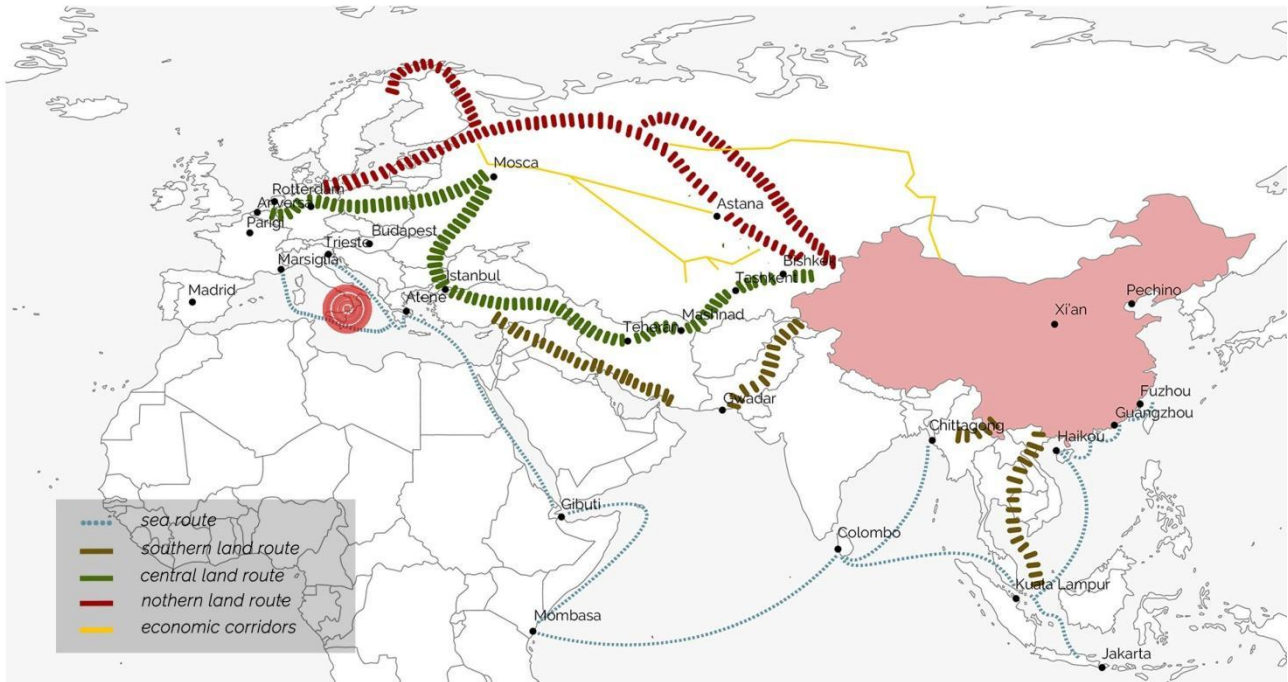


Figure 5 | Programmatic structure of the New Silk Road
 Land routes, sea routes, economic corridors
 Source: graphical reworking of the research group's data

The north axis intercepts the cities that from China crosses the Eurasian countries until reaching northern Europe. The central one, Kashgar in China, Islamabad and Gwadar in Pakistan.

The infrastructures affected by the land routes, locations of the rest stops, will benefit from an improvement in terms of quality and quantity; the railway lines chosen with high-speed systems will be strengthened and new road and rail networks will be planned. The role of Italy in this strategic project is mainly defined by the ability of ports to intercept flows. They, in the core area of the Mediterranean, would be identified as important commercial hubs.

The ports of southern Italy, which insist on the Messina Strait area are to be considered as the "southern" vertex of the triangle of ports composed together with the ports of Genoa and Trieste, the only ports included in the Silk Road.

Sicily has three Port System Authorities: the AdSP of the western Sicilian sea, consisting of the ports of Palermo, Termini Imerese, Trapani and Porto Empedocle; the AdSP of the eastern Sicilian sea (ports of Augusta and Catania); the AdSP of the Strait (ports of Messina, Milazzo and Tremestieri, Reggio Calabria and Villa San Giovanni) recently established. The system of the Strait Area includes two metropolitan cities, two port system authorities, two ZES linked to the related port systems. Furthermore, this floating strategic plate fits perfectly into a territorial continuum with the other Sicilian metropolitan cities (Catania and Palermo), creating the largest system of metropolitan cities in the country. Thus was born our proposal for a Hub as a challenge for a South that must recover (and overcome) a marginal role that the post unitary model has given it⁵.

