WHITE PAPER

DesignTech for future

A Design Force to shape the post Covid-19 world

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INTRODUCTION

Curated by **DesignTech Hub**

From Milan, from the world of design and architecture in collaboration with manufacturing and real estate, as DesignTech Hub we chose to initiate a debate over how **design, together with technology**, can play a fundamental role in **tracing the path from "before" to "after" Covid-19**.

In these months of *lockdown* that have challenged the traditional standard of habitat, **we have brought together some of the most important players in the sector** to give society a policy document for a new start, suggesting new guidelines for social life, new models for the spaces we live in - the cities, connections and concrete inspirations for the development of new live objects that will define the habitat of tomorrow.

With the pandemic all critical issues and limits of the city have come to surface, sometimes in dramatic ways. Infrastructures, architectures, environments and lifestyles were instructed by obsolete models. We believe this is the right historical moment **to draw the image of the new world we want to live in and take care.**

In some ways it is like the virus has "pulled the plug" of the old world, that now has the chance to start over with the **"startup" of a brand-new world.**

In this spirit we have conceived this **White Paper**. It speaks to the institutions and to the market participants with the objective of calling attention to the importance of planning, investing in research and activating dynamics of open innovation even in this area. It highlights the social, economic and environmental impact of innovative and sustainable measures that put humans and the environment at their center.

The paper **gathers contributions from a Design Force made of national and international architectural and design firms, together with companies and professionals spacing from the hospitality to education and health care business**. It features how the project, along with technological innovation, can allow us to overcome the health care crisis in the short term and improve our daily living and the economical rebirth in the medium and long term.

A challenge that has been accepted and that promises to establish a steady dialogue open to institutions, businesses, real estate and construction. Aiming to clearly identify project themes to work with and to solve, to build a "new reality" and consequently the different spaces where daily life will happen.

PREMISE AND REFERENCE FRAMEWORK

Curated by **PwC Italy I Consumer Markets**

Covid-19 pushed businesses and individuals to tackle one of the most complex challenges humankind had ever faced. What used to look like an era of unlimited possibilities, now showed its weaknesses and dangerous perspectives.
Coming to terms with human frailty is incredibly hard in a world that had us accustomed to unlimited possibilities.

Social distancing and its economic implications force us to define a **wide range of new and cutting-edge solutions** that will allow us to streamline the impact on different product sectors, as they need to react to outside forces of different nature and intensity.

This is the right time to better define the outlines of the world we want to redesign and to bring focus to a new plan for the country, that will allow businesses and freelancers to reconfigure their ability to be competitive.

The scenario brought to light by this pandemic needs to rely on “brains” to find an exit point, with a strong regard for an empirical approach to situations never experienced before. This future vision needs to include different cultural codes that will allow to draw the future of the country by better remodeling habits and lifestyles. This will allow us to take sociological networks back into our hands even in a highly technological scenario, while still respecting the high independence between different groups that coexist in our society.

The new business models will have to continue developing, even through this emergency, in the key of sustainability and circular economy. They will have to trace a path of economic growth that will account for the experience acquired so far, and to redesign production and distribution models close to their market of reference. Supply chains will need to have smaller influence reach as the tertiary sector will develop aggressively and will be much more complicated and negatively affected by strong waves of public opinion.

The goal of this paper is to stimulate the public and private institutions to reflect and begin a **collective and pluralistic journey towards a quick and synergic transformation**. With a spirit of growing integration, outlining a project for the future of Italy could then become a translatable model for the world, focusing on the role of **design as the main character of this phase of building** (rather than rebuilding).

Design and technology will then have the task of representing the open innovation framework pillars and to be the connecting elements between vision, inspiration and realization.

In conclusion, transforming the current crisis into a grand new beginning for humanity is the ambitious goal of the unique working group, who created this document. A transformation that will showcase the famous Italian culture of planning and enhancing it with an important function of innovation.

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EXECUTIVE SUMMARY

Curated by **PPAN communication and networking for the built**

PPAN's team, led by Paola Pierotti and Andrea Nonni, is media partner of the initiative and coordinator of the White Paper content.

From real estate to education, from residential to office space (even in the specific variation of the banking world), from health centers to restaurants, from the retail world to the hospitality one, focusing on mobility, social innovation and supply chain - these are the 13 themes that the experts have focused on.

Joining the never-ending evolutionary journey of real estate, from the task force's White Paper it emerges that "buildings and urban spaces will not be forever". Thus, the buildings' life cycle needs to be rethought, making mindful choices of materials and building components in respect of the environment and in relation to their possible reuse. The construction system needs to be redesigned and the discussion on the need for an option of assembling components, like in the automobile and aeronautical world, needs to be pushed forward.

We need to learn to reuse components, and also the buildings themselves, converting no longer used tourist/hospitality complexes, for example, into living or co-living themed spaces catered to a specific target of users. Even the sharing economy, that has momentarily stalled, will then regain its strength in the medium term.

Focusing on the environment, ecology and "sustainable and biophilic planning" is imperative, with the intention to reach parameters that will give a real contribution to **"decarbonizing the existing real estate portfolio"**. Not to be put in second place is the benefit of accessible open spaces, green spaces that may be currently residual and which should be colonized to transform dwellings into "open ecosystems".

In any category "the big challenge of urban regenerations will be to marry the need for density and efficiency with the need to create spaces and **environments that are safe from a health standpoint"**. Generally speaking, the concept of care will evolve into the concept of taking care, paying attention to all those parameters that affect our wellbeing - air and water quality, thermal, lighting and sound comfort, nutrition.
With regards to health and healthcare, the idea of a large-scale design is desirable; this idea pictures a new model of healthcare spread out and territorial, that will enter people's homes.

Whatever the size of the project, "we need to continue to think in terms of circular economy, incentivizing the supply of eco compatible or completely recyclable substances and materials together with good practices of proper disposal through general financial measures, like for example tax credit". In the food industry specifically, the challenge is open both to the big players in the hospitality

business but also to quality ideas and emerging formats - passion, determination and preparation are the key terms to ride the opportunity and become the leader of a true renovation. Education, training and communication will be vital.

Design, technology but also managerial culture. Especially when talking about office spaces or health care facilities, a “change in management” becomes vital to be able to tend to the physical space, keeping in mind behaviors and technological equipment.

Experts have expressed the concern of multiple commentators that technology may be the weakest link in the Italian case, especially the inconsistency in connection among the territory. So, we hope that this historical moment can commend a strong push for change on the current situation. For these facilities, like in health care, the need for urgent interventions is essential, with a strong participation of the public.

Work, free time, shopping and sport will change significantly in substance and form, even after the pandemic is over. The idea of exploring the concept of experience came from here. In regard to retail, the focus will not be on models of “pull and entertainment” anymore but on the product experience instead. This approach will probably accelerate the downfall of malls and shopping centers, already apparent in the last years, to the advantage of stand-alone stores and stores along city streets. Generally speaking, the integration between e-commerce and brick and mortar stores will be fundamental for the survival of the latter ones.

Luxury will set the example for both retail (where we expect to see shopping by appointment) and hospitality business.
“Hotels will surely take inspiration from the high luxury sector, paying special attention to privacy and space dedicated to each guest”. In general, “desires and apprehensions will have to be anticipated, using the pandemic as an opportunity for innovation” and for this reason an active dialog between client and designer will be essential. Designers will need to find innovative solutions to solve practical problems, redefining esthetics, answering to regulations, presenting quality proposals and managing systems for architecture of the new generation.

Cities, mobility and public spaces. The task force found a general consensus with the idea that this event should be exploited for good, to push systemic changes forward to allow us to tackle the challenge of **climate change**. In particular when reflecting on the theme of mobility, three areas in need of a systemic change come to mind - the transition from vehicles with internal combustion to those with electric motors, the expansion of micro mobility and the reduction in commute as a result of digital connectivity.
About public spaces instead, it is clear that once the crisis passes, the concept of “smart-city” will not be sufficient. The next step to take is towards a **safe city**. We must look at the models of the city where technology serves the need for public space safety and security, to restore a sense of security among citizens. **Design will be in close contact with data**, the “smart and safe” requirements will be analyzed contextually to direct contemporary urban planning. DesignTech Hub is at work to give structure to contents and proposals that account for the younger generation needs, especially children who need creative and supportive schools open to new ways of teaching.

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01 REAL ESTATE

Curated by **Lendlease**
In collaboration with **Giuseppe Tortato Architetti** and **GET**

This virus has forced us to seclusion and, even though we are part of a global tragedy, it has projected us with unimaginable speed to a hybrid way of living and working. Thanks to this, deep reflections have started on how we use the space around us, and most importantly our social organization. An opportunity that needs to be taken not just as a business opportunity, but as a more general occasion to regenerate the relationship between the living systems, like humankind and nature. The lockdown, imposed by the health crisis, has highlighted in many contexts a progressive recapturing by nature of some anthropized spaces, together with a general improvement of environmental conditions (reduction in air pollution due to the decrease in manufacturing activity and of the incidence of the transportation system, quality of water in reservoirs due to the reduction in navigation, etc.). From these effects of the crisis, we need to restart with rethinking the models of real estate development to account for the incidence of the anthropic activity on the environment. An important and conscious revision of this activity can positively contribute to address some of the environmental challenges like the fight against climate change, which represents one of the contributing factors to the health crisis we are experiencing.
Covid-19 stopped time. Nothing will be like before. Like in the movie “The Truman Show” we have figured out the trick - there are many other possible ways of living. Many of us could work and live differently in a more hybrid way, leaving more space for private time.

In this sense Real Estate is a powerful and fundamental tool to second and address change

Architecture and design must return to the social function they lost in time, having become more autoreferential. Built structures need to be given a symbolic and identifying value, not just a functional role. This will allow to open up our minds toward a new way of thinking, planning, building and communicating spaces. Starting from these premises, we can rethink models of development and more pragmatically the characteristics that buildings and urban spaces must have, most of all to be considered “not forever”.

Planning buildings’ life cycle

It will become fundamental to plan for a study of buildings’ life cycle ahead of time. More precisely the study of its components, in order to minimize their emissions within their life cycle cradle to cradle. The cycle starts from the extraction of the raw materials, to make the building’s components, all the way to their reuse at the end of the building’s life. In addition, the versatility and flexibility of built developmen-

ts will be instrumental to accommodate future change and to facilitate regeneration.

We need more space and time to plan and study materials and building components in order to optimize quantities, production, chosen means and their impact on management, upkeep and dismantling. If and when buildings become obsolete or no longer functional, the planning of their life cycle need to provide the option to “disassemble” instead of demolishing, taking advantage of technologies that allow for such option (offsite construction whose components are designed and largely realized in a plant, so to allow for a quicker installation and consequently a reduction of scrap material, construction time and related costs). Let’s then focus our attention to the planning approach defined as DfMA (design for manufacturing and assembly). The buildings of the future will be built less and assembled more, much like in the automotive and aerospace business for example.

Guidelines for new constructions.

We have identified the following desirable characteristics for new constructions:

- Buildings developed according to the principles of bioclimatic architecture, permeated by nature and natural light, properly regulated so to maximize its use while still protecting the dwellers from glare;
- Privileging sustainable and biophilic design. To this regard, S. R. Kellert and J. H. Heerwagen write: “Biophilic design does not consist in making our building more eco-friendly or to increase their esthetic appeal by adding trees and shrubs. More than that, it refers to humanity’s relationship with nature and the place the natural world inside society”. Biophilia is “an innate inclination to focus our interest on life and life processes”.
- net zero carbon emission. As of today, the real estate world, whether standing, in its planning stage or being built, accounts for almost 50% of the global CO2 emissions. The “UN Global Status Report 2017” predicts that between today and 2040 we will build the equivalent in square meters to the size of the city of Paris...every week! The immediate objective then is to plan buildings that will have zero emission impact right away. At the same time, we need to work on decarbonizing the existing real estate portfolio, through interventions of Deep Renovation, in compliance with the directions of the European Community.

Respecting the above principles means to prioritize:

- The planning of passive buildings that will auto-regulated naturally, using for example natural air flow and temperature control systems where possible, like solar chimneys and wind towers;
- Technological solutions for thermal insulation, increasing thermal inertia and control, supporting all physical phenomena that happen naturally without adopting technological operating units that consume energy. Where possible (meaning without lowering the comfort of the internal environment) the contribution of operating units should be reduced, as they greatly affect costs both during construction and maintenance operations;
- the use of noble material from an environmental point of view (Bio-based), mostly wood (Glulam, CLT, Xlam, LVL), will allow to reduce emissions generated by steel and cement and give a new look and a more human feel, while positively affecting the toll on carbon emissions (the analysis of wooden systems’ life cycle highlights also the positive contribution to the environmental during the life of the tree, having absorbed significant CO2 levels);
- in the operative phase, a new net zero carbon building should not be burning fossil fuel. It should use energy from 100% renewable sources and it should reach an energy level performance in line with the objectives on climate change;
- In the construction and decommissioning phases, the building should be made with reused materials and that can be disassembled at the end of their life. This will minimize the waste output to landfill and maximize the reuse and recycle of components, in compliance with the principles of circular economy.

Designing buildings resilient to systemic crisis like Covid-19

There will be changes in the buildings planned post Covid-19. It is a matter linked to a technical/wellness approach, that acts at a subconscious level aimed at reassuring users, acting on objective factors linked to legal and technical aspects but also subjective like the perception of risk:

- Scanning systems while entering buildings (raised temperature means no entry!);
- Systems with contactless and wireless technologies, voice control and facial recognition, to minimize contact with potentially contaminated surfaces;

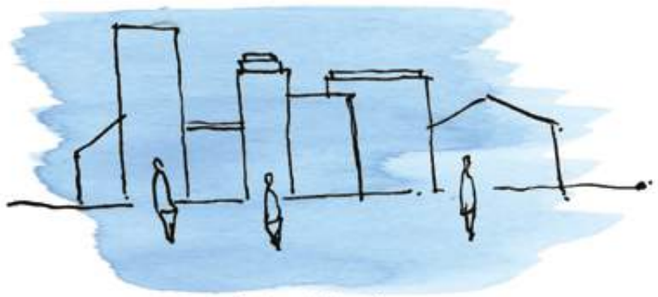
- Natural ventilation systems (where external air quality allow it), with frequent air change and possible integration with stand-alone air purifying systems; or
- Use of mechanical ventilation systems with external air flow control, with activated carbon particulate filtration, with UV bulb treatment systems for cooling coils/finned blocks/condensation collection areas and recovery channels in case of partially recirculating systems;
- Use of disinfection systems with UV rays for the treatment and sanitizing of surfaces, especially the ones identified as high-touch surfaces (door knobs and handles, handrails, control panels, countertops, design elements), choosing types of such surfaced and finishing treatments that allow for easier cleaning (round shapes, smooth surfaces);
- Germ-repellent materials like bronze, copper, brass (rather than their synthetic counterparts) will be used more frequently in the construction of environments;
- Flexible fit-outs, furniture on rails or wheels, to adapt spaces to a continuous change of use, both in the office and at home;
- Less crowding, people will want to have more personal space.

Measuring buildings' performance and creating value

The sustainability and environmental quality of spaces (to guarantee safety, health and wellness of the dwellers) are reachable when implementing strategies described in the paragraphs above. They can be objectively measured, thus proven, through rigorous performance standards, able to issue an objective and comprehensive rating on the building.
In particular, certification systems like LEED® (Leadership in Energy and Environmental Design - www.usgbc.org) and WELL Building Standard® (www.wellcertified.com) represent measuring standards recognized by the global real estate market (LEED is used today in more than 170 countries around the world, while WELL is used in over 70) as indicators of quality of the built assets.
Such systems, constantly adapting, are currently moving in the direction of establishing themselves as guidelines for designing, construction and maintenance of buildings able to meet the challenges presented by Covid-19 through a timely calibration of such measuring standards.
The strategies described in the previous paragraphs find useful tools such guides to implementation, models of calculation and verification and a strong certification process in the rating systems mentioned above (applicable to buildings but also neighborhoods and cities). Such rating system certifies results, thus contributing to the creation of merit.

Merit is what the market uses to establish the economic value of assets, a tool of conformity and viability for the corporations involved and a powerful guide for management and maintenance.

Especially in our cities, the biggest challenge in urban regeneration will be to marry the **need for density and efficiency with the need to create safe spaces and environments from a health-related point of view.**

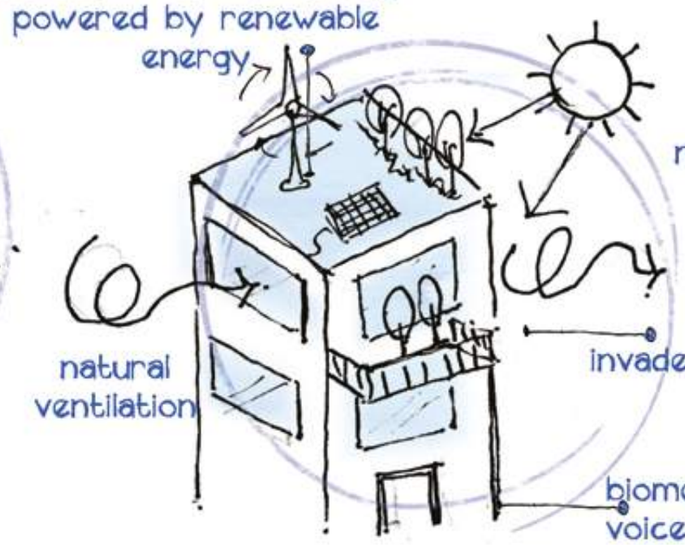


hybrid city

DFMA
less built and more assembled

net zero carbon building

powered by renewable energy



natural ventilation

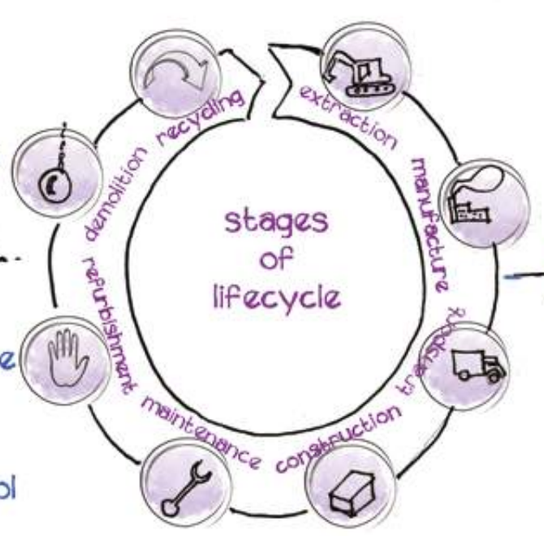
natural light

invaded by nature

biometric control
voice control
germ free materials

sustainable building

BUILDING LIFE CYCLE ASSESSMENT



dismantled instead of demolished

recycling and reusing materials

02 LIVING

Curated by **Pininfarina Architecture**

In 1972 the exhibition Italy: The New Domestic Landscape, opened at MOMA and introduced a new generation of developers to celebrate the visionary quality of Italian design and its ability to imagine futurist living scenarios, even with a pioneering use of technology.

The international crisis we are living in puts us in a similar situation, where we can imagine new ways of living, working and moving. If it is true that creativity flourishes under pressure, we cannot waste this opportunity. After weeks sheltered inside, interacting with the micro-communities from our balconies, we have completely changed the way we live and perceive our homes. A new common need has emerged: to update our home environment to a contemporary (co) living standard. And to this need we need to answer with the evolutionary strength of design.

An open ecosystem

The residence of tomorrow will be different - no longer a simple construction product, it will be a fluid, complex landscape, continuously changing. We need to imagine it as an open ecosystem, an extrovert environment, reaching out towards the outside that could be temporarily inaccessible. Data substantiate this need. Just in Italy in the past four weeks, the value of properties with a balcony/terrace or yard has gone up by 8% and, by the same token, the ones without outdoor living have gone down.

Having observed new behaviors (and done it ourselves) in the past weeks, we have noticed a new use of all circulation spaces - landings, balconies, walkways have become extensions of daily living. This natural colonization of residual spaces represents an organic development of living. The flat footing of buildings can prove to be fundamental for the improvement of dwelling quality. Even pilotis, staircases, courtyards and parking lots can be dignified to common living spaces, accelerating the extensive adoption of solutions that have been discussed for years, like urban gardens and systems of hanging green. The living space needs to be able to expand in an organic fashion, growing according to the influx of people who live in it.

Technology can help with this exercise, from planning to construction. We can imagine buildings like machines, in constant transformation through the integration of modular structures, built off-site, ready for assembly and disassembly, and to be combined. We can finally fulfill the prophecy of Archigram and the visions of Cedric Price, forgotten more for cultural reasons rather than technological limitations.

A digital ecosystem

In the first week of forced isolation, the digital universe witnessed a sudden momentum centered on the home living environment, which became the only place of living, working and entertainment. This acceleration will facilitate the adoption and integration of technologies, creating a new culture of digital living that until today had had a hard time finding its own identity. We will not be referring to it as domotics, but rather of sensible environments able to maximize our physical and psychological wellness, shifting according to our momentary requirements.
When it comes to personal health, we will witness a rise in telemedicine intended as a system of access to health centers and hospitals, a model of home-based healthcare networks called hub & spoke. The concept of care will evolve to a concept of "taking care", placing strong attention to all the parameters that affect our wellness - air and water quality; thermal, lighting and acoustic comfort; and nutrition.

Inside our new domestic ecosystem, we will have to plan the use of different spaces, for different moments and in different ways. Foremost this will impact the spatial conformation: no more minimalist lofts, to give way to more complex spaces both horizontally and vertically. Our homes cannot bore us, on the contrary, they need to surprise us and entertain us, letting us play with mobile walls and furniture. From a functional point of view, we need to be able to transform work spaces in entertainment spaces - immersive projections must serve multiple purposes like watching a movie, making a conference call or travel with augmented reality. To these spaces we need to add others for physical activity, for home gardens, and a creative space to let imagination open up any window on the world.