4. 1 | Polygon I_S in the "new 5.0 Silk Road". Hub I_S in the new economies is the "challenge" for excellence

Defining the role of Italy and of the South in the new economies and in the dimension of global changes in the Euro-Mediterranean becomes the "challenge" for excellence. The challenge is our project, **Hub I_S** (fig. 6).

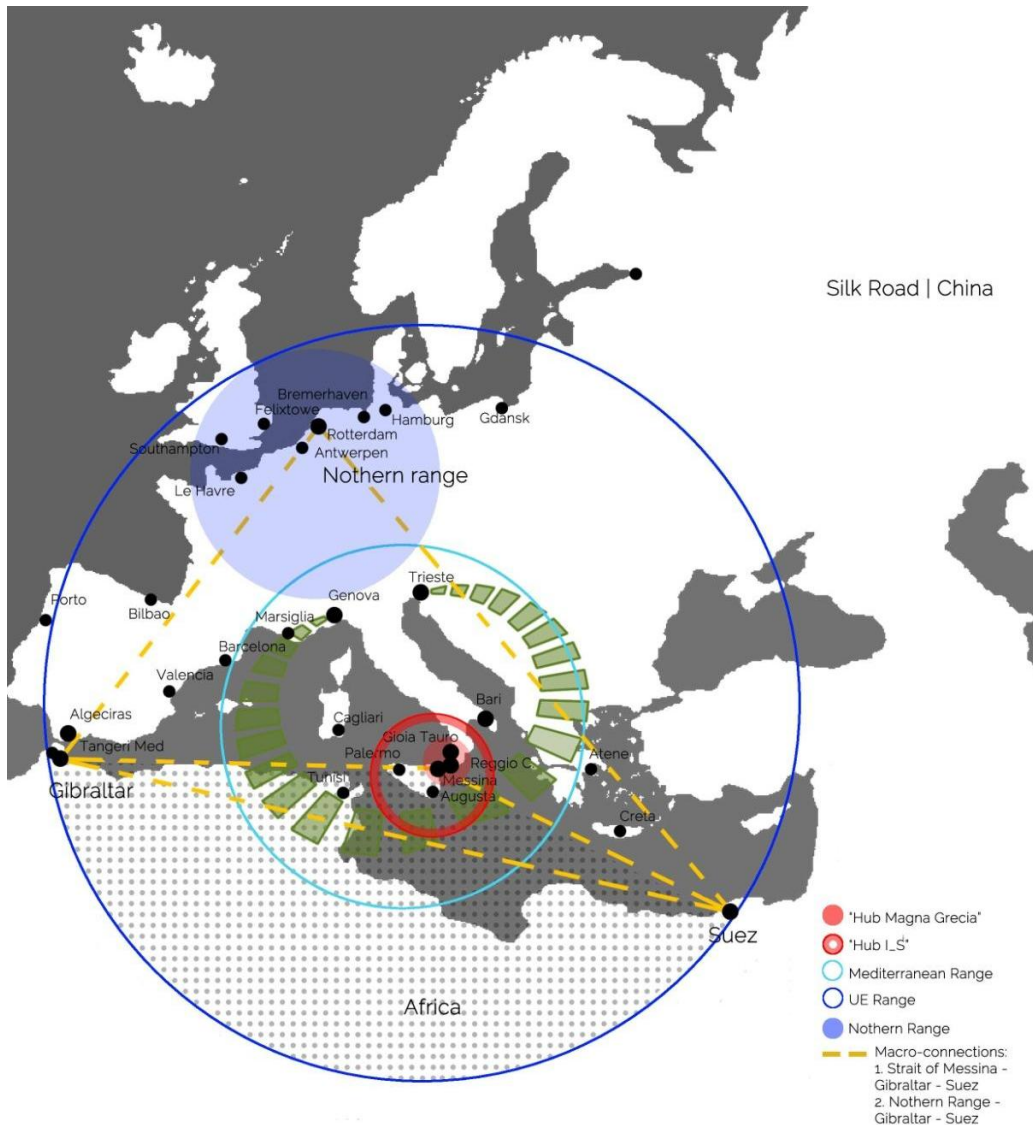


Figure 6 | Strategic scenario polygons

Doors, ports and cities of the Mediterranean. The role of the I_S HUB in the new material and immaterial relationships of the "arches" of the Mediterranean.

Source: elaboration of the research group - ideogrammatic scheme of the strategic hub plan.

First of all, the shape and relationships that the polygon **I_S** (where **I** stands for Innovation and **S** for Stretto, Strategic and South), which we will call Strategic Hub, assumes in the context of the new "Silk Road 5.0", is configured as an alternative or a complementary scenario to the commercial Silk Road. For these considerations we have taken into account all the dynamics of the scenario in the post-Covid19 era and ecological transition, extrapolating from these the addresses to configure the "geometry" and the characteristics of the I_S polygon:

- it is the site of flows: ports, infrastructures, cities and logistics in Italy. The idea is to build a strategic southern hub that represents a territorial project in line with the commitment of the ecological and digital transition. The **I_S hub** has its focal point in the Strait, the vertex of the Trieste-Venice and Genoa-Marseille triangle. But also the top of the triangle with Suez and Gibraltar and the whole African Mediterranean arc (Fig. 7).

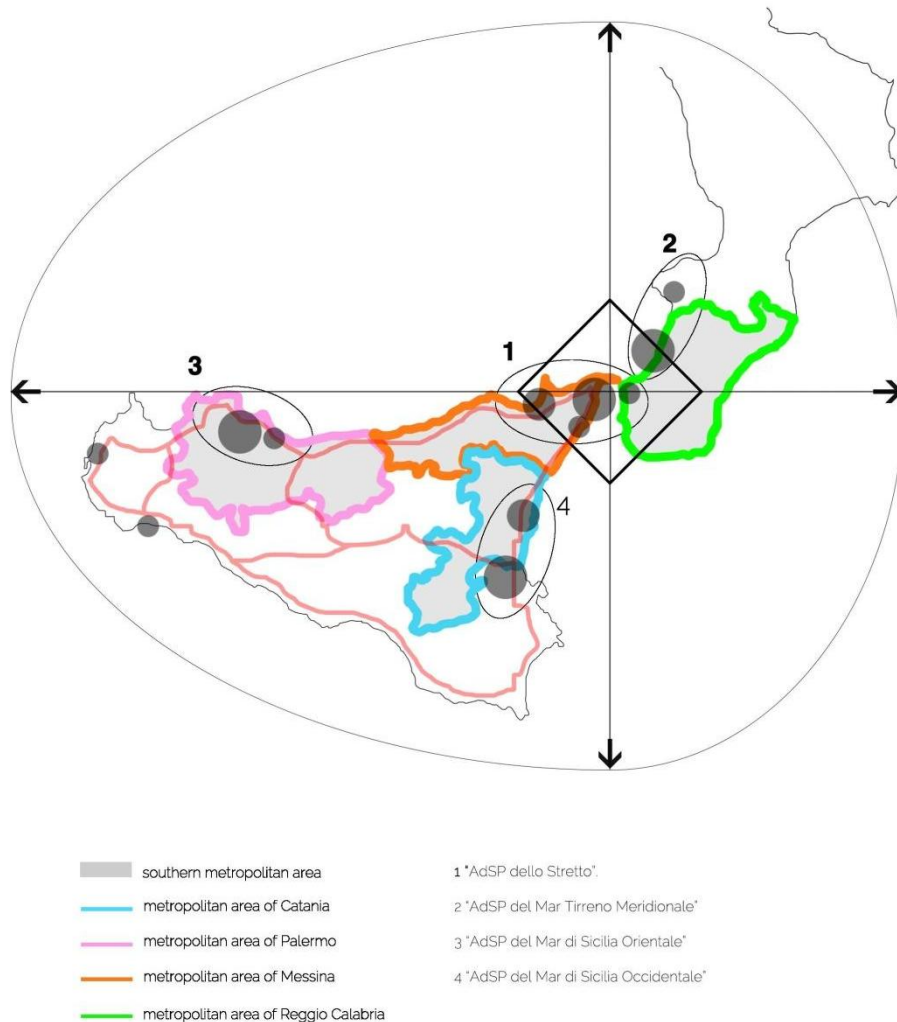


Figure 7 | HUB I_S of the Strait Area
 The southern metro system
 Source: graphic elaboration of the research group