Micro-communities and social networks

While usually we consider ourselves "citizens of the world", this quarantine has forced us to connect with the micro-communities created by spontaneous interactions. From the windows and balconies of our homes, our social network has suddenly shrunk to the group of people that we communicate with from a short, yet safe, distance. Looking forward, architecture will have to include these micro-communities in its projects, taking advantage of methodologies to generate intentional, additional and measurable social impact with the intention to strengthen interaction, involvement and enabling of local communities.

Speaking of social impact, we cannot limit our actions for change to the private sector. The public sector, at the city and regional level, will bear a fundamental role in expediting these transformations, rewarding through tax cuts or less bureaucracy a rehabilitation of existing assets towards the creation of common and public quality spaces. At a national level, the same goal will need to be implemented by putting millions of empty buildings on the market, supporting new ways of living at the same time. Just in Europe, according to a research of the British newspaper The Guardian, there are 11 million empty and unused homes. A further opportunity could be identified in the conversion of tourist and/or hotel structures, currently unused, into themed living or co-living spaces targeted towards a specific segment of the population. Even the sharing economy, that has momentarily stalled, will then regain its strength in the medium term.

The symbolic power of architecture

On the urban scale, we cannot forget how the architects' mantra in the last ten years was only one: urbanization. There is a good chance that the pandemic will revert this trend. This will have quite the impact on the home, or where we will decide to live. To see our empty cities, seemingly lifeless, has instilled new life into the mission of architecture to create social identity - we are our cities, our street and our monuments.

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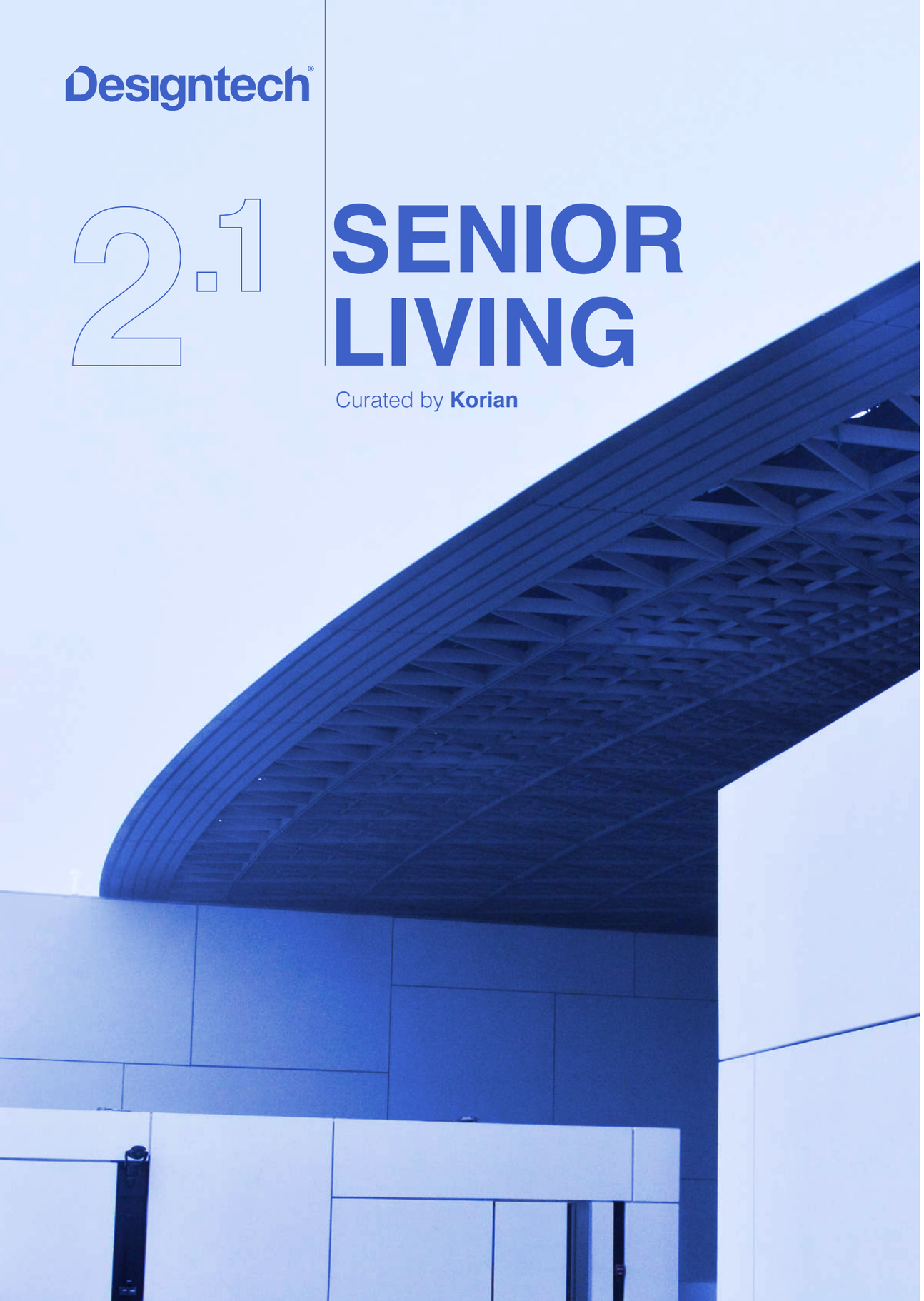
2.1 SENIOR LIVING

Curated by **Korian**



The COVID 19 medical emergency has thrown into stark relief the problems linked to protecting the most vulnerable from pandemics.
The forced isolation imposed by the pandemic has exposed the inadequacies of current residential facilities (nursing homes and traditional homes), particularly for those who, despite the natural fragility of their age, are still self-sufficient.

Current residential facilities, designed for those who are not self-sufficient, have failed to meet both social and healthcare needs. They will have to be redesigned using new methodologies to maximize well-being and safety, they should also be seen as hubs for a network supplying homecare services for the whole area through cutting-edge healthcare technology.

New residential facilities, ranging from micro-communities to nursing homes, should guarantee the highest quality when it comes to living standards, meeting not only healthcare requirements but especially social and psychological needs. Perceptions and emotions should be pivotal to the way accommodations are designed. Care must become caring, with a special effort to achieve the right balance between aesthetics, functionality and usability. Natural light and fresh air, together with gardens and greenery, are essential for physical and mental well-being. Spaces should be able to adapt to the specific needs of the guests through flexible layouts, able to change shape and function simply and intuitively.

Technology, in the sense of a mean to generate positive impact, should fit seamlessly into the environment, guaranteeing ease of use and efficiency, working holistically and transversally in different environments:

- environmental sustainability throughout a building's life cycle;
- comfort and well-being, integrating technology systems that provide direct contact with users and constant monitoring of their physical and mental condition;
- with complete respect for privacy, personal care could be provided by an integrated safety and remote healthcare system. Residential units would be fully equipped with sophisticated sensors, such as automatic fall warning systems, smart beds monitoring vital parameters and any anomalies in guests' usual behavior and habits in general;
- from a social point of view, audio/video communication technologies are vital for keeping guests in close contact with their friends and families, ensuring they do not experience that sense of loneliness and neglect so many elderly people suffered from during the months of lockdown.

AREA 2.1

The coordination and monitoring of these technologies require centralized management through hubs spread out around the country, integrated with digital platforms that gather, collate and monitor data in real time and act as virtual meeting points for healthcare workers, caregivers and those they are assisting.

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2.2 CO-LIVING

Curated by **Matteo Fantoni Studio**

It may seem out of context and almost anachronistic at this time in history to talk about co-living, places of sociality and architecture of sharing. However, while the pandemic seems to have promoted policies and measures of separation and compartmentalization of space to guarantee individual well-being (will we be forced to live in plexiglass barriers scenarios, or in a “Buckminster Fuller bubble glass”?), the human need for sociality emerged spontaneously, creating surprising scenarios of interconnection during the period of lockdown.

“How will we live together?” is the current theme raised by Hashim Sarkis, curator of the 17th Venice International Architecture Exhibition, to emphasize architecture’s purpose, now more significant than ever, in redefining a new “spacial contract” of living.

Sociality and well-being, terms that at this time might seem opposite, come together in the formula of co-Living by becoming a new opportunity in this global crisis to transform and regenerate our cities, starting from new models of living and sharing spaces with wellbeing as central topic.

Welfare sharing

Although the sharing services’ economy has been brought to its knees by the pandemic and social distancing policies, its principles are not to be abandoned but to evolve. If the sharing economy has taken advantage of profitability for goods produced, from transport to residence sectors; the new co-living, oriented to humans and the planet’s health, will have to guarantee safety without losing sight of profitability and cultural opportunities generated by sharing.

The pandemic leads us to think about a reversal of trend from the perspectives of spatial density and the environments’ quality, but not of the model itself. In fact, it can become an opportunity and accelerator to rethink new models of living and working in a flexible and sustainable manner, due to the networking and sharing of physical and virtual services.
In this scenario, plurality of interests and investments will be aimed not only at increasing quantity, but at quality, and sharing wealth as the economic engine of a new sharing model.

Technological re-functionalization

Social distancing rules have worked since the start of the pandemic as an accelerator for technological and virtual innovation. Innovation applied to services, therefore to shared planning and management, are certainly a field to invest in for co-living environments. Management of flows based on needs and schedule, but also of delivery services, programming of entertainment activities, sports and education via virtual interfaces or in common open places: these represent just the first steps for the development of new smart communities.

Co-living is a perfect field for experimentation and an ecosystem for social innovation, which is applied to our way of living and working. It is no coincidence that co-living is increasingly associated with the concept of living lab: a place where innovation serves stakeholders, protagonists and active parts of the transformation process. In the long term, these models will become references for technological experimentation for shared safety and well-being, scalable models from the domestic dimension to the city.

Conversion as a model of social and environmental sustainability

Medium and long-term objectives are aimed at converting less used and valued spaces within traditional housing buildings into co-living environments. Examples of co-living demonstrate the effectiveness of the enhancement of each individual space, such as converting basements into laboratories/video rooms/meeting rooms, roofs in hanging gardens/terraces for outdoor activities/solar energy plants. Voids and distribution spaces are also to be enhanced to maximize light, air flow and views, in addition to the presence of green within the volume and in each housing unit.

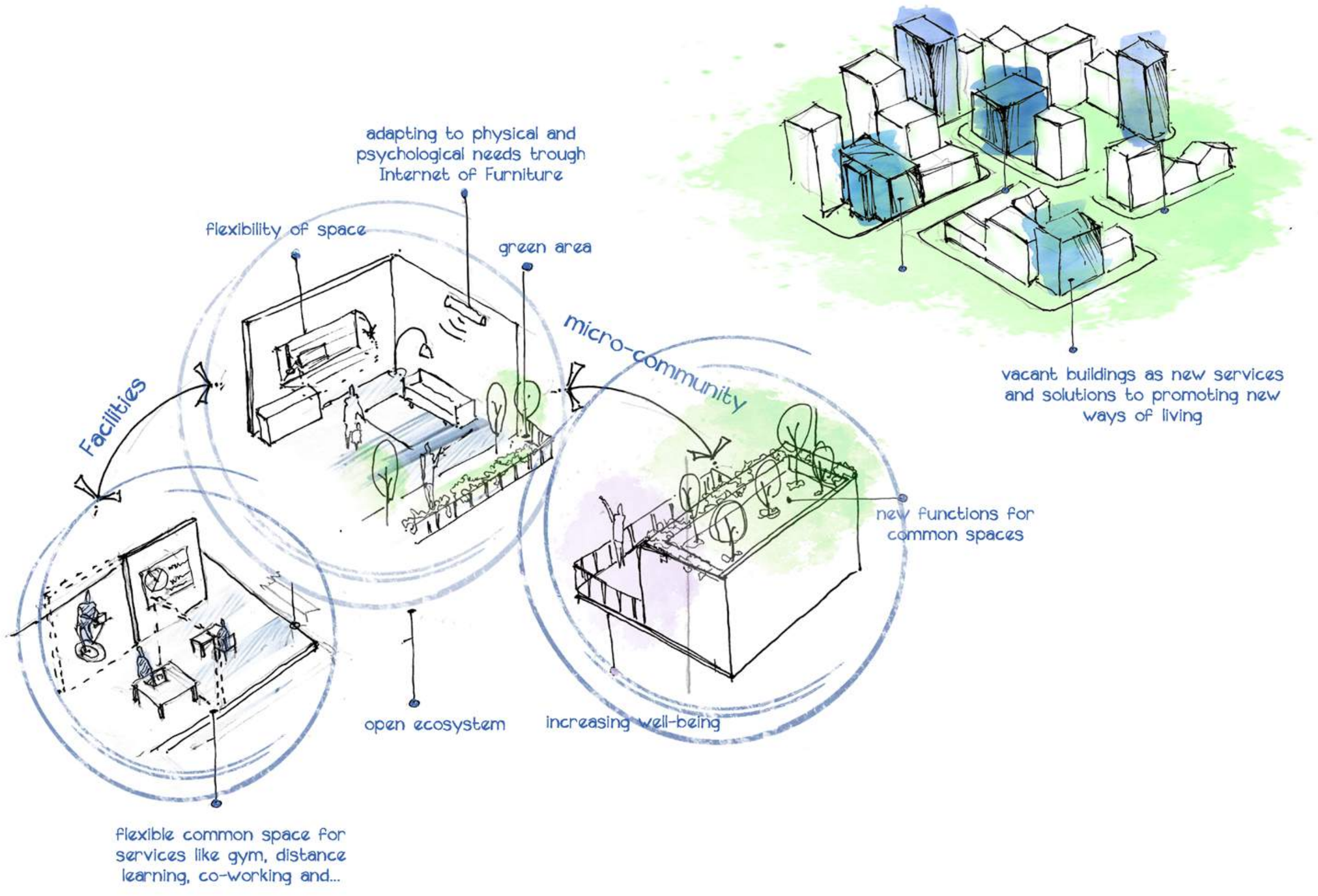
Think of a sustainable vertical circulation, allowing care for one's physical form, in which large distribution ladders will be privileged over elevators and corridors. The co-living model allows us to convert what was previously unused into income-producing spaces that increase the real estate value and habitability of individual housing units; allowing to transform old and non-functioning buildings into new, fluid and multifunctional organisms, socially and environmentally sustainable.

Regenerate starting from a micro-scale

Recalibrating space in terms of health, maintaining efficient working connections, education and sociality and encouraging a slow but sustainable circulation: we imagine the city as a multi-centric system that values its different areas and the local scale of neighborhoods. Moreover, we imagine a city with a new rhythm, which recalibrates its density by considering the suburbs an important element.
In recent years we have witnessed important episodes of urban regeneration in this direction, but little has had the opportunity to develop and regenerate the city in the little scale construction.
Upgrading a building, or a building system, by converting it with a logic of co-living is a mechanism that can work in cities as in suburbs and suburban belts. Sustainable, connected, flexible model sand place of experimentation and innovation, it can certainly become a proactive organism in the territory in which it fits.
Social well-being will be the engine for new smart communities, able to regenerate the urban fabric from the micro scale through a network of self-sufficient buildings, safe and sustainable, integrated in the territory, virtually strongly connected.

Dynamic habitats

In few months we have adapted to work from home, we have taken significant care of the space in which we live and have shared work, education, well-being, family life within our households. If the human being is said to be an extraordinarily adaptable organism, so must be his home: a dynamic habitat, formed by transformable and expandable modules, suitable for the overlap of different activities and demands within a shared environment (e.g. transformable spaces with sliding light screens, adaptable distribution, naturally ventilated terraces, maximum permeability and natural lighting).
Habitats and new living environments will heavily rely on a sustainable design that uses lessons from the past – natural ventilation, light, natural and antibacterial materials – using new technologies to create dynamic spaces, monitoring the environment's health, and using smart and customized management practices.


adapting to physical and psychological needs trough Internet of Furniture
flexibility of space
green area
micro-community
Facilities
open ecosystem
increasing well-being
new functions for common spaces
vacant buildings as new services and solutions to promoting new ways of living
flexible common space for services like gym, distance learning, co-working and...

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03 WORKPLACE

Curated by **DEGW/Lombardini22**
in collaboration with **Workitect**

Work communities have been for long time physical/virtual mixed entities, only partially linked to a tangible place. Covid-19 has taken this polarity to the extreme by shifting the weight to the digital side and has put the most innovative office spaces in the background. The return to companies will pose new problems to the fluidity of the spaces, to functional hybridization, to “collisions” between different people and businesses. It is a technical-medical challenge but also a symbolic one.

Workplace culture and social role

The symbolic value of the physical space remains crucial for the organizational balance: it is where corporate culture is generated, it is the point of reconstruction between strong and weak bonds. Today it will have to give rise to “enabling systems” that combine potential vulnerability and real protection: “no-risk places” capable of handling sudden emergencies. Immediately, it is necessary to balance objective (according to the regulations) and subjective (perception of risk) factors: caution, gradual return and clear communication programs (change management) are required. This theme is declinable on two interacting levels:

- ‘hard’ level of physical spaces (space planning, interior design, systems);
- “soft” level of new behaviors (use policy) and technologies.

Smart environments and behaviors

A stress test of the buildings is essential: they must guarantee different flows, compartments, low density levels and activate frequent sanitization programs (air and surfaces), mechanical ventilation, in relation to the energy performance expected from the building-plant systems and environmental well-being, is a sensitive issue.

In perspective, touchless technologies will have to be implemented: sensors, automation, voice commands. The theme is also perceptual: hypersensitivity to shared spaces, to contact surfaces, to health and hygiene rituals, to closeness. Wearable proximity sensors could be developed as individual accessories for controlling the distance between people. Paradoxically, if the protection could move on the person, it may not be necessary to change the spaces.

Organizational demand and relocation

The boom in remote working is an accelerator that has also demonstrated unexpected efficiencies: more alignment, less interference, more order in carrying out tasks, more connection even if distant. Many activities will continue and perhaps stabilize according to the types of office work:

- productive entities (which will keep more traditional needs and presence);
- service entities (which can largely proceed remotely).
- The percentages of the latter, according to two recent papers (MIT and National Bureau of Economic Research, Cambridge, MA) can be high. What is the impact on workplace?
- demand - the increase in work from home can decrease the need for space; security protocols can instead increase the standard m2/person ratio and therefore the demand: two trends that can compensate each other (premature to say what the balance is);
- proxemics - a new specific relational proxemics must be considered: intimate or personal (<0.5-1.2m), social (1.2-3m), public (> 3m) distances will be altered on the basis of cultural background, character people, tasks and business models;
- localization - a re-evaluation of extra-urban real estate products is possible, reversing recent trends of attraction towards the city center (like Microsoft in Milan), as well as the birth of new settlement models, bio-resilient hybrid “campuses” with reciprocal but controlled exchanges;
- modular flexibility - economic uncertainty will accelerate modular, flexible, “instantaneous” space occupancy company policies.

Coworking

Where turnover is more frequent and internal mobility less “traceable”, uncertainty and perception of risk are more acute. Can coworking still play a role? The balance between shared services and profitable common areas is destined to change: more divisors and private offices will have to be foreseen, less random meetings between different teams and companies, limitations in meeting rooms, rarefactions of hot desks, etc. As a “relationship hub” it will change its operational and identity DNA. Is it the end of coworking? Probably not. You can expect new customer flows that will be generated in a perspective of corporate lightening and adaptation to changes. It will be able to provide proximity spaces for the new wave of remote workers.

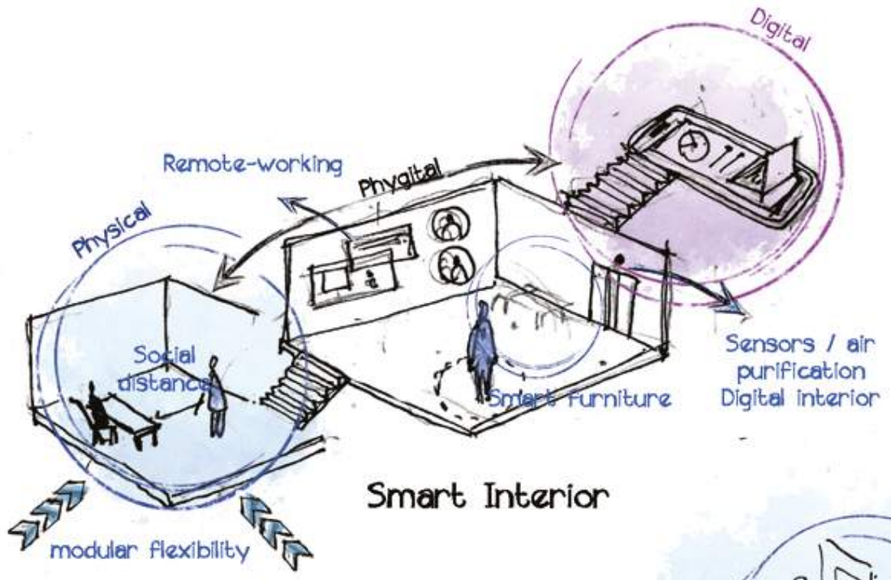
Smart working and leadership

Being remotely operational, which we are experiencing massively due to Covid-19, has diluted the factors of work cohesion in the workplace: on the management side, the emphasis shifts “from workplace to workforce”, and this has an impact not only on the role of technologies, fundamental for maintaining relationship continuity, but also on leadership models. We will have to accelerate towards evolved models that provide for trust, delegation, widespread responsibility, focus on results rather than on presence: it is the cultural lever (with HR policy, technology and workplace) of real smart working. We are only knowing part of this path, teleworking, but smart working is a more complete organizational paradigm: a model capable of providing the right spaces and the correct equipment for each task in large support areas (activity based), which promotes mobility and dynamism (active design) and therefore psycho-physical well-being, exchange of knowledge through desk sharing, remote interaction with individuals and virtual teams, accompanied by clean desk policy.

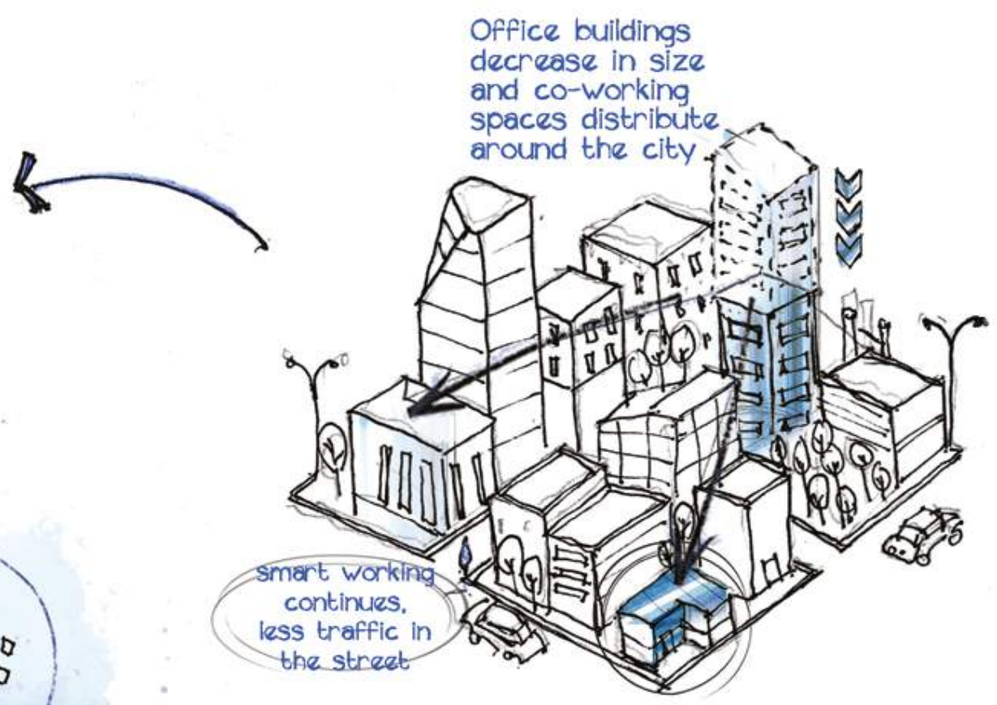
Technologies and surfaces

Technology is perhaps the weakest link in Italy, especially in the lack of homogeneity in connection of the territory. We trust that this period can give a strong boost to the current context. In perspective, more and more space will be “phygital” (fusion of physical + digital), we will have “intelligent dialogues” with objects (IoT), we will generate more and more interpretable data thanks to analytics. In this “future”, smartphones and smart furniture will be at the service of comfort and increased experiences in digital interiors.

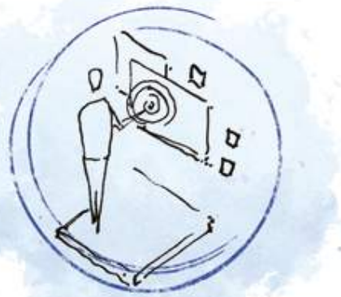
But also, **material and natural interiors** will need to be designed with new considerations and embracing the themes of fear and stress. Preferred “hard” materials will facilitate hygiene, or that quickly eliminate the viral load (4 hours are estimated for copper, steel and plastic require respectively 48 and 72 hours). We may witness a return to “ancient” materials such as copper and its alloys, brass, bronze (at least in the common spaces), as well as new generation solid surfaces, with antibacterial, photocatalytic and recyclable properties. New forms of material certification can be envisioned. While today, biophilia is a more actual than ever approach.



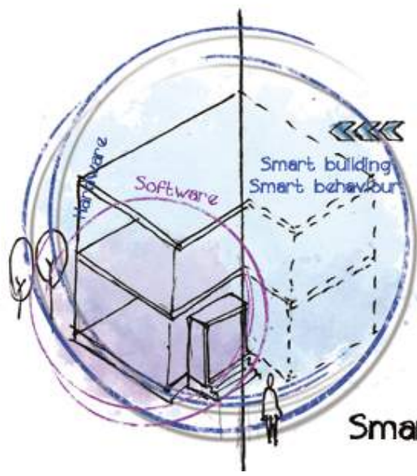
Smart Interior



Smart City



Smart People



Smart Building

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04 HEALTHCARE

Curated by **Binini Partners**
in collaboration with **Centro Medico Santagostino**

The medical crisis linked to the spread of Covid-19 has shed a new light not only on large scale design, but also on a new health model both widely spread and local based, that forms part of our everyday life and that is able to build a versatile and efficient place that considers at its center, first and foremost, the individual and its needs.

The next generation of hospitals

Nowadays design is called upon, and rightly so, to create or convert a new generations of network services and structures on our territory, based on the scientific evidence and the successful models of organization resulting from this experience. A creative work that will give birth to new hospitals, medicals and research centers, including housing, to allow for efficiency, sustainability and accessibility of the health treatments to everyone. The very same structure and spaces have to be considered from now on, a fundamental part of the healing process. They have to be rational and flexible as to minimize the operating cost to allow investing in medical personnel and new technologies.
The modern hospital is able to give its own contribution to the welfare sustainability as well as healthcare is. It will be equipped with highly technological and digitalized components, by integrating patient care with scientific research and university education.

There is not a unique hospital paradigm but a wide variety of “efficient” models for the requested functions, or for the ones that will be required in emergency situations. **Efficiency and flexibility will be the keywords.**

For these new hospitals, wide and open constructive spaces are required, as well as an adequate ceiling height, without any constriction, block or bottleneck that may interfere or stop the possible functions or distributions. So, every floor can serve more than one function and has to be adaptable in time to different needs and technologies that, of course, are constantly evolving.
This method also serves the purpose of granting maximum functionality to the medical staff, to reduce to a minimum the hospital paths, enhance assistance and avoid transmission of contagion.
Path system and access control need to select and separate the flow inside the hospital area and its buildings, supporting hygiene and correct distribution of people and goods.
It is fundamental to re-evaluate the wide adoption of single patient rooms, that can be easily converted into isolated or intensive care units; to have at disposal flexible spaces not only for access control, but also for the security of the medical personnel and for setting up

hospital to be activated in a very few hours/ days accordingly to an arising emergency situation.
Spaces dedicated to the public, as well as those dedicated to students, workers, or for people that are being treated in hospital, have to be characterized by an excellent reception, safety, comfort, hygiene and finally an optimal air quality.
Digitalization, automation, IT, HTA, personalized medicine and telemedicine will support next generation of hospitals and will connect them to the patient at work or at home. Functional mobile walls can assure flexibility, even in future times, along with a maximum level of hygiene and a minimum quantity of dust and polluting emission during the construction process.

Locally based services and housing post Covid-19

During the period following the lockdown, it will be fundamental to strengthen the digital management and the development of locally based services such as health centers, aids for family doctors, diagnostic and outpatient services; all this, in order to relieve hospitals from unnecessary activities and therefore ensure a simple and quick emergency medical service even outside the hospital.
The above mention structures, of central importance in normal times, become crucial in emergency situations. In fact, they serve the purpose of monitoring the situation outside the hospitals, intercepting infections, preventing the extension of the outbreak and, last but not least, managing most of the cases at home.

Private residence, the home care settings and home care assistance will turn into key elements after Covid-19, both in Italy and elsewhere in the world. As a consequence, the design of specialized spaces for health support that may perfectly fit in our houses through the installation of prefabricated modules, will soon become crucially strategic.

Materials, mechanical units, air quality and sanitization

In order to maximize the virus containment, both the design and the choice of single components of each room will be fundamental; alongside with the materials and the installations, technologies and healthcare furniture, and ultimately the surfaces and specific constructive features. Centralized cleaning and disinfection systems, sanitization systems, control of indoor and outdoor air quality and, in particular, automatic systems of management and control will need to be enhanced.

Investment plan for the recovery of existing asset

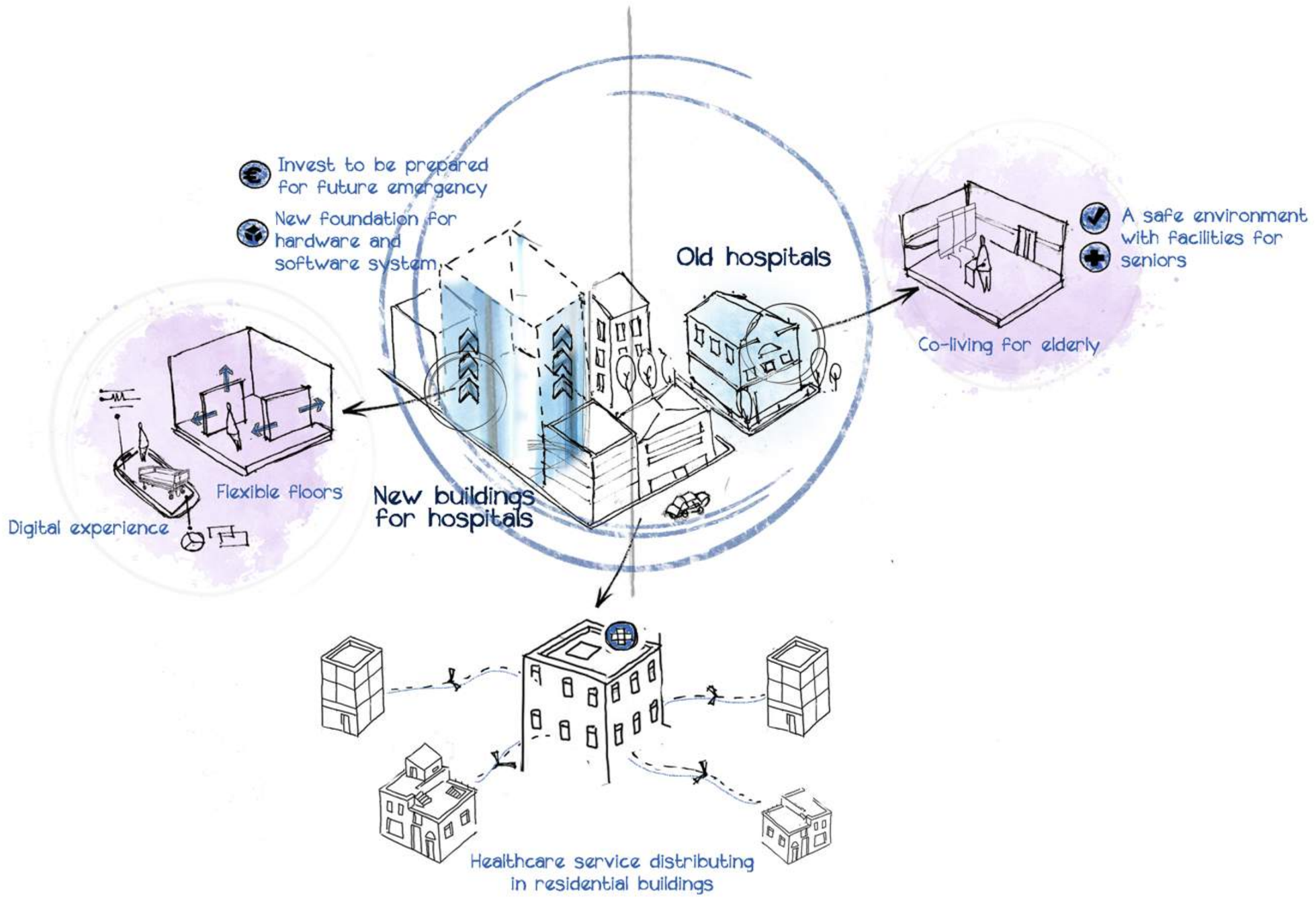
When existing structures are inadequate or irrational as far personnel's costs, excessive pathways, uncontrollable expenses, impossible technological upgrade, lack of seismic and managing safety, they need to be decommissioned to achieve any possible savings.
Consequently, those structures may be restored as local based health care services, as a support for family doctors, or as nursing home for elderly and vulnerable individuals so as to avoid unnecessary traffic towards emergency rooms and hospitals. When not functional, they can be dismissed or passed on to operations of urban re-qualification, which can contribute to finance the modernization program to the health care service network.

Practical management guide of a healthcare facility during co-living

Once the quarantine is over, the need for health, well-being and treatment of all the pathologies put in standby by the pandemic, will force the healthcare sector to improve efforts and strategies to ensure the provision of a safe service, preventing possible new infections.
The analysis of flows and user experiences allow to identify the points of interaction between people in the health care system, thus ensuring both the usability of spaces and compliance with the regulations on social distancing. Where it is not possible to limit interactions between people, interventions can be structured to change behaviors and habits: acting on user experience through the introduction of digital tools, flows can be changed.

Digital perspectives

Every post-emergency activity will be strongly characterized by the adoption of qualified operative models, by digital technologies that can allow, for example, tracking and monitoring the movement of people, equipment and materials. While reducing the number of goods and people transported, the same pre-Covid level of service and/or product level needs to be maintained. The main effort to be put forward while the virus is still around, will be inevitably tied to a new health model where the digital component is predominant. We suggest to move all possible activities online, limiting the use pf physical spaces, creating protocols and protected pathways for fragile and vulnerable patients. We should also create a shared clinical filing system between all healthcare facilities to allow any specialist to digitally consult reports. Finally, we should track the movements within the facilities and perform check-ins/payment operations automatically through geolocation.


Invest to be prepared for future emergency
New foundation for hardware and software system
Old hospitals
A safe environment with facilities for seniors
Co-living for elderly
Flexible floors
Digital experience
New buildings for hospitals
Healthcare service distributing in residential buildings

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05

RESTAURANT

Curated by **Lai Studio**
in collaboration with **Food Lifestyle**

Restrictive measures affect the complex ecosystem of the food business at its heart, drastically limiting profitability and threatening the survival of many. Models that before the emergency seemed rather futuristic, today could already represent the bases to confront the future in the most effective way.
The contribution of Food Design can be significant in indicating adaptations and evolutionary paths. Sectors already in full identity crisis due to problematic and backward models, could emerge from this crisis regenerated. Quality, creativity and innovation must be at the center of every future scenario, in a moment when unprecedented opportunities for emerging ideas and formats are opening up.

Re-Opening of the Premises in Phase 2

Bars, Coffee Shops other types of Eateries operating on a small or medium scale will struggle to find economic sustainability independently, in a first moment. The condition for high-end or experiential Restaurants is different: although penalized by the unique situation, valid ideas and good practices are already emerging from this specific sector, to mitigate the inconvenience and indicate medium-term solutions. Collective catering, on the other hand, already operates according to certified and tested hygienic-sanitary criteria. The prompt adoption of monitoring systems for the personnel via self-check totems that control temperature, PPE and number of accesses, will facilitate operations in this critical phase.

The medium-term observations will be a time of scrupulous analysis, both of the truly practical adjustments and of consumer behaviors.

Alternatives during the emergency: Take Away, Gastronomy and Market

The hospitality business owners strongly demand to allow takeout for obvious reasons, both in terms of liquidity and operational security. Takeout undoubtedly represents a valid way to prevent crowding inside, to lighten the consistent flow to the supermarkets and to simplify the lives of many.

The possibility of picking up ready-made food, together with drinks and other products, in Micro Markets or Grab and go mode could solve some inconveniences, as well as outline an organization model useful on the small and medium scale, as a reasonable alternative to home delivery. The revaluation of quality gastronomy or short supply chain stores together with the incentive for micro and active mobility should start generating neighborhood economies.

Evolution: Foodservice, Delivery and New Kitchen Models

The ability to respond promptly to new habits that will undoubtedly form, while avoiding risky last-minute solutions, will be the determining factor for starting again by betting on the future.

By vocation and size, the large players in collective catering could be the leaders of a transformation capable of shifting the sector to the experiential levels required by commercial catering. High safety standards, if combined with food quality and the ability to meet and satisfy the customers, could be giving concrete form to new collective needs.

Competition between the actors will be concentrated on the level of service and new production technologies. Collaboration with designers and food business coaches will cause a substantial difference. The phenomenon of Food Delivery appeared at least three years before this crisis, anticipating the change in place, while attending an increasing demand, dictated by new habits and lifestyles.

We will probably witness the transformation of professional catering into Ghost Kitchen or Cloud Kitchen, while unusual opportunities open up for start-ups, launching innovative solutions or benefitting of spaces such as Virtual Kitchens.

The truly organized operators will be able to comply with the loss of seats in the room by transforming the kitchen into a 50% Smart Kitchen and the remaining 50% as Dark Kitchen, managing separate spaces and access between Customer and Delivery flows. The key will be optimizing purchases and standard processes, reducing management and operating costs, while generating scalability.

Properly set, they will allow the improvement of the brand's performance and the use of its workforce, redesigning its service models, staff training and the supply chain itself.

Food quality and safety, strict protocols and specifications must be at the basis of the operation, while a rapid improvement of delivery systems and conditions is hoped for.

Space Design: comfort, technology and environment

The Coronavirus pandemic forces us to consider the fundamental importance of the air we breathe. Active sanitization systems offer an innovative solution to establish a virtuous circulation in closed environments. A minimal intervention on the installations, stand-alone and even mobile devices, are able to effectively purify both the air and the surfaces from harmful agents, including viruses, reducing the need for human action in the sanitizing process and helping to reduce the anxiety that accompanies the re-socialization.

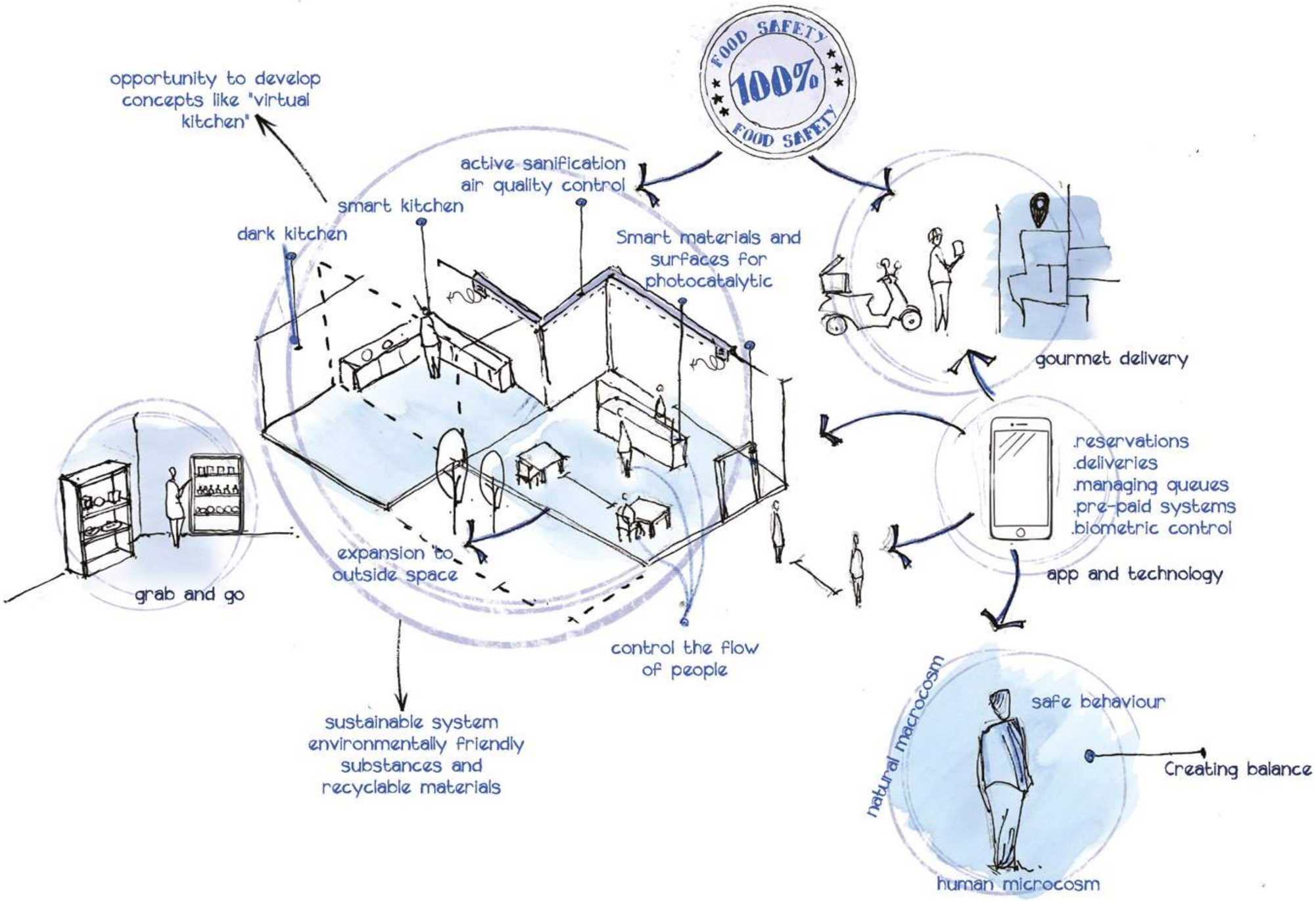
Encouraging photocatalysis processes, both on surfaces and coatings through the use of smart materials, with efficient light design for their activation, will be equally useful. Automation and sensors will move from engineering to furniture, favoring touchless operations.

Looking to the future of dining, we could say that new production technologies will free up space, to be allocated to the public and their experience. A clever, semi-transparent division of the interior spaces will increase the sense of privacy and comfort. The relationship with the customer will become more symbiotic and assume new forms, with the use of ingenious data-driven applications, which will also improve processes and operations. The creativity and competence of

the operators will be strengthened, so as to exceed the current level of excellence. The uniqueness and authenticity of the experience will prove to be an essential paradigm for success, especially, but not only in the leading range.

Ultimately, it is pivotal to determine a path of economic recovery, which takes into account the critical issues of the current system, in terms of sustainability.

A circular economy needs to continue to be encouraged, through generalized measures, such as tax credit. In this sense, the importance of research in design will be strategic, starting from packaging up to dictating the guidelines of industrial production.


FOOD SAFETY
100%
FOOD SAFETY
opportunity to develop concepts like "virtual kitchen"
active sanification
air quality control
smart kitchen
dark kitchen
Smart materials and surfaces for photocatalytic
gourmet delivery
.reservations
.deliveries
.managing queues
.pre-paid systems
.biometric control
app and technology
grab and go
expansion to outside space
control the flow of people
sustainable system environmentally friendly substances and recyclable materials
natural macrocosm
safe behaviour
Creating balance
human microcosm

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06 RETAIL

Curated by **Piuarch**

The phenomena of the lockdown and social distancing experienced in these weeks will have a significant impact on the culture of consumption as a symbolic experience and expression of a society, profoundly changing it. With the progressive return to a “normal reality” the desire and the natural tendency to socialize and be part of a community could even be strengthened, but surely most of the areas of our life (work, leisure, shopping, sport) will undergo a profound change of content and shape after the pandemic.