The Strait of Messina could be a technological and cloud port unit like that of Suez, for new ships⁶, to be accredited and upgraded in the ranking; The Hub also as the site of the port system authority represents the technological "doors/ports" of the Mediterranean, leaving Gibraltar with another role. It can be configured as the Hub of the new Magna Graecia (alternative pole to the system is the interface of TangerMed and Gibraltar) confirming the role of Transshipment⁷ in Gioia Tauro.

- It defines the role of flows (material, immaterial, humans, migratory) by reorganizing them in an urban dimension profoundly marked by calamities, events, social and urban changes. But also of welcome, of solidarity, of international partnership services. Cities and southern Italy seek a coherent characterization in terms of real urban and territorial progress. Within the **I_S Hub**, it will be essential to define the different roles - by sector and type of participation in the network of flows - of the cities and those that instead assume the character of a Node, as specified below. The whole network of cities in the Mediterranean will be involved.

- Identifies the Node-Cities in the flows, those that, due to structural conditions of position, due to services offered/lack of welfare, due to structural vulnerability, due to functional to the polygon and selects the answers to be given both of a proactive nature towards strategies, and preventive (resilience) in the management of issues relating to the environment and disasters. It is evident that in the phenomenological and spatial interconnection of the macro and micro local

dimension, "to which reference is made, and of the green oriented" urban economy, now at the basis of the NGUE .., not only do the design paradigms change, but must change .. the policies of development and restart⁸.

- Identify the post-Covid19 effects on cities. What will be the response of the urban environment and what economic adjustments will be needed. The cities of the South must aim for "high" objectives, must rediscover and enhance the unexpressed potential and be competitive. A competitiveness of quality, of biodiversity, not predatory, but sustainable and visionary. In short, they must be in the Medway "flow", which also intercepts the "Silk Road 5.0". A revised, articulated and "Mediterraneanized" silk road.

- Identify planning guidelines to make cities resilient and prepared to manage environmental and social challenges. The emergency from Covid19, that marks the new century, has caught all the cities unprepared, but the block of activities has nevertheless produced a distortion of the urban layout. In a few months, the habits of the inhabitants have changed and consequently, the organizations of the cities that have to respond to new demands for transformation.

- Proximity accessibility. In the **Hub I_S** model, everything must work in an integrated and zero-emission manner. Furthermore, the areas and points of historical, cultural and landscape interest must be usable by organizing an offer of hospitality and commercial support services around the cultural heritage.

- It defines the strategies to be implemented for the construction of a technological and social environment suitable for development. Getting online can mean helping the digitalization of the tourism offer. The digital transitino is essential to 5G. It will also be necessary to understand the costs of the transition and the legal response to innovation widely understood not yet regulated.

- The relationship between the seas of proximity. The Black Sea and the Mediterranean Sea (a sea made up of many seas) have considerable unexpressed potential. Over the next ten years they will handle over 80 million containers, with Italy seeing its container traffic estimated at around 10 million.

4.2 | Hub I_S in the Mediterranean and relations with the Silk Road 5.0

The aim of the proposal is to define the role of Italy and the South in the new economies and in the dimension of global changes in the Euro-Mediterranean area. The strait is very crucial. The cities of Reggio Calabria and Messina must reorganize themselves in a metropolitan "driving" dimension that looks to the Mediterranean and to the country. Italy is currently self-reducing its role in international strategies, thus favoring the rise of Turkey, Russia and China in managing the flows of the Silk Road. The Mediterranean is the Mare Nostrum⁹, it is an extraordinary strategic theater and has reached exceptional levels with reference to activities related to trade. The Turkish expansion - which began through growing investments in the port infrastructure sector - then saw the presence of the soft power strategy already used by China, which has included the Mediterranean in the maritime silk road.