As for retail, stores will have to reinvent themselves again. Because after the crisis generated by the raising of the e-commerce, today the market will have to respond in a completely different way.

In recent weeks we have already experienced a profound change, which has seen the purchase of food products becoming the only (allowed) activity of our daily life. We are experimenting and we have perhaps already adapted to a new trend of shopping that foresee the one of the near future. In fact, the undergoing revolution of retail spaces in recent years has been compromised by this emergency: retail spaces focusing on experience and entertainment, where the social dimension is emphasized has to be reinterpreted now, at least till the fear of the emergency is gone.

Therefore, a great paradox has been generated, and most of the core beliefs of the “resistance” against e-commerce are losing all their concrete bases. Will we be increasingly digital in our retail experiences, or will the so-called revenge spending, together with entertainment and social needs prevail at the end of the pandemic?

Social distancing has quickly become a habit in our daily life: access to a limited number of stores, queuing, staying inside the shops for the strictly necessary time only and not for “entertainment”, therefore a very measured purchase, far from the impulse buying logics.

This modus may be already part of our daily lives and besides the food category, may apply in other retail sectors too. This will make the purchasing process more essential, not necessarily reducing the sales, but in addition to the traditional store, the implementation of other ways, channels and platforms for the sale activity and using digital to create increasingly engaging virtual experiences will be mandatory. The integration between off-line and on-line activities will be central.

Trying to foresee how much this new “culture” and purchasing method will influence the design transformation of commercial spaces, a distinction between the various commercial typologies and the different product sectors is needed. However, this aspect considerably widens the area of interest and certainly does not allow a synthesis and the definition of generalized rules.

Surely, the concept of the social distancing directly opposes to the retail strategies implemented in the last years, which aimed at creating hybrid environments, where entertainment and experience become complementary to the commercial activity, promoting a concept of gathering that goes beyond the retail activity: food courts, children playgrounds, product presentations/launches, promotional events, etc.
Moreover, the distance of the shopping malls from the city center and residential areas with the consequent need to use public transport (in addition to private ones) will also be a restraint.

The solution might be to shift the focus, no longer on attraction and entertainment models, but on the product experience. In this sense, the crisis of shopping center already underway in recent years will probably happen just faster, while the stand alone and street shops will benefit of this rapid change.

The same thing should concern the open-air markets and those activities where the flow of people is a driving force for commercial activities. Similarly, also small local businesses might have difficulties, due to the limited standing capacity of the shop. Therefore, it might benefit medium-sized stores in central or in dense residential areas. It follows that the dimensions of the spaces will be greater, but the profitability per square meter will be less. This will mean that the livelihood of many businesses will depend even more on the ability to integrate the traditional store with an efficient digital strategy. This aspect of digitization will have even more of a direct impact nowadays: the visual aspect both digital and real will continue to increase its relevance.

For example, shop windows and visual merchandising will become central. In fact, the presentation of the product intended as the opportunity to visually communicate the contents of interest to potential customers will play a key role in the marketing strategy. It will be necessary to exploit each opportunity (both physical and digital), paying attention to an effective identity and image, as well as to the technological quality of the spaces.

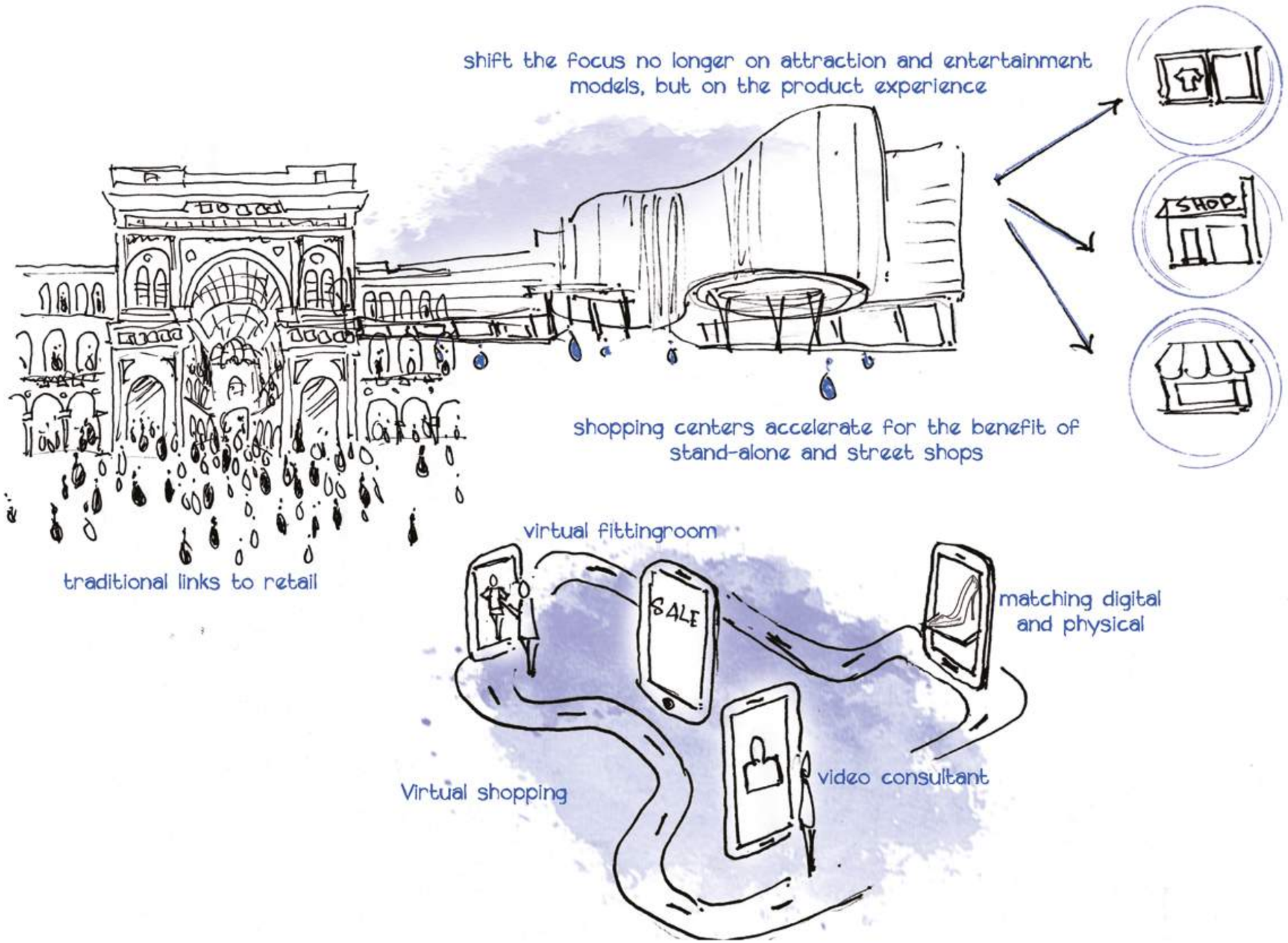
The fashion sector could present many complexities, first of all for the different segments it includes: luxury, ready-to-wear, mass markets, etc., and also for the different targets to which it addresses. Analyzing the fashion industry, we might suppose numerous changes. Beyond the extreme digitalization already in place, we will have to rethink the customer experience and the quality of the service that will be central in the offline activity, as well as immediacy and effectiveness must be privileged in the digital platforms. Surely an ever more cohesive interaction between the two options will be necessary.

In the traditional shop experience, spaces will have to respond to new needs and host new tools such as free cash desks, vending machines and other integrated and dedicated services, such as shopping by appointment, especially for the luxury segment. All the integrated digital services instead, such as virtual costumer service, video consultancy with shop assistants, click & collect, virtual fitting room, home fitting room, delivery in lockers (to minimize close contact) and digital personal shopper will contribute to promoting the retail activity, encouraging the traditional stores.

Therefore, the integration between mobile retail/e-commerce and the traditional store will be essential for the future of the latter. This is demonstrated by the fact that in the last weeks the closure of commercial activities in Italy has also coincided with the collapse of e-commerce, which has not happened in other countries where this integration is already underway. If connected and intersected, the activities are completed.

Other areas of the store that will need to be rethought are the fitting rooms.
In the luxury sector, it will be easier to implement a process that involves to shopping by appointment, as well as to sanitizing clothes and implement large fitting rooms to maintain safety distances. This process should not compromise the quality and the customized offer, which will be expressed in the high standards of the services. In the mass market, the digital system could prevail because of a considerable difficulty in implementing the safety measures. In this regard, virtual fitting rooms have already been started and tested with the creation of avatars to simulate the test of the garments.

As for retail sales in the mass market sector, which by definition is characterized by large crowded spaces, it will be necessary to implement a very rigid standardization of the measures in order to bring customers back to the shops.


shift the focus no longer on attraction and entertainment models, but on the product experience
SHOP
shopping centers accelerate for the benefit of stand-alone and street shops
traditional links to retail
virtual fittingroom
SALE
matching digital and physical
Virtual shopping
video consultant

07

BANKING

Curated by **MBA+D Matteo Belfiore Architecture + Design**

We don’t know what kind of consequences this sanitary crisis will have on our near future. When designing for individual and collective security purposes, it is necessary to review our ways of conceiving the relationships between space and the people who move in it, between the architecture typologies and their relative users. The history of modern architecture inspires us with Japanese Metabolism, proposing an ever-changing architecture able to adapt to transformations in society.

From social distancing to physical distancing

In terms of proxemic, it will be necessary to practice only physical distancing rather than social distancing in the literal sense. That is, social distancing shall be understood as physical (technical) distancing, which at the same time preserves emotional and social connections. This will undoubtedly be the main challenge for bank architects, designers and managers. Social distancing shall be understood in the Japanese way: physical distance but the closeness of purpose.

The Japanese rule: an example to adopt

In Japanese culture, boundaries are symbolically suggested rather than imposed. This is demonstrated by the slender sliding doors - made of wood and paper - that make it impossible to segregate the private space in the same way we are accustomed in the West. Public space is prevalent, and it has priority over personal space. And yet, Japanese culture favors the group to the individual, the public good to the common good.

Reduce and dilute

Reducing and diluting will be the guiding principles of the future organization of banks. Reduce the number and size of branches, dilute their use to avoid crowding. This will also allow for better staff management through teleworking. The relationship with customers will be partly entrusted to remote connections. This acceleration in the transition to the remote banking model will be facilitated by the fact that customers will have become used to the world of virtual services during the months of the health crisis.

Banks will have to reconfigure their branches to comply with the rules of social distancing.

The organization of space at the time of physical distancing

The primary design principle is to differentiate hardware (physical space) from software (its management). The former must be designed to promote flexibility and to allow changes over time. The second must be able to vary according to needs, with limited budgets and reduced environmental impact.

Work on bank branches should concern not only the area dedicated to the public but also that occupied by employees. These spaces shall be adapted to the latest trends in workplace design. For example, by applying the concept of ABW (Activity-Based Workspace) which shifts attention to the user and his activities, rather than concentrating on the place only. Therefore, in the office as well as at home, space and furniture are designed to host various activities at different times flexibly.

Signage as a corporate identity

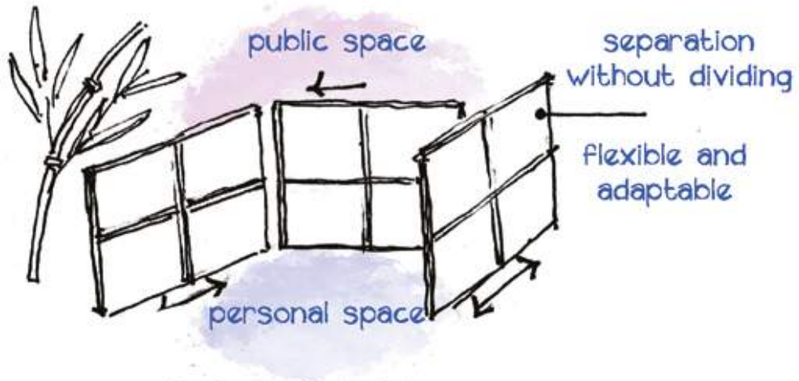
Signage is the tool that guides the bank user to adopt virtuous behavior during his visit to the branch. Similarly, to space and furnishings, even for the signs is essential to provide total flexibility and reversibility, for example through the adoption of adhesive, magnetic or projected signages. If carefully designed, signage can also improve the aesthetic value of surfaces and space.
The signages system shall start from the outside with a map of the premises. It shall contain clear instructions to keep the social distancing, as well as all the routes and directions room by room. Within the branch, communication takes place with graphics on the floor, ceiling and walls. Floor signage is crucial because it guides routes and social distancing. For queues in front of the counters, a simple bank logo drawn on the floor can suggest the safety distance. Finally, the bank mascots could inspire cardboard or acrylic silhouettes to be used as placeholders for waiting areas, again to ensure the safety distance.

The role of technology

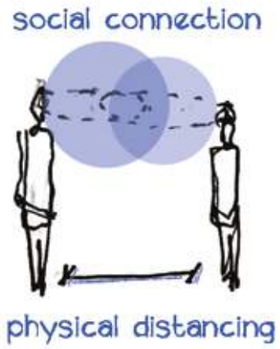
The concept of security is inherent in the idea of a bank. However, from now on, it must have broader and more innovative meanings: first of all, that of health security. This shall be pursued through a complex of interventions and actions, such as:

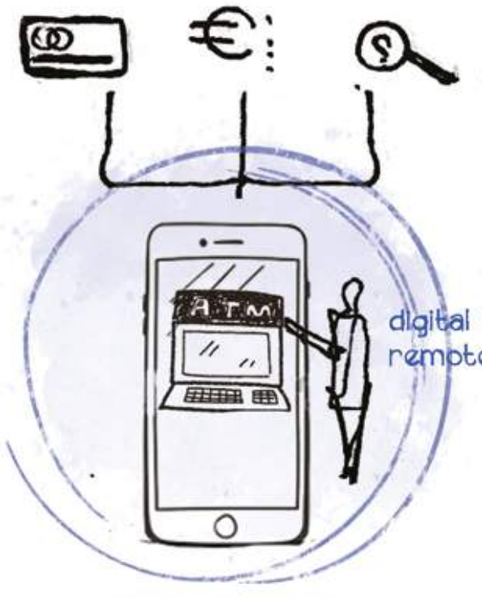
- Differentiated flows, compartments, low density.
- Frequent air and surface sanitization programs.
- Adoption of antibacterial materials and Clean Desk Policy, to facilitate cleaning by keeping the surfaces free.
- Extension of touchless technologies: proximity sensors to control the distance between users; sensors at the entrance to measure the number of people and avoid an overcrowding inside the branch; facial recognition that identifies people who do not wear the mask; automation and voice commands for lights, elevators, doors, etc.
- Improvement of the efficiency of home banking software on users' mobile phones. Smartphones can be enriched with functions for controlling branch operations.

This revision of the concept of safety must also include efforts to guarantee environmental well-being. Banks shall adopt high-end air exchange and filter systems similarly to what happened in China, where the high quality of installations allowed banks to reopen quickly. Nowadays, thermal comfort is almost entirely entrusted to air conditioning and forced ventilation systems. Conversely, a progressive return to natural ventilation and passive cooling techniques is becoming more appropriate after the pandemic. These traditional techniques have characterized our constructions for centuries but have been abandoned in modern times. Architects shall recover those practices and guarantee the right to "open a window" to benefit from natural ventilation.

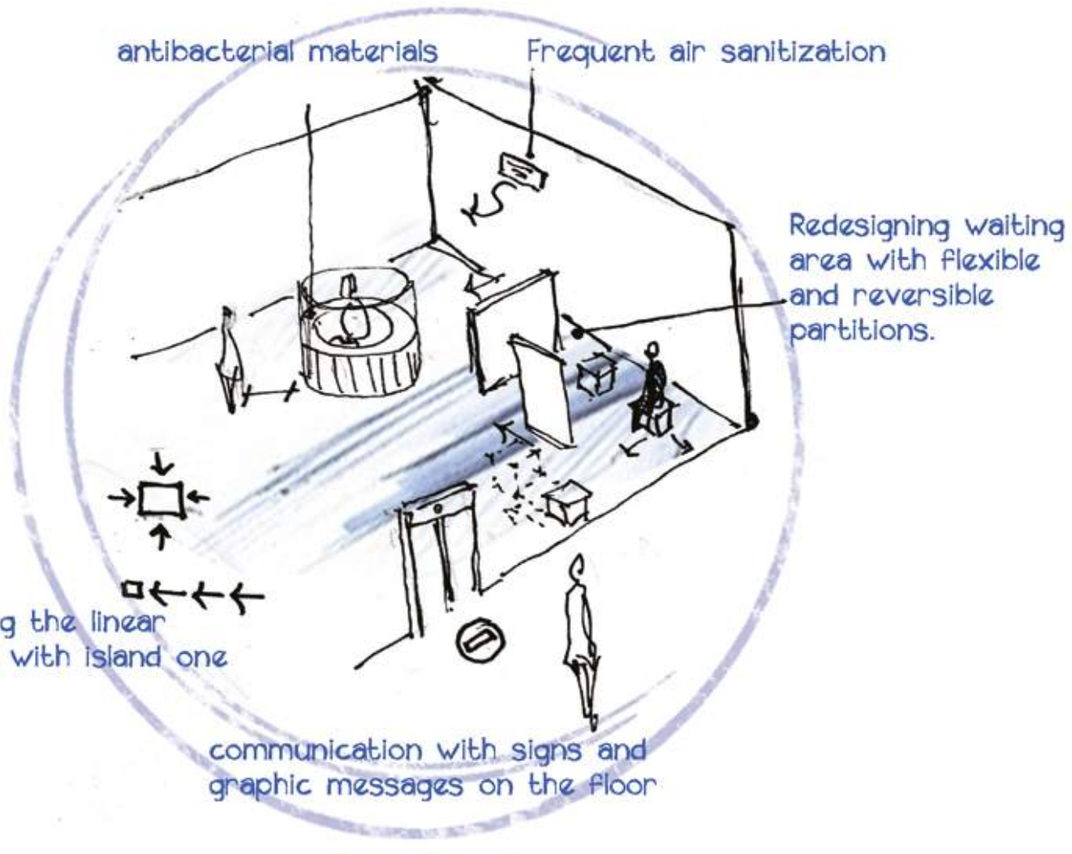


Japanese Metabolism, an ever-changing architecture





Virtual services



Physical service

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08 HOSPITALITY

Curated by **Zaha Hadid Architects**
in collaboration with **Progetto CMR**

The Hospitality sector underwent a series of substantial innovations over the past few years. From mass tourism to the research of an increasingly exclusive and differentiated touristic experience, from hotels trying to replicate successful models on large scale to ones which wanted to differentiate themselves with offers, attractions and attentions to the costumes of the locations they're set in. Business and traditional tourism converged, giving birth to hotels characterized by efficiency, fast or mobile check-in, and f&b (food and beverage) minimized in order to encourage the guests' exploration of the cities.

Within the next years tourism will change, no doubt. We'll all pay more attention to our needs and we'll check quality and hygiene of the structures much more meticulously.
Hotels will gather inspiration from the high-end luxury sector, paying particular attention to privacy and the space dedicated to every single guest. The **all-day dining** concept will be rethought, the possibilities for room service as well as those for cooking will increase, moving hotels closer to the serviced apartments' model, also due to a potential slowdown of residential investments in favor of temporary housing.

In regard to communal areas, these'll have to be reshaped to ensure separate halls and increased distance between guests.
For these changes to take place a particular role will be played by aesthetics.
Could the current situation have an effect on our perception of beauty? Much in the same way that electric cars managed to impose new aesthetics based on ecological characteristics, will the hospitality sector be able to change aesthetics, in particular for what pertains interior design, on the basis of their performance?

Warm and natural materials will leave space to those that are more easily cleanable, oppositions to artificial materials because they're considered "too cold" will fade, and we'll all be on the lookout for cleaner lines, more elegant and efficient. A new aesthetic which we'll probably be already prepared for.

Installations will be rethought in order to allow more efficient filtering systems, as well as facades which will be designed to render them not only water- and temperature-tight but also guarded against pollution. New generation hotels already exist, the hospitality sector is one that's constantly innovating and will continue to, with determination, integrating new requirements and finding opportunities in the post-Covid rebirth.
Hotels and Resorts will need to be equipped to properly respond to new needs, the operators will have to anticipate both desires and preoccupations of their clientele in order to use the global pandemic as an opportunity for innovation.

Us as designers will be called to find innovative solutions to address practical problems, redefining aesthetics, qualities and management systems for the next generation of accommodation structures.

The topic of medium- and long-term hospitality imposes a list of corrective and purposeful actions in order to contain the damage that the pandemic crisis reflected upon the industry.
Thinking about new ways in which these structures could be not left empty and unused is mandatory, both in normal times and should a different emergency situation occur again. Spaces' flexibility becomes a fundamental design paradigm in this new strategic approach.

Hotel chains might introduce hybrid use solutions for their spaces, assigning them functions that differ from that of only hospitality, so that rooms could be used (and could generate income) potentially 24/7 and not only during the nighttime. A well working formula in this new flexible hotellerie vision is the Officetel, that is an office and hospitality space combination where rooms can be used as working spaces and as living spaces; such an idea revealed itself to be very current thinking about the latest ways of working that saw millions of workers maintain high performance levels even while away from the office.

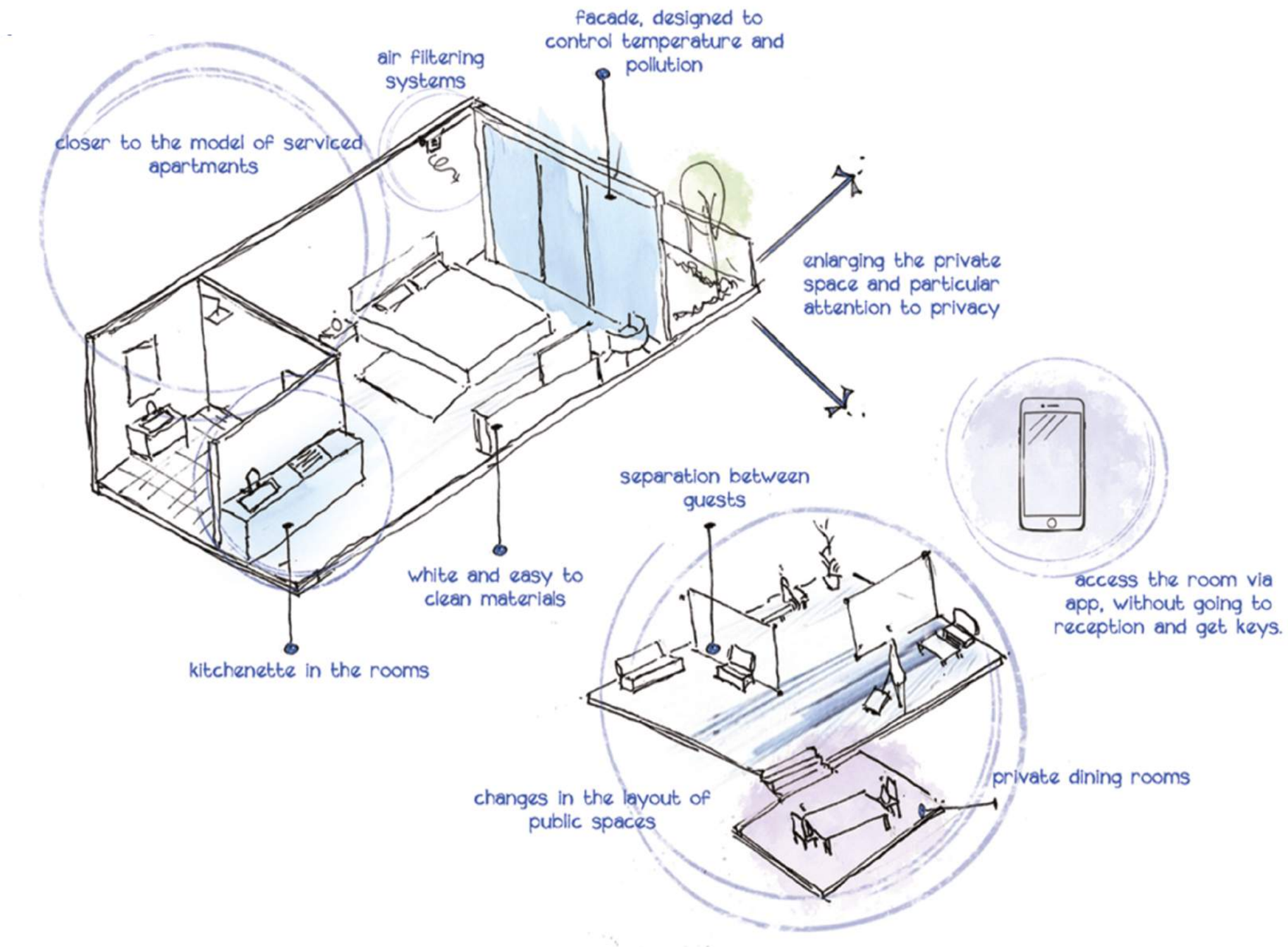
Extending the timeframe to the long-term and thinking about new constructions or about deep redevelopment of existing structures, one hypothesis is that solutions where spaces for the client will be more ample will be preferred, coming closer to the mid-range and upscale hotel models.

The situation we're currently living is also opening other interesting scenarios. The research for shelter, comfort, serenity, and a voluntary "isolation" for the masses, might inaugurate a new touristic frontier: will we witness, for example, a return to personal mobile units (a.k.a trailers), via land and water, maybe reshaped and rethought for the modern traveller, so attentive to technology and hygiene?

Prefabricated houses, that have a consolidated history in the United States, almost as a holiday tradition, might be a solution. On either owned or rented land, such arrangements might become the alternative to touristic living. Moreover, in recent years many companies manufacturing Prefab Houses started orienting their designs towards sustainable solutions, through the use of recycled and recyclable materials and the preference for safe and self-powered energetic devices. A throwback to Le Corbusier and his idea of Unité d'Habitation, that aimed at developing a relational system which, starting from a single living unit (like a cell in an assembly), would then extend to the building, the neighborhood, and to the wholeness of the constructed environment.

With a view to rediscovering more peaceful places and far from the beaten path, a new dimension which might offer interesting opportunities is the constellation of hamlets and villages nowadays almost abandoned. We might decide to breathe new life into such realities, for example converting the many empty living units into a widespread hospitality system. It Italy there are already a few successful examples of the "Multi-building Hotel" (Sauris – Friuli Venezia Giulia, Santo Stefano di Sessanio – Abruzzo, Locorotondo – Puglia, Ortignano Raggiolo – Toscana, Orosei – Sardegna, Montescaglioso – Basilicata, Porrona – Toscana, Colle d'Anchise – Molise, Perotti di Ferriere – Emilia Romagna, Assisi – Umbria): these are small and medium sized living units, located in ancient and fascinating towns, and the starting purpose was one of preservation and protection.

Hospitality will undoubtedly continue to be associated to the idea of wellness and to the care of the client who will inhabit these spaces. For this very reason, **"hygiene certifications**" for all accommodation structures have already been thought so that, comparable to the stars category or other international ranking systems, they will indicate to the clients the structure's safety level. With a dedicated graphic at the entrance of the building, these will be the Hallmark of Health and Safety.


facade, designed to control temperature and pollution
air filtering systems
closer to the model of serviced apartments
enlarging the private space and particular attention to privacy
separation between guests
white and easy to clean materials
access the room via app, without going to reception and get keys.
kitchenette in the rooms
changes in the layout of public spaces
private dining rooms

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09 PUBLIC SPACES

Curated by **Progetto CMR**

The Health emergency caused by Covid-19 poses the delicate yet necessary question of rethinking urban spaces, with such perspective as to favor a greater sense of serenity, safety, livability. In particular, 2020 inaugurated a new era of sociability therefore the idea of public space will undergo radical change. The new design threshold will necessarily take into consideration, at least in the beginning, social distancing as a dominant element.

Historical Evolution of Public Spaces

History has taught us, during previous health emergencies, that the changes that followed also inaugurated new design season. An example is what happened after the spread of Tuberculosis in the twenties, when we witnessed the birth of the Modernist/Rationalist movement: rigorous, clean architectures with the reduction of decor and the dominance of white walls and extensive windows. And before that, in 1600, the plague was the primary indication to the closure of canals and open sewers, promoting a new idea of the city, which would eventually expand urban spaces allowing for better aeration while avoiding too much closeness between citizens.

In 2020, what kind of transformation will the public spaces of our cities move towards?

The new normality, social distancing

As true as it is that it's in our nature of "social animals" to spend time with others and to participate in collective experiences, it is also true that more than likely a concept such as aggregation will be experienced differently. Social distancing is the first precaution in order to protect everyone's well-being and health. The sectors of hospitality, entertainment, catering and trade will necessarily adapt their space in order to abide to the new regulations, all while favoring the use of materials and equipment that can guarantee constant sanitization. As a result, gathering and open spaces will need a little rethinking too.

From smart city to safe city

In recent years, the urban agenda has been dominated by smart cities. The smart project saw us undertake an unprecedented digital challenge and include technology in all urban scopes, from public squares to paths, transportation systems and service fruition, in a constant race towards connection and tech.

Nowadays smart is not enough though. The next step we need to take is towards a safe city: a urban model in which technology is in active dialogue with the safety and control requirements of the spaces, in order to re-establish a sense of serenity for inhabitants. Data instruments shall also help us identify infected individuals as well as those that are at risk (elderly and citizens that carry multiple pathologies): a privacy issue that we'll need to outdate in favor of a condition of detectability (where detectable is the medical term for the ability to identify viruses in the human body). Such new approach then will necessarily have to merge these two concepts, smart and safe, to guide us into urban planning.

At a macro level of urban growth in its entirety, it'd be advisable to think about multicentral cities, far from the megacities we witness nowadays. Completely functional cities distributed over several areas in order to guarantee adequate services to citizens, avoiding concentration of all activities in a few central urban areas (education, trading, health services, local welfare), while promoting a sustainable transportation system.

A possible evolution model for sporting venues

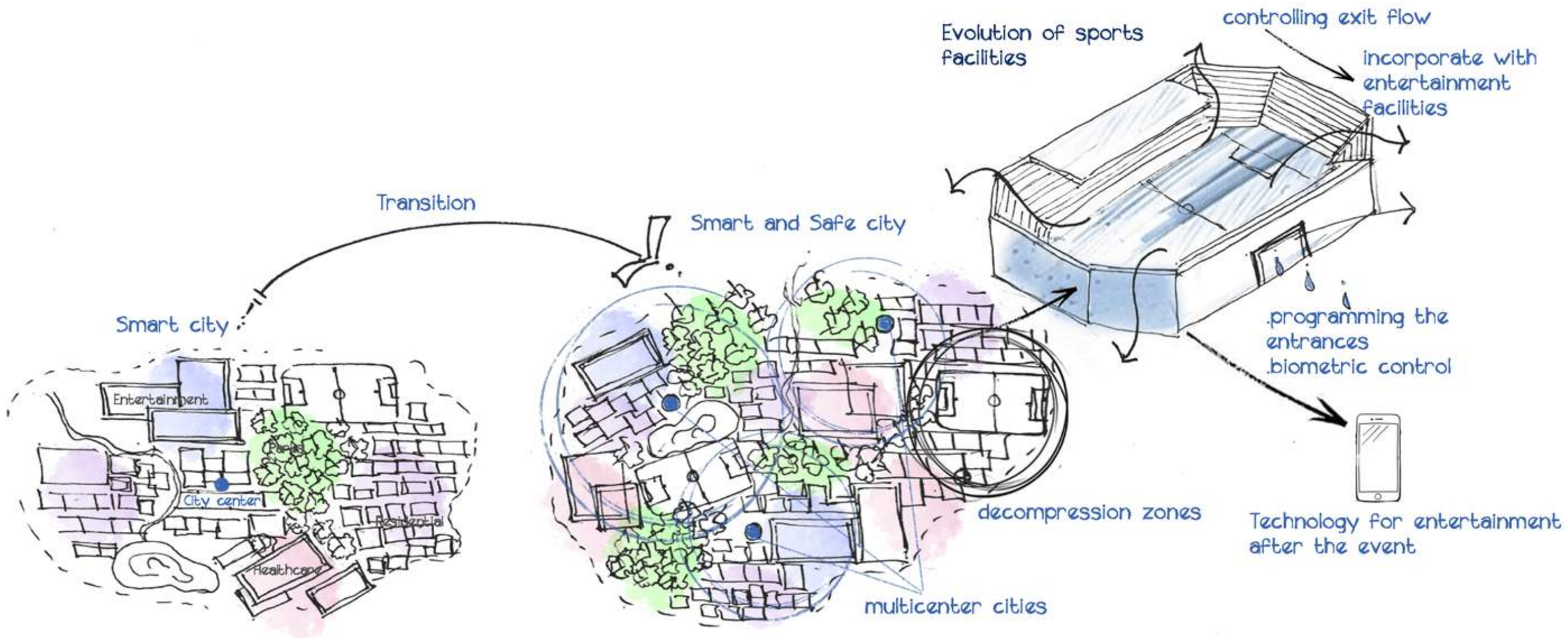
Gathering spaces have to be rethought, including those devoted to sporting events, so that users can start enjoying them again with ease and in safety. For sporting venues specifically, we might think of a different management, more rigorous and capillary, of those moments in which large gatherings typically form, like while entering or exiting the structures.
Entrances might be fractionated and programmed, through reservations of different time-slots, allowing thorough controls, including body temperature and biometrics while passing through the turnstile. At the end of the sporting event, simultaneous exit of all the audience can be avoided by anticipating smaller groups, creating a solutions in order to entertain spectators at the end of the match: for example, dedicated apps could broadcast the highlights of the match directly on the users' device, as well as interviews and exclusive content featuring lead players, or foods and drinks could be ordered to then be ready when at the arrival at the bar or restaurant inside the sporting venue.

With this is mind, the presence of support spaces and containment spaces that can offer people several services prior to exiting the venue becomes crucial: complimentary functions and services are the key to this system working efficiently. Focusing on offering a diversified experience, one that might include retail, entertainment, museums, catering services and parks is increasingly important: these are all decompression areas, where people can relax without running the risk to be all grouped in one place. Among the features that should be made available, offering additional services such as diagnostics and medical assistance, might be interesting for a variety of purposes: offering healthcare activities during the workweek, guaranteeing safety for the audience during the event and to allow structures to be used as reception centers if necessary during exceptional healthcare emergency situations, when there's the need to provide strategic support to hospitals. In order to guarantee the safest and most salubrious experience possible, the decision to open the venues at a limited number of users cannot be ruled out, at least in the beginning, so that they can sit at a minimum safe distance.

Developing the project's team competences

With a view to the evolution for the way we inhabit collective spaces, but also personal and private spaces, architect-client and architect-supplier relations must be inevitably reevaluated. Competences and knowledge of all subjects involved have to be integrated to reach solutions (architectural, estate, technological) that take into consideration all needs, but first and foremost those of the users for which we are designing the spaces.

Change is ahead of us, as are new habits, new dreams and new necessities. Martin Luther said: "If you want to change the world, pick up your pen and write". Designing a new way of inhabiting and growing our cities might be the pen that will accompany us during this transformative process, while we aim at drawing spaces truly inspired by the needs and expectations of who will live them.


Transition
Smart and Safe city
Smart city
Entertainment
Parks
City center
Residential
Healthcare
Evolution of sports facilities
controlling exit flow
incorporate with entertainment facilities
.programming the entrances
.biometric control
decompression zones
Technology for entertainment after the event
multicenter cities

10 MOBILITY

Curated by **MIC Mobility in Chain**

The temporary global suspension of mobility systems highlights the anthropogenic footprint on the planet and demonstrates, above all, the clear impact it is having on the environmental system.

Indeed, the effects of the blocking of mobility following the Coronavirus lockdown are evident on the environment and the table of emissions.

It is therefore necessary to take advantage of this moment to carry out systemic changes in preparation of the real challenge confronting future generations: climate change.

Three changes towards sustainable mobility

Today, it is possible to imagine a systemic change for mobility in three areas. The first entails the switchover of our vehicles from internal combustion to electric motor; the second regards the enhancement of micro mobility and active mobility, in particular; while the third concerns the effect of travel reduction linked to digital connectivity.

Encourage electric mobility

Planning a radical and rapid shift towards electric mobility is a matter of urgency because the current exploding growth rate of the population is matched by an extraordinary growth in the number of vehicles worldwide.

A recent World Bank study estimates that the number of vehicles in circulation on the planet will double by the year 2050, reaching a figure of two billion. It is also notable how the car – in our desynchronized and dispersed society, especially in northern Italy – is reinforcing its role as the principal mode of transport.

In Italy, the country's approximately 37 million vehicles are unfortunately outdated, underlining the troubled economic condition of the country where vehicle renewal has slowed down considerably. In his recent book, the sociologist M. Colleoni points out how transport by car is on the increase and that the story of millennials abandoning the car is only really true of the central areas of Milan and Rome, for the vast majority of the country is increasing its dependence on the car.

Devising a solution for a drastic and significant reduction in car use - in the short and medium term, also in view of the geographical spread of settlements in northern Italy – today appears entirely unrealistic and must be guaranteed at all costs.

For this reason, it is necessary to switch to electric mobility, especially in the light of evidence confirming that the Coronavirus has been driven in part by atmospheric particulate matter for which the combustion engines of conventional cars are largely responsible.

Nevertheless, this transition will be far from easy. Electric cars currently cost much more than those with internal combustion and the required infrastructure in Italy to support electric mobility is sadly lacking. For this to happen and to develop a virtuous pathway with renewable sources, it will require an extraordinary investment plan actively facilitating the renewal of the vehicle fleet, along with the gradual replacement of internal combustion vehicles in favor of electric vehicles.

Enhance micro mobility with the construction of ‘light networks’

The second point concerns micro mobility and, in particular, active mobility, for pedestrians and cyclists.

Cities, once travelled on foot and by bicycle, were gradually occupied by cars in the post-war years. Over time, there has been an extroversion of the urban space in favor of the car: pavements have been narrowed, pedestrian crossings have been reduced, and even the green phases at traffic lights have been set up to favor vehicular flows. It is necessary to imagine a new generation of infrastructure to be built with the same impetus with which the extraordinary venture of the Autostrada del Sole (the motorway from Milan to Naples) was successfully completed in the 1960’s.

It is crucial, accordingly, to rethink of our cities as ‘light networks’ overlapping the existing road network, facilitating and enhancing micro mobility.

The term ‘light networks’ refers to the progressive spatial redistribution on an urban scale in favor of sustainable modes, a comprehensive and widespread system of crossings which favor the desired lines, comfort and safety of soft mobility.
This new infrastructure network can effectuate a sort of ‘induced demand’, that is, the generation of a demand for bicycle and pedestrian mobility which at the moment is not evident precisely due to the absence of adequate infrastructure.

Enhancing digital connectivity to reduce the number of per capita movements

The third challenge, the most complex but also the most exciting, is the gradual reduction of the need to move through the development of digital connectivity. It must rely on a new infrastructure network, guaranteed by the arrival of 5G.

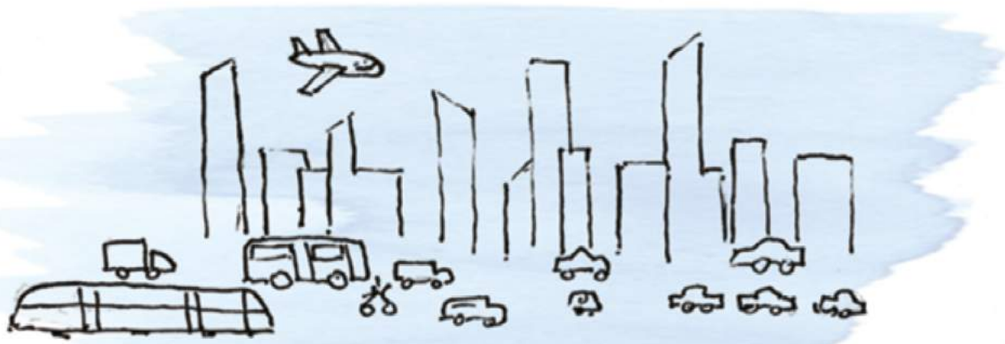
The relationship between travel demand and service supply is a fundamental element of transport theory. The arrival of low-cost airlines offering cheaper flights has generated a new demand, for which there is a corresponding supply at very favorable prices.

In the same way, it is necessary to think of a new generation of digital connectivity that surpasses the current videoconference system, which is incredibly obsolete if compared simply with the level of connectivity offered by a standard online game console.

Owing to the development of immersive techniques, it will consequently be possible to imagine productive meetings with articulated communication, even if virtual: the so-called ‘digital handshake’.

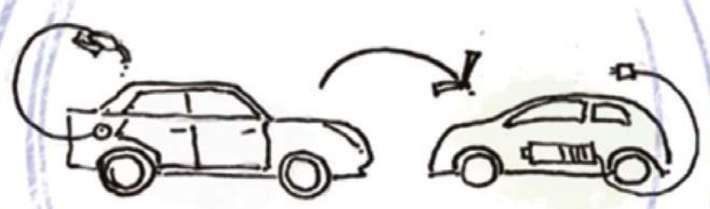
With the advance of technology, it is possible to imagine reducing some of our movements, perhaps not those relating to social iterations, but those related to entertainment and business travel.
In addition to the shift towards electric mobility and the enhancing of active mobility, it is ultimately time to reduce the exponential number of kilometers travelled per capita, by reducing the total number of journeys typical of recent decades.