The debut took place in 2013 when China announced the pharaonic project with the aim of connecting Asia to Africa and to Europe by sea and by land, increasing trade exchanges between continents and strengthening its influence. China had already started important infrastructure projects in 2008 and bought two terminals of the Greek port of Piraeus with a usufruct of 35 years. But there are other actions that allow us to glimpse precise strategic designs: the construction of the railway and motorway link between Bar(port of Montenegro), Serbia and the motorway axis connected to the "pan-European corridors" of the TEN-T network.

5 | What responses do we expect *Towards the Society 5.0.*

The keywords for the near future are: Innovation and social value of science. Science, culture and innovation must be the cornerstones of the development of the City_ HUB-Node in flows and Cloud.

It is necessary to take advantage of the opportunities offered by the "reconstruction" that the Recovery offers, but in structural terms and in terms of the quality of the investments on the plots already described. There is the risk of a "recovery mutilated by approximation"¹⁰.

Let's make a reflection in this regard on ports. Approximately 855 million euros are allocated for port facilities in the north and only 255 million for those in the south, the spirit of an infrastructural equalization for the south is still a long way off. Are we in line with the EU Mission "Climate Neutral and Smart Cities"? The role of Italy and the South in the Silk Road is currently marginal. It can strengthen it in what we will call the Silk Road 5.0 in 4 steps.

Point 1 | The "geographically" less lucky cities, must make a further effort compared to those in the north that start from more favorable conditions, must be able to measure themselves against national scenarios and strategies, overcoming the difficulties that hinder development.

Point 2 | Cities must stay in the flows and must actively participate by setting in motion the privileged "sites" of the flows. A technological and social environment suitable for the development of the city will be built with the reorganization of innovative services, digital flow cities, activating urban inclusion policies and countering the depopulation of extra-urban areas.

Point 3 | We need to rethink the strategic and catalytic role of the nerve centers of cities linked to flows. For example, the railway station is also identified as an important centrality. Railway station lives offering spaces essentially linked to the smoothing of arrivals and departures of a multitude of users; this logistic function allows many opportunities to optimize the use of time, to concentrate activities and functions.

Point 4 | Time/space ratio, optimization. The role of flows, in an urban dimension profoundly marked by calamities, events, social and urban changes is not limited to a simple reorganization of systems with respect to their range of action. In Paris, with the "La Ville du quart d'heure"¹¹ project, the "temporal" distances needed to reach offices, schools, supermarkets and public parks have been reduced (15 minutes).

From these premises was born the idea to think of a MedWay, with southern traction, in relation to the Silk Road and **Hub I_S**. A complex, ecological, even immaterial infrastructure, strategic for development in the 5.0 dimension and new well-being by applying innovation to production systems.

6 | Towards a New Way... in the Mediterranean

If the growth of the north/south gap of the country is the result of policies implemented in the last twenty years, of logics and strategies anchored more to the emergency than to planning; logics that contrast the real and paradigmatic visions of plan and planning, of the cities and ports of the Mediterranean. For all these reasons, the South obviously missed the phase of planning and then building a "territorial intelligence" that would respond to the organization of the country system despite the port reform and the "central" role of cities. Instead, it embarked on a collective retreat based on the implementation of actions and dynamics (and even projects) disconnected from a clear strategic vision and shared objectives (Moraci, 2021). Thus the country's gap has widened and a

"new southern question" has arisen.

The gap has configured, once again, a multi-speed Italy. The path we have taken is a summary of the results of research started some time ago, by the research group of LabStUTEp. On this occasion of multidisciplinary reflection on the paths of the Mediterranean, offered by Medways, we have chosen to propose a "capsule" of the project. The idea of the city "Innovative Hub_Area of the Strait" must therefore be contextualized in the more complex context of the "mutual contamination" that the Mediterranean offers. The path, therefore, will continue developing and further characterizing the Hub I_S, with all the specific features of the strategic plan. A mood of ideas and development policy for a south, to overcome the gaps that characterize it, also following the recent EU address as an alternative to the New Silk Road. Ours is an achievable vision.