In the end, the conclusion to be drawn from this crisis is linked to the true challenge expected for the future, that of climate change. It will need to be met with an understanding that the best and most sustainable way to start up again in the big cities can only be through mass **public transport, supported by soft mobility and the progressive electrification of private vehicles.**



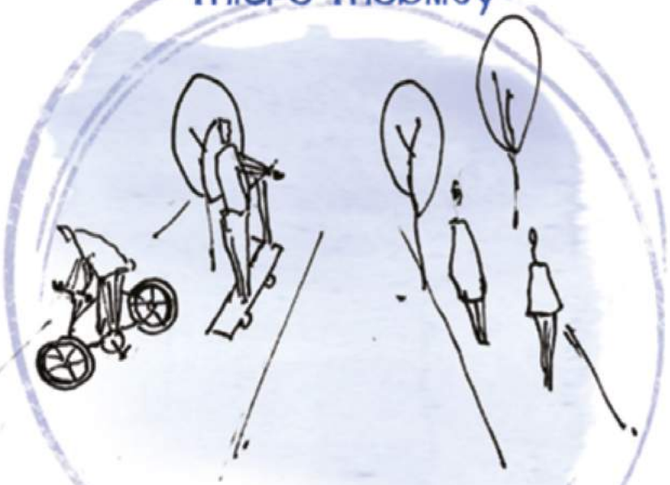
rethink the cities

switch to electric mobility



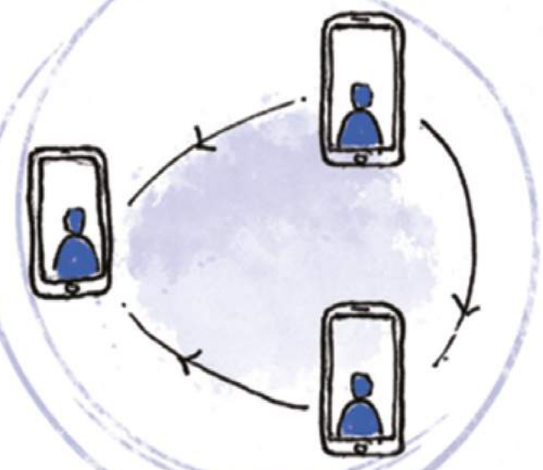
- supported by an investment plan
- environmentally friendly

micro mobility



mobility spaces, inclusive for all

reducing travel with "digital connectivity"



new infrastructure network by arrival of 5G

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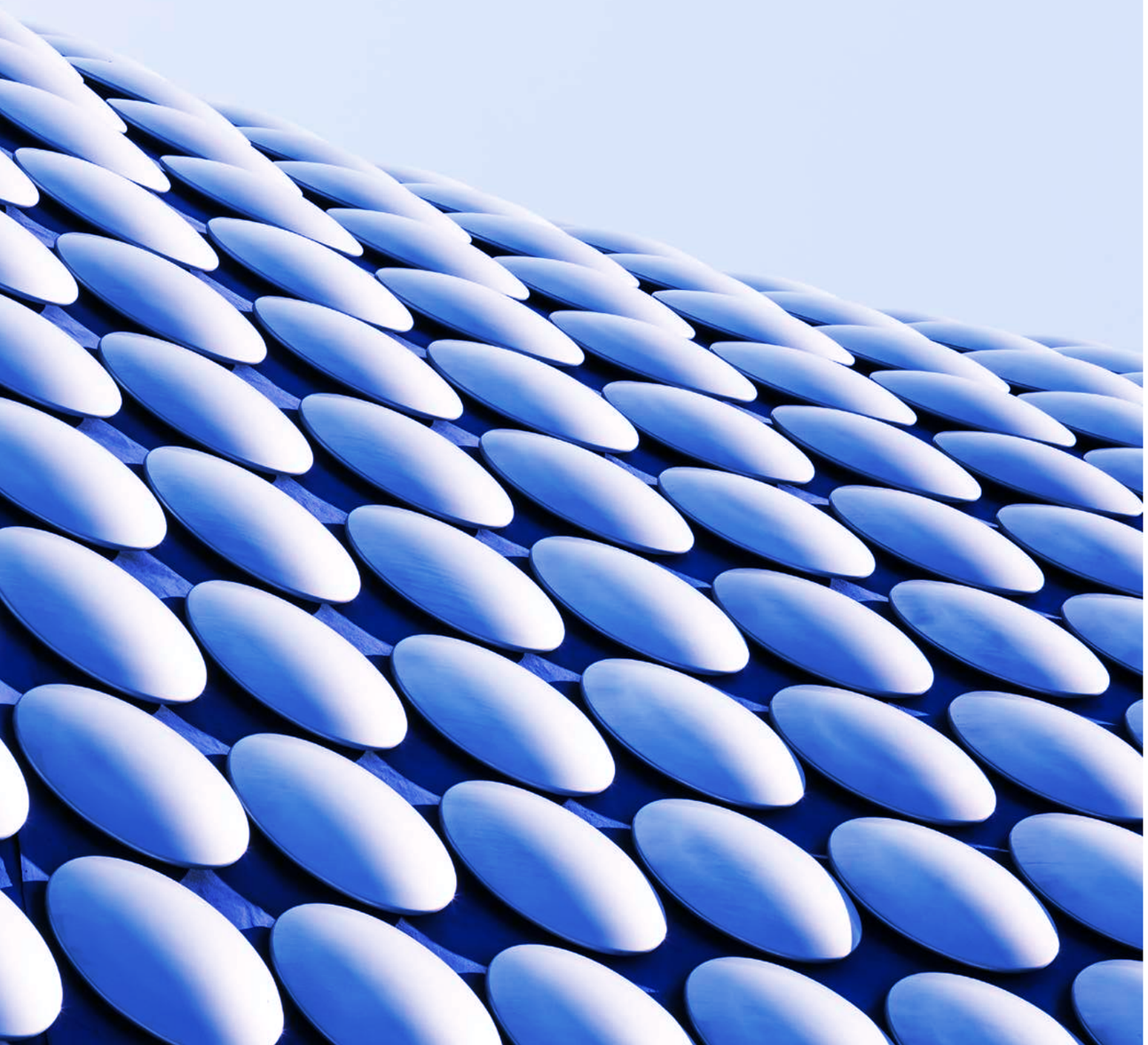
11 SUPPLY CHAIN

Curated by **PwC Italy I Operations**



With Covid19 outbreak, even those who are not a supply chain expert or do not work in this area have increased their knowledge of this subject. We all linked supply chain to the fact that some shelves of our supermarkets are full while others remain empty. E-commerce giants that before Covid-19 used to have the shortest delivery time, today are struggling to keep the pace, with low reliability of promised dates.

As the international response keeps growing, we know that organizations are facing potentially significant challenges to which they need to respond rapidly.

Today companies try to pursue “resilience”. Supply Chain resilience implies the ability of a Complex Adaptive System (CAS) to react to external factors and adapt itself to stay competitive in today’s rapidly changing environment. In a complex adaptive system, the first step to be taken is to establish a principle of coherence its various subsystems must strive for.

In the value chain context, this principle is related to the consideration and promotion of the relevant information and material flow. This means that companies not only need to rapidly obtain the relevant information, but they need to have an adequate response system that prioritizes the velocity of the goods with clear and reliable customer demand. And the flow velocity should not be related to the last mile only but within the entire end-to-end value chain.

How to respond in the immediate future

In the short-time frame, it is obviously necessary to keep a very pragmatic approach oriented towards employees, customers and supply chain partners. At the beginning it is necessary to use an extremely reactive approach and to increase the frequency of the “demand vs supply” rebalancing cycles. This allows to quickly reflect rapid changes and decide how to respond in accordance with the situation involving market, internal resources and cash flow.

In the medium term, i.e. during the recovery phase, it is necessary to gradually adopt a more proactive approach with the final aim of implementing, in the long time, a structurally solid and resilient system

***Figure 1:** Approach for a resilient Supply Chain*

Short-term actions aim to stabilize the situation by limiting damages, but they also need to be consistent and lay the foundations for long-term actions. For example, it is necessary to re-design the workstations in order to respect safety distances while maintaining productivity; digitize critical resources and / or processes in order to limit contacts with other departments or to guarantee a remote access to people involved in the planning and execution processes; carry out an assessment of the impact and the risks associated with Covid19 in accordance with the various regulations issued by competent authorities; perform a rapid screening and implement a relationship management plan with supply chain partners; enhance the e-commerce channel.

How to respond in the medium- to -long term

The companies that have already introduced all or some of the initiatives designed to build resilience in their value chain through the implementation of the basic principles of complex adaptive systems management, will better manage the shock and will emerge strengthened from the crisis because of the ability of absorbing market share from the companies that will succumb.

Concretely, the directions to follow have not only the aim of using technologies, but also and especially of implementing methodologies that can provide robustness and adaptability. The current situation requires rethinking the supply chain in a more sustainable perspective from a social, economic and environmental point of view.

Top priority areas are:

- **Visibility: Increase cooperation between value chain partners** (suppliers of goods and services, and customers), in order to limit variability and allow all actors in the supply chain to have available reliable real-time data. This is the area in which the new “Industry 4.0” technologies can make the major contribution.
- **Scenario Modeling: the ability to evaluate and redesign the Supply Chain footprint** taking into account the entire end-to-end value chain including tier 1, tier 2. The current emergency highlighted the limitations of off-shoring since the beginning of January 2020 when many of our companies were facing shortages of supply from China. Future right-shoring choices will have to be carefully evaluated considering not only cost and efficiency parameters but also reliability and flexibility. The process of generating and managing contingency plans for the different areas of corporate risk also falls within this area.
- **Robustness and Responsiveness** of the “Supply” Operating Model: it is of fundamental importance that the information that are quickly acquired by the company thanks to the new technologies, are fast processed and effectively used. We observe that it is often on this point that many companies fail, believing that having “real time” information triggers the right answer in the internal response system. We know that traditional planning engines (starting from the MRP) do not manage very well constant updates of priorities caused by sudden changes generating nervousness along the supply chain. To address this problem, many companies have focused on the use of new production planning and management methodologies based on the timely reaction to real customer demand orders only (Demand Driven MRP). This approach, based on Complex Adaptive Systems Management Theory, allows those companies to reduce the variability through the strategic positioning of decoupling points along the value chain, making it possible to maintain a stable and reactive planning with positive effects on the reduction of stock levels, the increase of responsiveness and customer service level and the reduction of order management cost

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12 SOCIAL INNOVATION

Curated by **PwC Italy I New Ventures I Innovation**

The design of the spaces for the Real Estate sector aims at encouraging the development of a place capable of placing projects in their context, in order to facilitate cross contamination, communication, dialogue between the built and living souls of the city. (R. Sennett).
The city fully represents the concept of “field” defined by Pierre Bourdieu, that is the physical space set up to work on the definition of a new paradigm of society. This paradigm is able to determine forms of cooperation according to a shared aesthetic and moral dimension and to a dialectic contrast between the different elements that characterize the “field”.

The city is the place where we can find a new kind of language in which individuals recognize themselves, since “Our language can be seen as an ancient city: a maze of little streets and squares, of old and new houses, and of houses with additions from various periods; and this surrounded by a multitude of new boroughs with straight regular streets and uniform houses... And to imagine a language means to imagine a form of life.” (Ludwig Wittgenstein).
The union of these two elements defines the concept of the city based on language. This concept represents a new conceptual paradigm, recalling vocabularies that make the process of abduction the principle of a pragmatic experimentalism, in which interpersonal relationships define metaphors recognized and accepted by individuals.
In this context, for the Real Estate sector and for all the actors involved in Urban Design, it is fundamental to rethink the way neighborhoods and cities are conceived, that provides the ground for Social Innovation. This involves the need to design a concept that can generate an identity, becoming a place with positive impacts on the community, through Social Innovation and urban renewal initiatives.

Social Innovation as the new driver of development

The application of the Social Innovation concept in Real Estate aims to achieve a positive social impact on a target community and to improve the quality of people’s life. For this reason, it is necessary that Social Innovation becomes the main driver of Real Estate development, replacing the classic economic drivers that until now have guided the sector.
This innovative business model is defined as Social Entrepreneurship and it is linked to the need of driving change by emphasizing the social benefit and the impact of its mission, without necessarily renouncing to generate income.
In this context, it is important that the city makers and the actors involved in Real Estate projects follow this approach in order to respond

to a social need. They must act as real “choice architects”, designing an environment that helps and leads citizens to make decisions that improve their quality of life, through a nudge.

Social Innovation practices include a deep understanding of the emerging needs of society and individuals and they are based on multiple dimensions of sustainability: economic, social, cultural and environmental dimensions. All these elements should influence Real Estate choices and their expected economic impacts so that it could be possible to respond specifically according to the community’s needs.

The Open Innovation paradigm applied to the cities design

The challenge consists in creating “unique” initiatives typical of the area of reference through an Open Innovation methodology, based on collaboration and co-design concepts, in order to create a shared and positive community spirit.
To meet this challenge, first of all, it is necessary to investigate people’s needs and requirements. Consequently, it is necessary to activate social, economic and ethnographic research methodologies, also by questioning the community of reference and collecting relevant feedback through the use of collaborative platforms. Only through this process of investigation is it possible to identify priorities and significant actions to be taken in order to have a sufficient awareness of where and how to intervene.

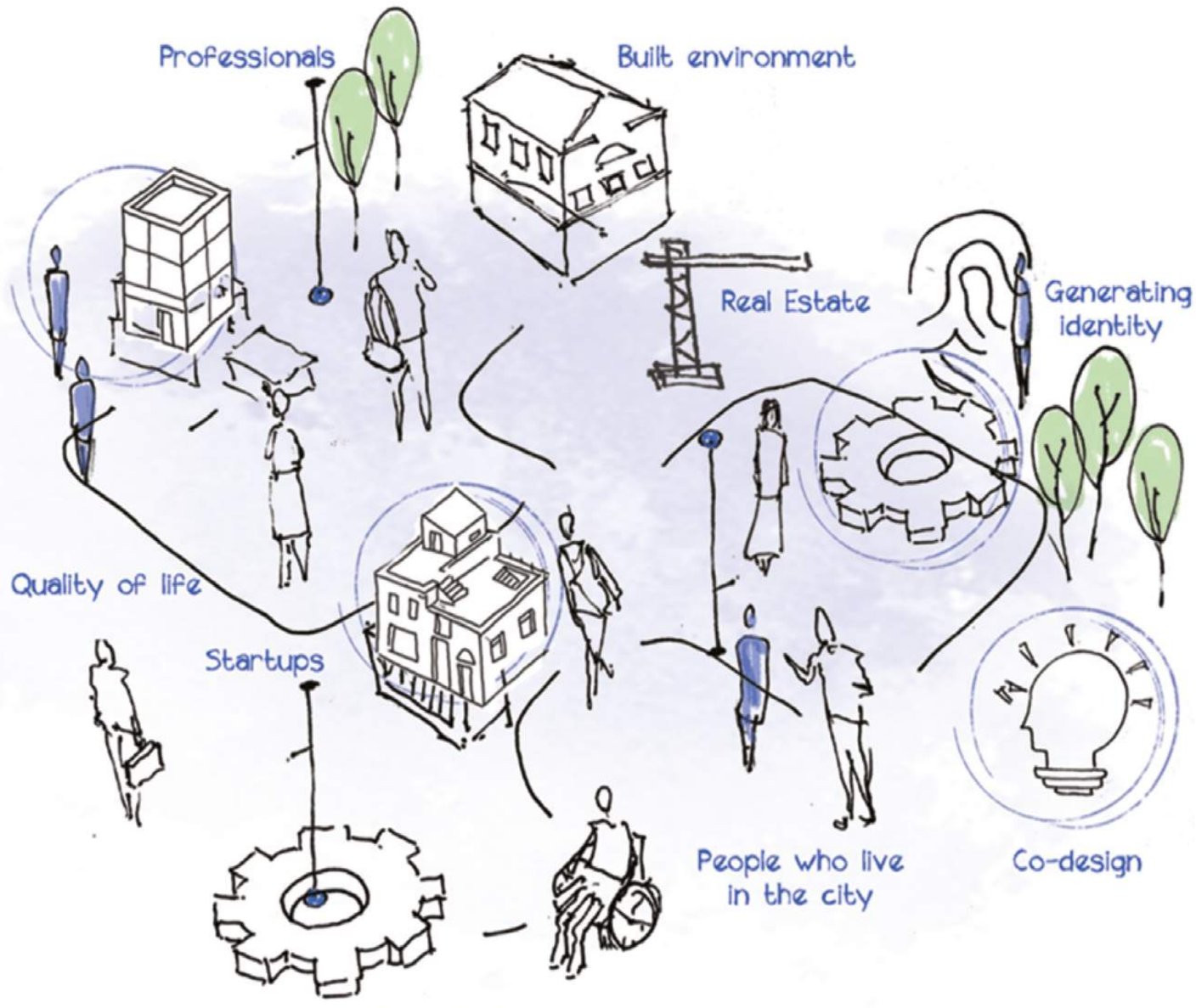
Thanks to the Open Innovation paradigm, it is possible to foresee the development of solutions through the involvement and collaboration of different actors. It is therefore necessary to create an ecosystem with the aim of identifying potential collaborations and opportunities for strategic partnerships set to exchange and enhance the skills, assets and needs of the actors involved.
This kind of ecosystem allows Real Estate companies to enhance their innovative capabilities, to access new and different resources and to encourage the creation of relationships and collaborations between different actors in order to share knowledge and activities.
Moreover, Real Estate development must valorize the role of the community, not only as a beneficiary, but also as an actor that participates in the design of innovative solutions.
The great advantage of this model of development and co-design is the potential to diversify and enrich the responses to social needs by offering the opportunity to create unexpected innovative solutions, which are independent from traditional Real Estate speculative or regulatory choices, but capable of anticipating and overcoming the regulations themselves. The result is the generation of a new knowledge, which calls into question the traditional models of Real Estate development.

A new Social Innovation Framework

This collaborative approach prevents the city designers from the risk of designing solutions that are not reflected in people’s everyday life and that often ended as conceptual experiments. For this reason, it is important to retrace the French hendiadys used by Sennett to describe the two sizes of a city: the ville and the cité. The ville represents the built environment, the physical part, while the cité, the inhabited city, the fabric of social relations. To use his words “the built environment is one thing, how people dwell in it another” (R. Sennett). It is impossible to understand the physical aspect of a city or a neighborhood without considering the social fabric that inhabits it. For this reason, the ville must develop in the city, and not vice versa. In this sense, it is appropriate to speak of Social Design Re-Description, according to an approach whose aim is to define a space where individuals can create a common language that enhances personal and social relationships.

In this context, urban renewal and Social Innovation projects meet the needs and difficulties of different social actors and co-design innovative and technological solutions so that citizens have a better quality of life and can return to a positive experience of the city and its neighborhoods. In order to foster this co-design methodology, it is important to establish collaborative approaches, to put the focus on citizens who benefit from the positive elements derived from the impact of urban renewal.

The result of this approach is the definition of a new Social Innovation Framework, in which space, environment and community become interconnected ecosystem realities, which feed off each other creating a common language where social relations, technological trends, ethical and sustainable principles become the pillars of a new model of Real Estate development.



A city designed through the collaboration of everyone leveraging on Open Innovation approaches

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13 EDUCATION

Curated by **School For Dreamers**
In collaboration with **International Experiential School, Fondazione "Educatori del terzo millennio"** and **Generation Warriors**

Going to school, going to deepen one's knowledge and grow as individuals and as citizens, too frequently is experienced exclusively as a duty, an obligation.
The time has come for a courageous project: say enough to an archaic and plastered system that reiterates a 70-year-old model that can no longer work with the next generations or with that of our children and young people because it is no longer in harmony with the present no longer reflects it, both from a technological, social, environmental and energetic point of view, but also spiritually. It is a question of awareness: putting the child, the human being, back at the center with his needs and weaknesses and with all his extraordinary potential.

A school open to new content

New disciplines are added to the more traditional subjects, revised in content, if necessary reduced, and carried out in an innovative way such as native and foreign languages, mathematics, physics, history, civic education, geography, philosophy and literature...
As for example: the study of the great thinkers of all times and of the dreamers of the past and present, creativity in doing, in painting, in playing an instrument, in singing, in writing, the study of oneself, the discovery of one's talent and dream, the lessons of happiness, the deepening of universal principles and laws.
In addition, entrepreneurial skills are included, such as planning and concretely achieving one's objectives. The study of Beauty is expected, taking advantage of the great potential that our country offers, the activation of civic / environmental education modules, which are crucial for raising the level of awareness and participation in public life.

A school open to the insertion of new reference educational figures

The school is a place that develops everyone's demand to respect others' times and ways of expression, to grow through comparison and cooperation, rather than confrontation and competition. They include: teachers, specially trained managers and local entrepreneurs who become new teachers; coach and counselor who follow all the psycho-aptitude development, researchers in the various fields of technology, medicine and biology but also IT; exponents of the theater teams, from the directors to the costume designers and to all the technicians, who can open the vision of young people to new job opportunities, but above all to the actors who make them understand the art of entering and leaving roles while remaining themselves, and still figures of high ethical and religious level, philosophers, art experts

and enlightened theologians who open minds and hearts to the concept of One Reality, of unique Truth, beyond any apparent separation.

A school open to different ways of teaching and the importance of spaces

The logistics of the new school must be rethought. Virtual and digital spaces are added to the physical ones, which are equally important for relationships and need to be mixed in a balanced way.

An elastic school

The new school absolutely needs to be flexible and ready for rapid changes but it also needs to acquire the value of the slowdown that leads to calmness and vision adjustment, where necessary. Then:

- New dimensions are needed within which learning can take place.
- Minimum time units distributed over the whole day could be assumed, with a mixed use of the physical and digital space attributed to each type of activity, and spread over the course of a more flexible day.
- It is necessary to enhance each area of the school with the vision of flexible and different uses, from aggregation activities in outdoor and common spaces to the rotation in the use of classrooms through the identification of new interdisciplinary paths.
- It is necessary to identify moments and spaces of growth for parents and families, so that all society can evolve to a higher state of awareness and therefore of responsibility.

A creative school

The new school includes the concept of a humanity that creates its own reality through creative thinking, vision and dream. So, you need to:

- Encourage students' introspective ability to bring out needs, desires, values and talents.
- Facilitating the experience of failure to understand that every fall always represents an opportunity and is necessary to strengthen self-confidence.
- Encourage the creation of customized and group courses that allow for in-depth study, study and practice in different areas (computer science, singing, music, painting ...) in relation to the talents emerging from the students.
- Organize creative and design workshops so that students can train in team work, become skilled in setting up and managing start-ups, learning to relate to different professional figures and companies in the world outside the school.
- Setting up spaces for exhibitions open to external companies.
- Generate interactions with the world of work in the area to open up to new training experiences.
- Predict the size of the game, gamification, even in non-playful areas, giving particular attention to the study of strategies.
- To encourage the training of coding, which is crucial in developing a mind capable of programming and therefore of creating.
- Explore and facilitate the generational meeting to eliminate the typical prejudices existing between people of different ages to generate a mutual exchange of skills and experiences.

A solidarity school

Through the school, it is planned to activate concrete actions of altruism in everyday life, from kindness lessons to promoting voluntary actions, bringing the needs and difficulties of the territory within the school. And again, to encourage more capable students to help students with greater difficulties, by creating support groups within the school. It is considered useful to completely break down the section barriers, favoring study and interest groups on the various subjects and disciplines so as to stimulate interaction between all students and no longer only in a single class. In general, it is also necessary to collaborate in the "maintenance" and cleaning of the premises and exteriors to increase the level of responsibility of students for the common thing and respect for the work of others.

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13.1 LEARNING & RESEARCH

Curated by **Six Ideas Learning**
in collaboration with **Lombardini22**

The challenge facing those who have the task of educating is new and unexpected, but the answers to overcome this crisis find their roots in the very essence of teaching and research places.
In learning, the community dimension cannot be eliminated, community life is the origin of knowledge since in it, the thought, through encounter and dialogue, can be expressed in its concreteness.