The strategic area generating the Strait of Messina, an urban and multifunctional infrastructural node, but also a crossroads of cultures (that of Magna Graecia, Arabic, Spanish ...) of languages, traditions, navigators, myths (Scilla and Cariddi), can produce conditions of a new competitiveness made up of several directions within which different elements (ecosystem services) are aligned: water (the Mediterranean sea), fire (of volcanoes and the sun), light (special phenomena of refraction and specificity of the Strait of *Fata Morgana* and of the *Lupa*) and nature (coastal, hilly and piedmont landscape).

We need to lay the foundations for a series of activities "reinforcing" the identities and preconditions of places that can determine change in the future (Moraci 2021). The Hub represents Africa's gateway to Europe and the interface with Suez, a strong and non-symbolic element. With the Hub I_S project we lay the foundations and strategic conditions for an economic recovery, a circular economy linked to the evolution and revolution that the EU New Generation organizes in a strategic but not exhaustive framework (Moraci, 2021). The new innovative plots, through the ecological and digital transition to which we are called to respond, indicate a path consistent with the missions of our project.

Notes

¹ Fassino P., "Africa, Mediterraneo, Europa: un futuro comune", in Cespi (Centro Studi di Politica Internazionale), del 28 Marzo 2019, published on <https://www.cespi.it/it/eventi-attualita/editoriale/africa-mediterraneo-europa-un-futuro-comune>

² Parag Khanna, "Il secolo Asiatico", Fazi ed.2019

³ Parag Khanna, "Connetography-Le mappe del futuro ordine mondiale" Fazi ed.2016

⁴ Incalza E., 2021, "Perché il Mediterraneo è sempre meno Mare Nostrum", il Quotidiano del Sud, 8th June

⁵ See the data of the 32nd Eurispes report on "muggings" in the South

⁶ Moraci F., 2013, Conclusion: joint governance across the strait "in Strategic Plan Study of Policy Measures for good governance at European level of the Strait of Messina. Interreg IVC – Nostra network of strait, Province of Reggio Calabria, European Union.

⁷ Please refer to the activity of participatory urban planning laboratories "Urban Archipelagos" that operate in the Calabrian territory as the third mission and didactic activity of the urban planning laboratory (Prof. F. Moraci).

⁸ See the essays: Moraci F., 2021, "Sud missione impossibile?" in *Sud & Futuri Magazine*; Moraci F., 2020, "Territorio e infrastrutture resilienti" *Relazione in Convegno online Opere pubbliche e territorio: l'importanza dei sistemi di monitoraggio e della loro manutenzione, 25 maggio 2020, CNI, Consiglio Nazionale Ingegneri*; Moraci F., 2021, "Coesione territoriale motore di Sviluppo", in UNPNRR nato per il Sud ma...; a cura di S. Siviero e G. Mollica, DIGIT -Media srl; Moraci F., 2021, "Ripensare alla città, al territorio, alle infrastrutture, al sud e al Futuro. Dalla dimensione globale a quella locale", in "Messina: Libro bianco.. 25 anni dopo", a cura di Caristi G. e Ruggeri G. Lions International distretto 108 Yb.Plumelia ed.

⁹ Incalza E., "Perché il Mediterraneo è sempre meno Mare Nostrum", il Quotidiano del Sud, 8th June 2021.

¹⁰ Incalza E., "Corriamo il rischio che la ripresa venga mutilata dall'approssimazione", Il quotidiano del Sud, 1st June 2021.

¹¹ Maucione L., in: <https://www.ninjamarketing.it/2020/07/20/smart-city-citta-in-15-minuti/>

Attributions. Although the research is the result of the work carried out jointly by all the authors, the drafting of the essay is to be referred to each of them in a different way, although many references and the setting of the project are attributed to Francesca Moraci: the Abstract by F. Moraci and Celestina Fazia; §1 by F. Moraci and C. Fazia; § 2.1 by Maurizio Francesco Errigo and §2.2 by C. Fazia; §3.1 and §3.2 by F. Moraci and Dora Bellamacina; § 4.1 by F. Moraci and § 4.2 by C. Fazia; §5 and §6 by F. Moraci, C. Fazia and M.F. Errigo. D. Bellamacina oversaw the graphics developed by the research group.