First of all, teaching is not a service for sale, it is a community that works together with the different protagonists, even at this moment with different methods and technologies. The school that resists and that manages to do its job is the one where there is a strong integration with the students, who feel involved and part of the community.
In the future scenario after Covid-19 it is essential to safeguard relationships and active participation even in the absence of a physical location, or with a physical location reduced in its potential compared to yesterday's experience.

The challenge today is to recognize and deepen this educational task through a new virtual community.
This period can result in a powerful accelerator of change already taking place. It leads us to concentrate on certain aspects to deal with right now.

School as relational place

It is possible to experience this situation of physical impediment as an opportunity for virtual meetings and sharing of materials with the various interlocutors of city and society, in a sharing dimension conceived as an expression of contribution and a responsibility towards the whole city, which also actively involves the school, university and research world.
The prospect of a future education open to mutual exchange with companies and societies can begin through virtual relationships and exchanges of knowledge in order to imagine the use of a training space shared with the various protagonists of society and learning experiences on the field.
The forced use of digital and physical spaces characteristic of this period can be integrated to respond to the main need of building a place that generates the awareness of those who live it, and those who learn. The diversification of digital and physical spaces can be a valid ally in order to be able to find in an innovative way the space where each individual can express themselves at best and learn more effectively, provided that, in both cases, it is a "relational space" for each type of activity.

The situation in which we will find ourselves already requires new dimensions within which learning can take place.
We could therefore assume minimum time units distributed throughout the day with a mixed use of physical and digital space, attributed to each type of activity, from individual research to training course.
Finally, the need to enhance each area of the city emerges with the vision of flexible and different uses, from aggregation activities in outdoor and common spaces to the rotation in the use of classrooms in school structures up to the training centers of companies that can have multiple uses.

It is also interesting to analyze the emerged need of “doing research” on specific issues that could lead to investing in potential relationships between universities and companies, especially in this period, in which the different disciplines are forced to dialogue to find effective and common solutions.
Also in the field of research, the mission of not opposing the use of teaching tools which, after this event, will become part of our daily lives, is fundamental, striving to increase involvement and curiosity and to ensure that we learn to use them with awareness, stimulating and helping us to exploit them to their full potential.
The communication method assumes a key role and requires change and openness so that research can represent a more accessible world and its publications an effective working tool.

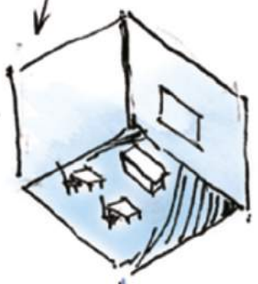
We imagine the creation of a **continuous cycle and dialogue** between the learning and working dimension that aims to build a lasting relationship and that forces a vision of continuous exchange between these realities: from increasing the experience of school-work alternation for students, in order to acquire the necessary transversal skills, up to the development of universities-companies research relationships, which can translate into real collaborations on specific topics.

If teaching should prepare for confrontation with a world that must be inhabited as a physical and digital space, the whole community should experience this new mixed reality. In this way, the opening to the digital world can be enriched by new exchange relationships with the territory: the formation of a creative mind characterized by flexibility and that is driven today more than ever to conceive original ideas and create something new is also essential.
This vision is part of the idea of a space that is complicit, represents this pedagogical and spatial innovation, and goes beyond the boundaries traditionally granted to the world of learning and research.

putting the human being, in the center
and rethink the School of the New Era

A school open to:

adding mentors from society



museum parks factory

using other spaces as
schools

changing the traditional
relationship of
professors and
students

peer to peer
learning

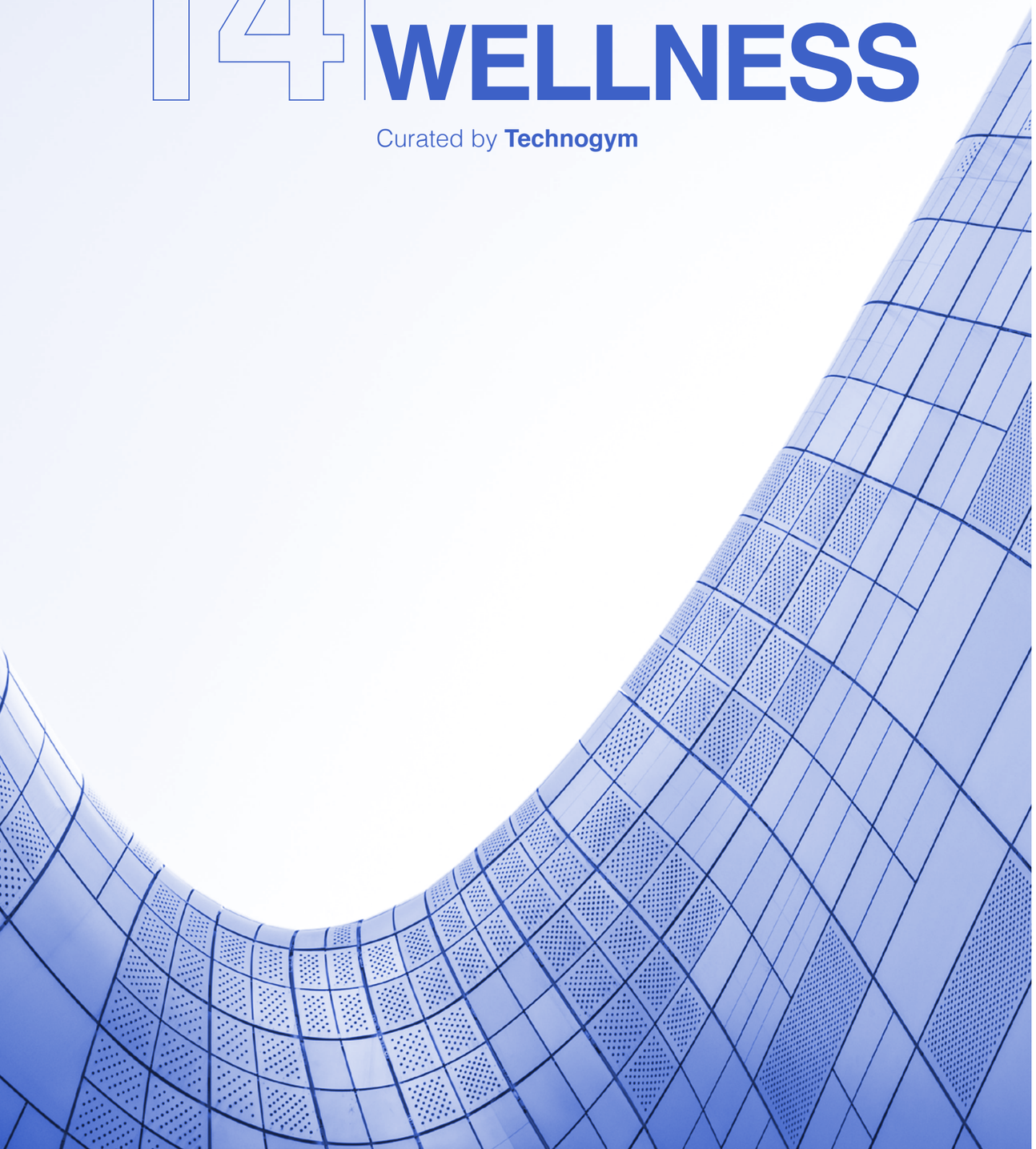
educating the mind
and self awareness

movable walls,
adapting the area to needs,
replacing desks and chairs
according to activity

merging physical and
digital

14 WELLNESS

Curated by **Technogym**



The unprecedented lockout that we have experienced has caused serious side effects for people's health. A much more sedentary life resulted in increased weight and worsening mental condition. In the mid-term this will bring an increase in diseases like diabetes, hypertension and depression.
Given the situation, the good news for us operators are that fitness and health will be in very strong demand on the part of the public. After the pandemic, health has certainly risen to the top of the list of personal priorities and today we notice a consistent demand for wellness and health services. People want to start moving again in a safe way and with professional guidance.

As restrictions are being lifted, as different countries are moving on to phase 2, physical exercise will soon be allowed to resume at gyms and organized facilities. This will happen in respect of the appropriate protocols for prevention and safety issued by the regulating authority on social distancing and capacity of the different areas inside the fitness center.

Fitness clubs (but also sport areas and wellness centers inside hotels and spas) are getting ready to open and be safe places to train and taking care of personal wellness. This is possible through a series of interventions that include the layout of certain areas, digital technologies and conduct regulations for both staff and patrons.

First of all, the layout: training equipment placement will define established positions to ensure social distancing between users. In case the layout of the location is designed with tightly spaced equipment, it is desirable to move them or to allow patrons to take turns. Areas dedicated to classes and group activities can be managed through digital technologies that allow reservations and check-ins but also give the gym goers instructions on the class on big screen, thus reducing the physical interaction with the instructor.

Digital technologies enable clubs to control accesses, manage both reservations and capacity inside the gym. Thanks to featured apps, patrons can reserve their spot at the gym or in their favorite class from home or while on their way to the gym. This simplifies greeting and checking operations, avoiding waiting in line and give a sense of security to the client. Without any doubts the pandemic has given a strong acceleration to the digital revolution in all sectors, including the one of fitness clubs: In 5 weeks we have made a 5-year leap in terms of innovation.

In general, the lockdown has taught people how to enjoy their favorite products and services in different ways and places: from the blast in e-commerce to the delivery services that is no longer limited to products but it now includes true experiences, to events and

communication activities done remotely.
With these new models of fruition, home fitness and physical gym are not competitors anymore but allies: home and outdoors have become the new market for fitness and wellness operators. In this market, thanks to digital technologies and linked fitness products, they can offer and sell services and training experiences.

large screens to reduce physical interaction with the instructor

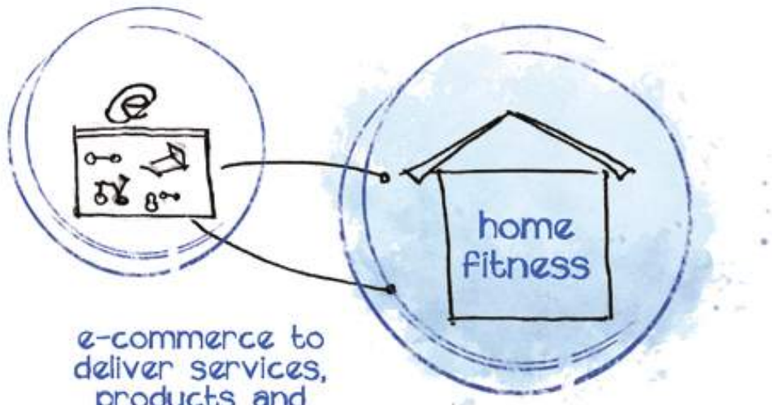
the placement of training equipment defines precise location for each person to ensure social distancing

Digital technologies

- manage the accesses, reservations and capacity of the center

- avoiding queues and giving the sense of security

offering training services to customers at home



e-commerce to deliver services, products and experiences

15 BEHAVIORAL DESIGN

Curated by **Il Prisma**
In collaboration with Professor **Carlo Galimberti**
and Designer **Luciana Gomez**

One of the ways to approach architecture and design is to consider man and his relationships as the center of the project. This man can be the protagonist as a visitor, as a citizen, as an employee, the final user of the architecture and objects. The most important aspect is to understand the needs, ambitions and inspirations able to guide the interlacing of the subject, its interlocutors and the world in which they meet. For this reason, a good approach can be to intertwine the point of view of architecture with that of social psychology.

In order to offer a reflection on what will change after Covid-19, it is interesting to structure a work process that seeks to identify some possible scenarios, their psycho-socio-anthropological characteristics and the reflection on spaces. These scenarios are not mutually exclusive, but they can coexist in our collective imagination. They could generate shared representations and evaluations on government work, and they could guide our decisions in the immediate future.

Matrix of possible scenarios

By way of example, it can be useful to identify three scenarios. The first in which a return to a pre-pandemic reality is envisioned. The second, on the contrary, in which nothing will be like before. This scenario highlights the presence of a traumatic event, in which hidden chunks/parts/elements [of one's personal history] are revealed without being processed. The impossible is idealized (Utopia) and probable is ruled out. The last scenario is that in which trauma is processed: life goes on and requires us to elaborate on what happened and learn from our experience. This scenario requires us to work on the internalization of social distancing, evaluated as an emotional, relational, pragmatic-functional experience.

Resilience and organizational capability.

To be effective, a reaction to highly-menacing challenges such as pandemics, requires resilience, reaction capacity, systemic awareness and, above all, organizational capability. This capability must be necessarily like "variable geometry" that means to be able to continually restructure itself depending on the changes of external conditions. Picturing what will be the consequences in the architecture, the third scenario will lead us to elaborate social distancing through a continuous regulation of distances. Flexibility will play a fundamental role; spaces that will be able to accommodate a flexible use thereby helping the capability to offer a constant regulation will be the most suitable for the next phases. The architect's task will be to train himself

or herself to understand the needs of the future users by using those insights into design.
The idea therefore, considering a range of possible solutions suggested by the variables explained previously (i.e., distance, flexibility, different cultures, relationships, processes, etc.), is to set up a new project methodology and a way to manage it. Understanding the needs of groups and the people involved in the different phases will be even more fundamental. In addition to spaces comprehension, the architect will probably have to consider the entire life experience. This experience must also be structured in order to help work on the trauma caused by pandemics and overcome it.

Possible futures

In a scenario where the trauma gets processed, one can't help but wonder: what will remain the same as today and with what consequences? Sustainability will probably play an important role: it will become the driver with which we may choose experiences because closer to reach.

After having experienced technology's strengths and weaknesses on empowering different sorts of activities, it's role may shift to some degree. In this scenario, we will probably be pushed towards a stronger environmentalism, even if just enhancing the use of sustainable means of transport (bikes and cycle paths). Processing the trauma will likely bring us to start and really work smarter, with real flexible hours. If so, it will force us to rethink the role, goals and meaning of our workplaces. For instance, workspaces may play a different role in our work life, and have to host a different range of activities than they had so far. If the pandemic taught us to work remotely, some individual activities will probably continue to take place elsewhere. Therefore, for those companies who might want to keep their square meters working, the office will need to become something different from today.

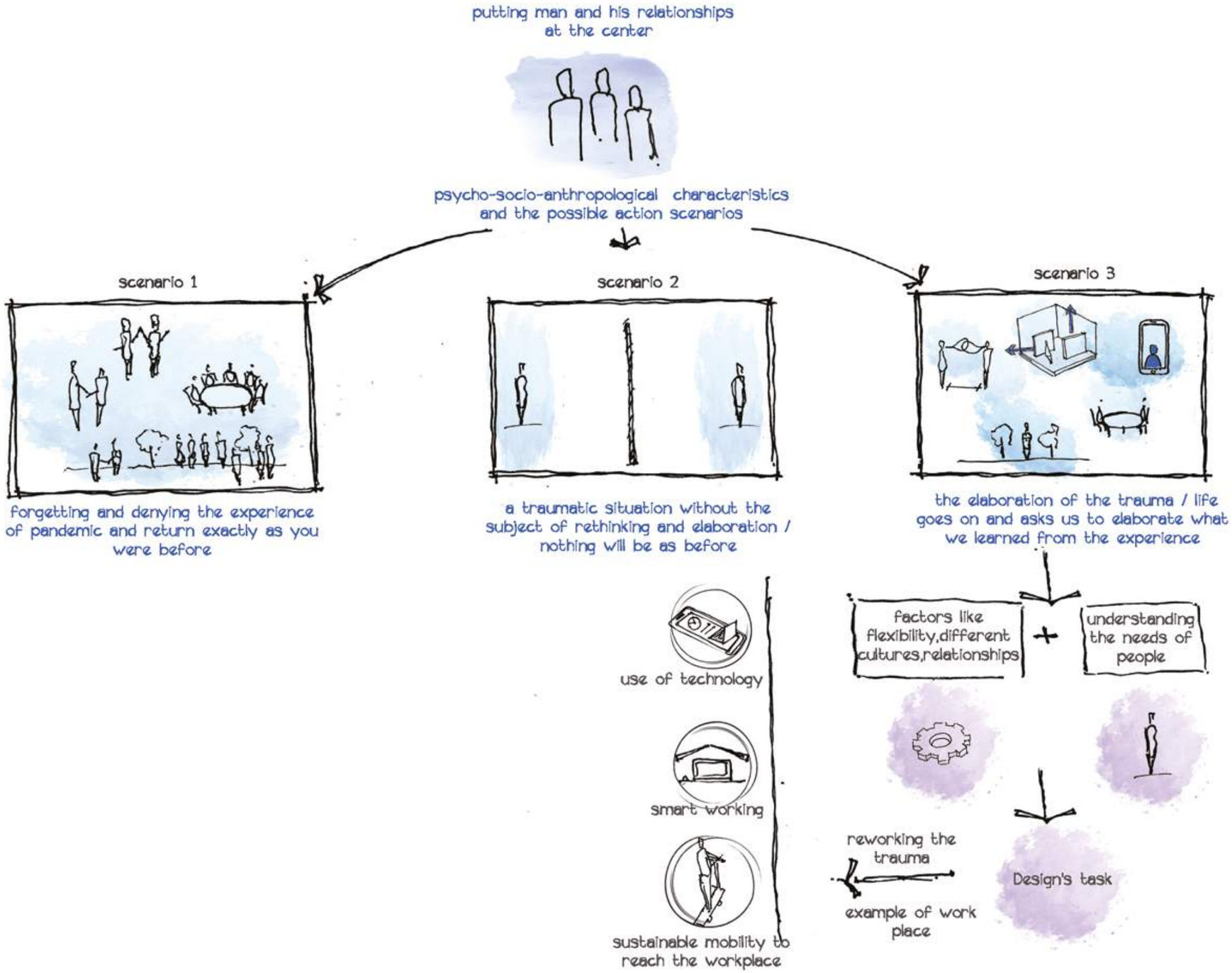
Trying to apply the method to practical cases, we analyze the scenarios in public offices, a particularly significant sector both in terms of figures and of actual impact for people, also referring to public services and in particular to the use of public transportation.

The objective of the public administration and companies to which the management of public services is entrusted - such as transport - will obviously be to deploy all possible resources to encourage responsible behavior as much as possible in line with the third scenario.
The interventions will have to be focused in particular on three aspects:

1. Operators training: all public and private employees who will be entrusted with direct, physical and virtual contact with the citizens who use the services must be properly trained in order to acquire effective interaction skills, both in explanatory terms (correct communication of processes and methods) and handling of any critical issues (management of behavior relating to scenarios 1 and 2).

2. Enhancement of Wayfinding design: citizens must be correctly directed towards the desired behavior by way of simple and effective visual communication that takes into account as much as possible a wide range of specificities (differences in language, age, education and any disabilities). This signage must be integrated within the spaces in order to create real visual accompaniment paths.

3. Online/social communication: official websites and social channels will carry out a further and fundamental accompanying activity. In addition to effective management of the information published, it will be crucial to ensure adequate response times that make people feel sufficiently supported.


putting man and his relationships
at the center
psycho-socio-anthropological characteristics
and the possible action scenarios
scenario 1
scenario 2
scenario 3
forgetting and denying the experience
of pandemic and return exactly as you
were before
a traumatic situation without the
subject of rethinking and elaboration /
nothing will be as before
the elaboration of the trauma / life
goes on and asks us to elaborate what
we learned from the experience
use of technology
smart working
sustainable mobility to
reach the workplace
factors like
flexibility,different
cultures,relationships
+
understanding
the needs of
people
reworking the
trauma
example of work
place
Design's task

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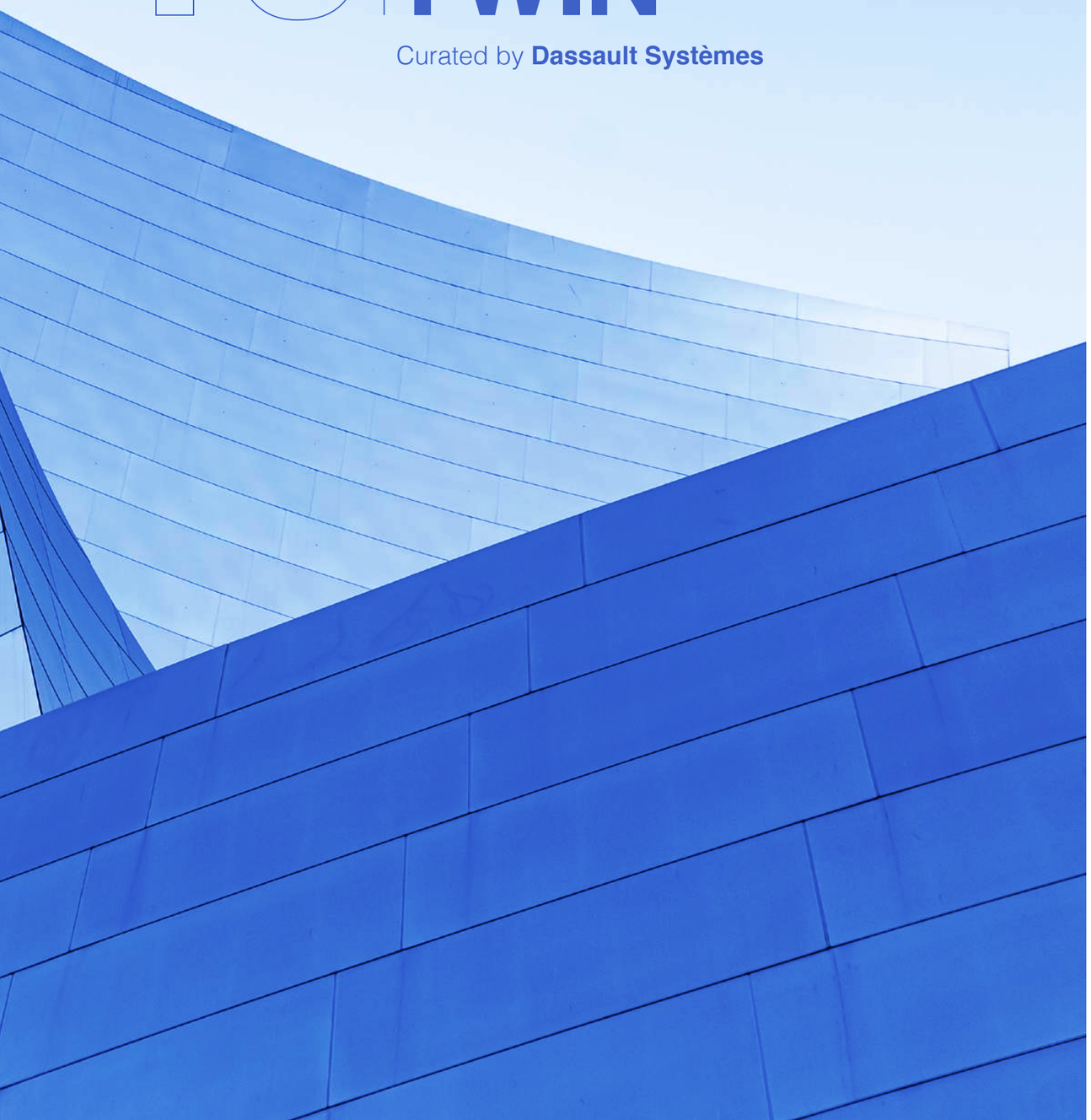
16 VIRTUAL TWIN

Curated by **Dassault Systèmes**



The city as the hub of Social Innovation and the favorite place of Real Estate with a focus on the regeneration and requalification of public and private spaces is a complex ecosystem that must harmonize human, environmental and economic sustainability. As such, it needs tools to enable design, development and *facility management* with a democratic and inclusive Open Innovation approach.

Collective intelligence must be assembled and put to fruition, supporting dialog among different visions, harmonizing countless requirements and constraints in terms of quality, engineering and regulation, while keeping the focus on the ultimate project goal and reconciling the efforts of all players to the primary objective: creating a smart context that works under normal conditions, emergency situations and “new normal”, providing tools to streamline bureaucratic, compliance and approval processes.

In this respect, digital platforms enable and expand collaboration, providing an ideal environment for the management of smart cities. As a result, the city can support the interplay of systems and harmonize the dynamic contribution of the entire ecosystem, of multiple public and private players, with different roles and skills, who are expected to innovate together.

Smart cities have been developed in response to exponential population growth trends, to combine technological progress with modern policies to improve the quality of life.
Every day, a wider approach should be identified to deploy a holistic strategy that is able to take into account all data collected from the territory as parts of a structured system, i.e. an integrated IT platform.

Collaborative Platform

A sustainable urban environment is the result of several well-orchestrated variables. Data - collected, organized, integrated and transformed into constantly updated information functional to the shared project - provide the scientific foundation for the development and maintenance of indoor and outdoor spaces, of buildings and services that will meet the real needs of the local community and improve the urban experience.

Digital platforms based on dynamic 3D models and virtual universes enable the generation of Virtual Twins of existing urban experiences, the ability to simulate the operation of potential cities and to experiment entirely new scenarios to test and validate the most desirable smart concept in the medium and long term, as if we were watching it with our own eyes in the real world.

Virtual Twins allow stakeholders to create, analyze and interact with all the elements of the urban landscape, from buildings to green areas, from telecommunications to energy, from infrastructure and transportation to

security services, by simulating with hyper-realistic renderings the behavior, interaction and consequences of shared decisions, in a clear manner for all involved players, thanks to the universal and eloquent language of 3D models.

A constantly updated single source of truth applicable for territories, cities, buildings, exteriors and interiors

The very first step to build a sustainable, resilient and safe future in the private and public sphere, is to establish a digital repository on a scalable digital collaborative platform acting as a single source of information, for the reference of all project players.
In this way, one is able to simulate the impact of economic, environmental and safety/security variables. It becomes possible to compare and optimize project scenarios, leverage real-to-virtual and virtual-to-real feedback loops, increase the knowledge of situations and validate process models over time all with a logic that is applicable to the development and management of a single building, large districts, or up to entire cities including their impact on the surrounding territory.
Collaboration among project-process stakeholders and interaction with real-world data flow into the virtual world, helping the planning and implementation team to understand risks and generate interactive models for an urban plan that delivers continuous improvements.

The digital continuity of the construction process ensures a clear communication of project goals and its execution methods across the construction development lifecycle, so that all stakeholders can understand it and effectively contribute to its implementation.

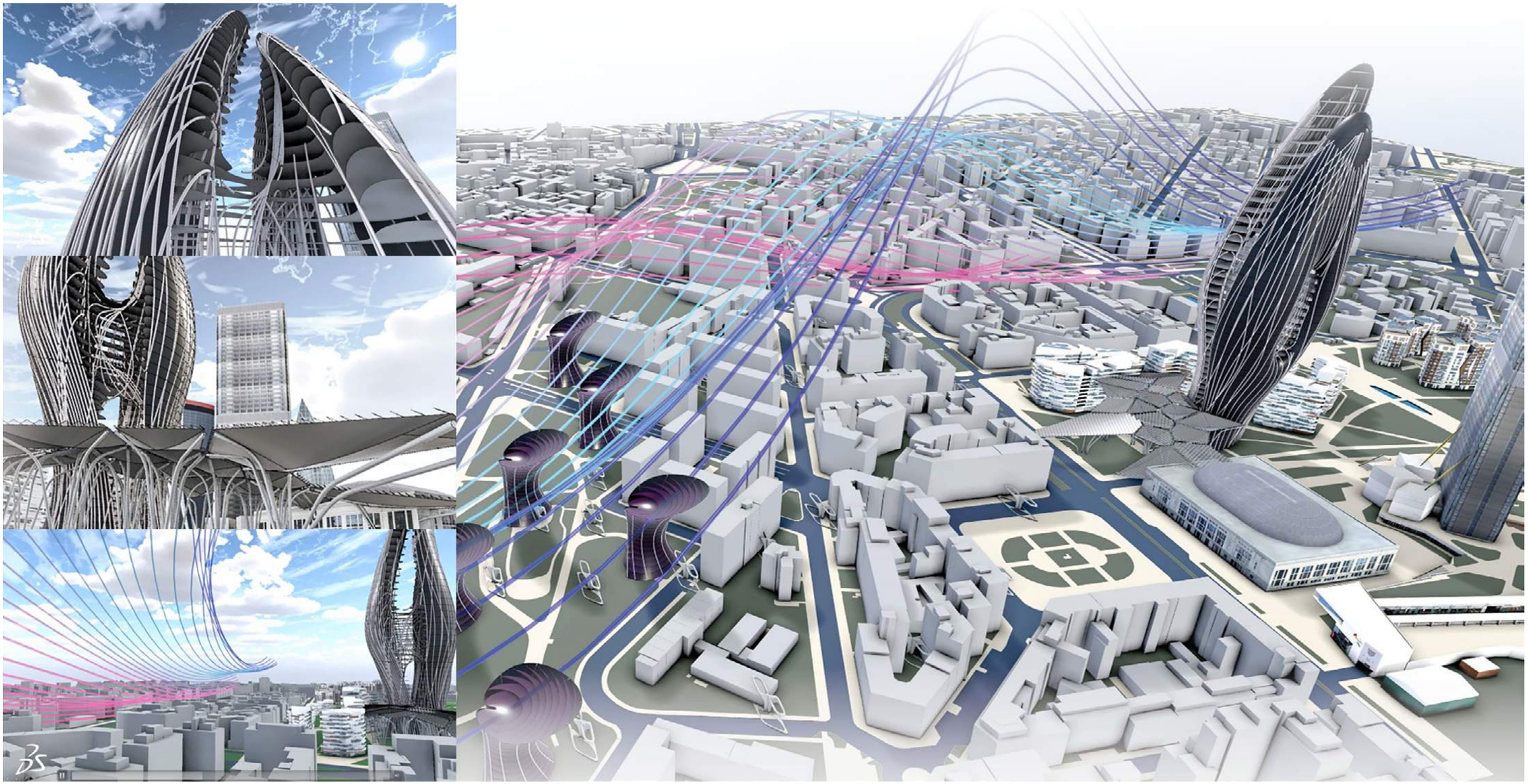
A scientific approach to building construction and lifecycle management based on industry-specific best practices

As the entire design and construction ecosystem shares the same model, the team is aware of the impact of project variations on the entire process and everyone automatically refers to the same dataset, avoiding misunderstandings and mistakes.
This “scientific” approach to construction builds on positive technological contamination from other highly innovative industries, such as aerospace and automotive, which have been using the PLM (Product Lifecycle Management) methodology for decades. BIM (Building Information Modeling) has inherited the collaborative approach of PLM and turned this technology into an innovation enabler for construction activities. The current state of the art is BIM Level 3, where construction data is fully transactable and can be shared with all stakeholders, removing barriers and silos amongst functions. The collaborative platforms based on the Virtual Twin evolution for construction operations incorporate BIM principles, extended collaboration and construction lifecycle management solutions and significantly help minimize the waste of time, materials and financial resources. Finally, they improve the economic and environmental sustainability of projects and generate extra added value in construction processes.

Technology improves design, building and profitability

BIM data combined with PLM functionalities and processes result into “Building Lifecycle Management” (BLM), which can help anticipate mistakes in the construction phase, increase long-term value for owners and profitability for the entire ecosystem of stakeholders involved in the design and construction of a building. This technology also offers integrated governance and traceability, improving the shared responsibility across all teams and disciplines.
Centrally managed data is essential to eliminate versioning control, reduce the risk of errors and eliminate file management needs. All users have access to an on-cloud unified database, updated in real time.
As a result, it is much easier for designers to make the right decisions, as they can rely on more data, constantly updated, and better control of the quality of the finished building and its future maintenance, especially in view of “smart” maintenance.
These are the foundations of a collaborative platform that allows to create a Virtual Twin of the city, capable of capturing behaviors and patterns as they occur over time. Continuous feedback between the physical model of the dynamic city and the virtual city ensures that the two elements mirror each other: the former shows what’s going on, the latter simulates and consequently measures the impact of future actions.
In other words, the Virtual Twin of the city is a “system of systems”, capable of reconciling the built environment and related services, to respond to adversities and changes dynamically.

The current changes are not just challenges, but also great opportunities. Technology can put professionals of urban planning, design and real estate at the core of Social Innovation and empower them to create value from change, to become more competitive, win new projects and orders, improve profitability and promote positive and sustainable development.



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COMPANY PROFILES

The complete **Design Force**

LENDLEASE is an international company operating in the infrastructure and urban regeneration sector, based out of Sydney, Australia. The company operates in different sectors related to infrastructures. Lendlease was assigned many projects of public, private, cultural and social relevance - it has collaborated for the Sydney Opera House, the 9/11 Memorial and Museum in New York, and the restoration and renovation of historical buildings like the Tate Britain and the National Theatre in London.

GIUSEPPE TORTATO ARCHITETTI busy themselves with architecture and interior design, with particular attention to themes of urban regeneration. The studio conducts research activity on topics connected to sensory experience and sustainability, starting from man and nature as cardinal elements. Environments and architecture are to be developed around these elements, on a human scale, thus releasing their energy through the senses and natural elements which become “building materials” themselves.

GET was founded in 2018, to assist public and private stakeholders in developing integrated and regenerative processes, based on the concepts of sustainability, health and well-being of people and focused on responsible business models. GET aims to develop and enhance these concepts to serve the real estate supply chain organizations (developers, designers, contractors, manufacturers), to build their ability, through training, coaching and high-skilled consulting services.

A global icon of the Italian style in the world, **PININFARINA** is renowned for the ability to design beauty through style integration and technology. Its expertize spaces from industrial design to interior design, from architecture to master planning, with particular attention to the issues of mobility and social impact. The team is made of architects, engineers, landscapers and interaction designers, with offices in Turin, Miami and Shanghai.

KORIAN is the leading European Group in assistance and care for elderly and fragile people, active for more than 20 years in the management of retirement homes of the third and fourth age.
The Korian group is present in France, Italy, Belgium, Germany Spain and The Netherland with more than 850 facilities and a total of roughly 80,000 beds. It operated in multiple areas of activity rated to assisting and caring for the elderly. Respect for each person and the needs of each guest are at the core around which the group works.

MATTEO FANTONI | STUDIO

Matteo Fantoni opened his studio in Milan in 2007 after working as partner (1991–2007) for Fosters and Partners. **MFS** has undertaken various projects around the world, from Masterplanning and Architecture to Interior and Product Design. The team bases each of its projects on Flexibility, Economical and Environmental Sustainability, with the goal of creating quality projects well integrated with the social and urban context, architectural quality and Innovative solutions.

LAISTUDIO
MAURIZIO LAI ARCHITECTS

Maurizio Lai is an architect, a scenographer and a designer. He is an original interpreter of a contemporary esthetic where light plays a fundamental role. Hospitality, retail, restaurants & bars are venues for an expressive research, which manifests itself in the built product as visual impact and experience planning. **STUDIO LAI** works at ease in contracting, furnishing solutions of exclusive and personalized design on an international scale, including residential

Lombardini22
DESIGN THINKING
DEGW

DEGW and **L22** are brands of Lombardini22 Group.
DEGW, leader in the workplace sector, is specialized in organizational and real estate consulting, space planning, interior design and workplace change management. It supports businesses in improving their performance, adapting space to the company's strategies and the need of individuals. L22 works in architectural planning and engineering of office and commercial buildings, urban spaces, hotels and residences with a multi-authorship approach.

FOOD LIFESTYLE

FOOD LIFESTYLE is an innovative startup specialized in R&D and food innovation. It operates with methodologies oriented towards design and in particular food design, a field in which the founder Paolo Barichella is a pioneer and major representative.
First Food System Integrator for the food service industry, Ho.Re.Ca. has implemented innovative systems that allow businesses to reduce the investments, cut costs and operating expenses for business management, thus increasing profit margins.

workitect

WORKITECT is a company that deals with workspace planning, smart working and workplace change management. Workitect was born from the marriage of two different expertises and sensitivities, with the mission to improve user experience - Simone Casella, architect and designer specialized in office design and Luca Brusamolino HR consultant, with a degree in business management, expert in the relationship between people and physical workspace.

piuarch.

Founded in 1996 by Francesco Fresa, Germán Fuenmayor, Gino Garbellini and Monica Tricario, **PIUARCH** works in architecture from planning office buildings to retail spaces, from residential complexes to restoration interventions, with a constant attention to the values of environmental quality and context integration. Well known at an international level for the collaboration with some of the most renowned fashion maisons, Piuarch's work has been shown at the Biennale of Architecture in Venice multiple times.

bininipartners

BININI PARTNERS, founded in 1996 by Tiziano Binini, works in urban planning, architecture and engineering. Thanks to an integrated multidisciplinary professionalism, Binini Partners can realize public and private projects, buildings and infrastructures with creativity, elegance and competence. Projects are born from the never-ending research for innovative design and advanced solutions, able to answer the complex needs of cities and regions, combining functionality and look.

matteo belfiore
architecture + design

MBA+D MATTEO BELFIORE ARCHITECTURE + DESIGN is a group founded in Tokyo by Matteo Belfiore, architect and researcher. Based on a multidisciplinary approach, the group works in architecture and design for commercial and work spaces. Its projectual approach is characterized by the constant research on the concepts of flexibility and cultural sustainability, with the goal of realizing modular and transformable spaces that can represent the complete integration between tradition and innovation in design.

CentroMedico
Santagostino

CENTRO MEDICO SANTAGOSTINO opened in 2009 and promoted by Oltre Venture, a company that organizes events of collective interest, prioritizing social return. Centro Medico Santagostino offers to interpret a common health need - a specialized medicine of high-level covering practices traditionally not covered under the national health system, like dentistry, psychotherapy, speech therapy and physical therapy. This will be offered at accessible cost, with short waiting times, mindful of the patient's need and sensible to innovating technologies.

Zaha Hadid Architects

Zaha Hadid Limited, operating as **ZAHA HADID ARCHITECTS**, was founded by Zaha Hadid in London in 1979 and it is currently one of the leaders in global consulting. Its pioneering vision has redefined architecture in the 21st century and has captured the imagination of the entire world. Each of its projects has transformed the notion of what can be realized in cement, steel and glass; combining an uncontrollable optimism with complete faith in the power of invention.

PROGETTO CMR is a society born in 1994 specialized in integrated planning, architecture, engineering and design. It is based out of Milan with many offices around the world. Some of its recent projects in Italy include the new Generali headquarter in Milan inside the CityLife complex and The Sign and Spark One buildings in Milan. Currently under construction abroad are the master plans for Xiantao Big Data Valley in Chongqing (22 last generation buildings) and the Slow River Bay eco-sustainable village in Manjiangwan.

MIC MOBILITY IN CHAIN is a consulting firm that works in transportation planification, founded in 2009 and today comprises more than 45 professionals. With offices in Milan, Moscow and New York, the firm operates at an international level with projects spanning from the US to China, from Europe to Africa, from Russia to the Middle East. The company's ambition is to improve the daily experience of those who live in the city and the urban environments, through a true understanding of how we move.

The goal of **PwC** is to build trust within society and solve prominent issues. This network is present in 157 countries with more than 276,000 professionals, committed to guaranteeing quality service in revision, advisory and financial consulting to companies. For more information visit www.pwc.com

Within PwC operates a group called **NEW VENTURES** that offers, on one end, strategic consulting on management innovation to discover and activate paths of open innovation and ecosystems. On the other end, New Ventures also acts as enabler for asset-based consulting, targeted towards the realization of innovative assets based on emergent technologies.

SCHOOL FOR DREAMERS is the school of Being. Innovators of thinking, they work on developing awareness to generate true sustainability within private and public companies and within institutions to promote true representation of all stakeholders. They dream of a society where each individual has the ability to discover and express his/her work talents and to transform the current social model to a new paradigm based on unity and love.

INTERNATIONAL EXPERIENTIAL SCHOOL: the evolution of school. Human centered, innovative didactics, development of emotional intelligence, bilingual and above average learning: IEXS is much more than a school. It's a multi-functional campus built for and around students. From Primary to High School and College, an incubator of talents where people can believe in their dreams, live experiences, learn high level competences and grow as individuals.

The **CENTRO SCOLASTICO GIOVANNI PAOLO II** is part of the Italian Education System, from Nursery to High School. The project is unique in Italy and centered around a New Humanism in Education that places students at the center, to make him a leader in his own journey, with the help of teachers (educated with innovative methodologies and knowledge) and parents (to allow continuity in the work done at school). The revolution in the education field consists in the fact that all decisions are implemented through the Educational Campus.

GENERATION WARRIORS is a reality that works with intergenerational communication and training. GM creates video content packages with a fresh and innovative style for smi and large companies that need to innovate the way they communicate on social medias. In addition, with a specialized team of psychologists and educators, GM created a training methodology focused on meeting different generations within the company to facilitate generational transition and innovation.

SIX IDEAS is a community that gathers the best professionals, researchers and thinkers to approach the always more complex modern challenges. The goal is to develop new knowledge, able to understand and fix the emerging misalignments between technology, people, culture and places. Six Ideas is a catalyzer of change and of inspiration for an organizational, educational and cultural innovation in the workplace.

TECHNOGYM is a world leading brand in products and digital technologies for wellness, fitness and sports. Technogym provides a complete range of cardio, strength and functional equipment alongside the Mywellness cloud digital platform allowing consumers to connect with their personal wellness experience anywhere and anytime. Over 50 million people train with Technogym in 80,000 wellness centers and 300,000 private homes world-wide. Technogym has been Official Supplier to the last eight Olympic Games.

IL PRISMA - www.ilprisma.com - is an Italian architecture and planning firm operating in much of the world, in the area where people and companies converge, to design spaces rich with life, engagement and involvement. The company has offices in London, Milan, Rome and Lecce, and is divided in 3 Business Units: Architecture (Cityscape), Workplace (Worksphere) and Retail & Hospitality (Destination).

CARLO GALIMBERTI is Tenure Professor of Social Psychology of Communication and leader of the Centro Studi e Ricerche di Psicologia della Comunicazione at the Università Cattolica del Sacro Cuore, Milano, Italy. In the last few years he has developed an original dialogic-conversational approach to the study of communicative processes, applying it to working space design and project. Eleonora Brivio, PhD, is a grant recipient of the Fondazione Umberto Veronesi and currently works as a researcher at the European Institute of Oncology, Milan.

LUCIANA GOMEZ, designer and entrepreneur. Eclectic Italian Argentine able to combine different skills: after an international design experience in the world of co-working, she focused on creating innovative interior design solutions with the launch of her new startup MYIN. She is also council member for Innovation and Urban Design in one of the largest municipalities of Milan, where she applies her expertise to the design of services and spaces for citizens.

DASSAULT SYSTÈMES, the 3DEXPERIENCE Company, is a catalyst for human progress. The company provides business and people with collaborative 3D virtual environments to imagine sustainable innovations. The 3DEXPERIENCE platform and its applications generate Virtual Twins of real world experiences to push the boundaries of innovation, learning and production. Dassault Systèmes brings value to more than 270,000 companies of all sizes, in all industries and in more than 140 countries. www.3ds.com

DESIGNTECH is the hub for innovation technology dedicated to the design industry. Promoted by Hi-Interiors, the hub aims at building an integrated Living Lab with co working, co living and co factory spaces inside the MIND Milan Innovation District, to unite startups, companies and professionals of the sector under one roof. Furthermore, DesignTech facilitates collaborations along all the value chain and the development of open innovation programs aimed at accelerating the adoption of digital technologies in the sector.

GHÉNOS COMMUNICATION, is an international Press Office & PR agency with more than 20 years of experience and specialized in the sectors of design, architecture and real estate. Founded by Gabriella Del Signore following a forming experience with De Padova Furniture in Milan, the agency is proud to have a substantial portfolio of international brands but also to offer tailor-made communication services to public agencies and institutions. Ghenos headquarters is in Milan with operating units in Spain, Portugal and the UK.

PPAN communication and networking for the built, is a firm that develops management strategies, curates communication plans and brand reputation. PPAN creates information and also supports public and private customers with press office services. Architecture, engineering, real estate and urban regeneration: PPAN fosters interests in the target community, publishing pieces of journalism on its own magazines, thebrief and Pantografo Magazine. As editor, PPAN issues publications for the industry.

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