TRANSPORT HUB
a CSR initiative of āyushća GOA

āyushća
BY THE SEA
GOA
AN IIT ALUMNI COUNCIL INITIATIVE

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M7 VOLUME FOUR

ALUMNI HUB GOA PRELIMINARY



āyushća



Non nobis solum nati sumus

Not for ourselves alone are we born

Marcus Tullius Cicero



IIT Alumni Council proposes to catalyse the creation of a Rs 4000 crore sustainable wellness estate. āyushća GOA will cover a total of 275 acres and house the Institute of Innovative Technologies focused on climate change, sustainable tourism and wellness. A substantial part of the project cost is being allocated to community non-profit projects.

āyushćа GOA has been conceptualised as a model/concept village/town calibrated to the demands, challenges, and nature of the digital society. It is being sustainably built ground-up to be carbon negative with zero effluent discharge and a negative power requirement.

The intention has been to establish a global role model for sustainable and responsible tourism, wellness travel, slow travel, proactive holistic health, health-span and wellbeing enhancement and a circular economy.

The technologies and best practices proven here can then be emulated to create more such multigenerational living ecosystems, surrounded by and existing in sync with Nature.

These hamlets will preserve and regenerate the ecology, enliven local culture, cuisine and traditions, spread awareness on and offer opportunities to the locals to learn healthy self-care practices and balanced nutrition, and symbiotically thriving with the local communities.

In pursuance of it's objective of contributing to the state in general and to the local communities around the hub in particular, the project includes:

- two multimodal transport hubs for I200 electric buses with 300 station Mega chargers and 60 MW captive power generation
- a pandemic scale Mega lab for population scale pandemic management
- state of the art medical clinics on wheels, emergency and disaster management vehicles
- complete waste recycling and processing unit for biogas production, organic compost and water recovery
- India's first multimodal transit, parking and utilities payment card
- Goa's largest multi-use convention centre
- India's first international golf training academy



proposed project cost

āyushća estate components	Land area acres	MegaFund Equity	Cr	Vendor Finance| Cr
IIT Alumni Council's Global Intellectual Hub	25	350	150
MegaReach Convention Centre & Hospitality Zone	40	500	200
Research University & Incubator	5	50	-
MegaLab Theranostics & Research Hospital	5	75	-
Integrated Health & Wellness Institute	25	400	-
International Golf Academy & Sports-Fitness Complex	70	160	-
Transport Depots x 2 [EV parking, charging & service]	80	700	800
Zero Emission 24/7 power plant	10	200	200
Biofuel plant [waste processing, back up power, cooking gas]	10	65	150
TOTAL Rs 4000 crores 270 acres plus 30 acre isolation		2500 Cr MegaFund	1500 Cr Vendor Fin.

built area

āyushća estate components	Land area acres	Conventional construction sqm	Sustainable construction sqm
IIT Alumni Council's Global Intellectual Hub	25	22000	30000
MegaReach Convention Centre & Hospitality Zone	40	48000	12000
Research University & Incubator	5	5000	15000
MegaLab Theranostics & Research Hospital	5	7000	5000
Integrated Holistic & Wellness Institute	25	30000	15000
International Golf Academy & Sports-Fitness Complex	70	6000	23000
Transport Depots x 2 [EV parking, charging & service]	80	4000	15000
Zero Emission 24/7 power plant	10	2000	3000
Biofuel plant [waste processing, back up power, cooking gas]	10	1000	7000
TOTAL	270 acres land area	125,000 sqm conventional	125,000 sqm sustainable

The current tourist areas are now close to saturation. In order to increase the size of the tourism economy, there is an urgent need to increase the:

- land area by creating new tourist attractions and related infrastructure
- international tourist footfalls in the off season months
- per tourist stay and per day spend by developing luxury wellness and premium MICE locations
- size of the startup economy by promoting incubators that incentivise roaming

To achieve the above, āyushća proposes to develop a

- pioneer luxury wellness retreat
- world class convention centre
- large format incubator
- international golf training academy
- related public infrastructure to ensure connectivity with current tourist areas and airport/stations



GOA
Expanding the Tourism Economy





Enabling authentic wellness led by Ayurveda





The All India Institute of Ayurveda is an AIIMS level non-profit institution dedicated to validated and verified Ayurveda practices drawn from the ancient wisdom and healing traditions of India

As the only state of India led by a qualified ayurvedic doctor, the state is well positioned to lead globally in high end medical tourism based on ancient wisdom.



GOA
Strengthening the Startup Ecosystem





The essential components of a startup ecosystem traditionally include promoters, academic institutions, angel investors, venture capitalists and incubators.

- interventions like the virtual incubator promoted by the IIT Alumni Council have changed this paradigm. By offering startup's the option to roam across physical incubators in different cities or even different countries, the startups are no longer handcuffed to their home location
- new incubation models like venture studios and accelerators bring the startup's to a location that is convenient from the viewpoint of ecosystem suitability, capital access and research infrastructure
- as the SME listing framework gains traction, the gap between inception and stock market listing is being continuously reduced

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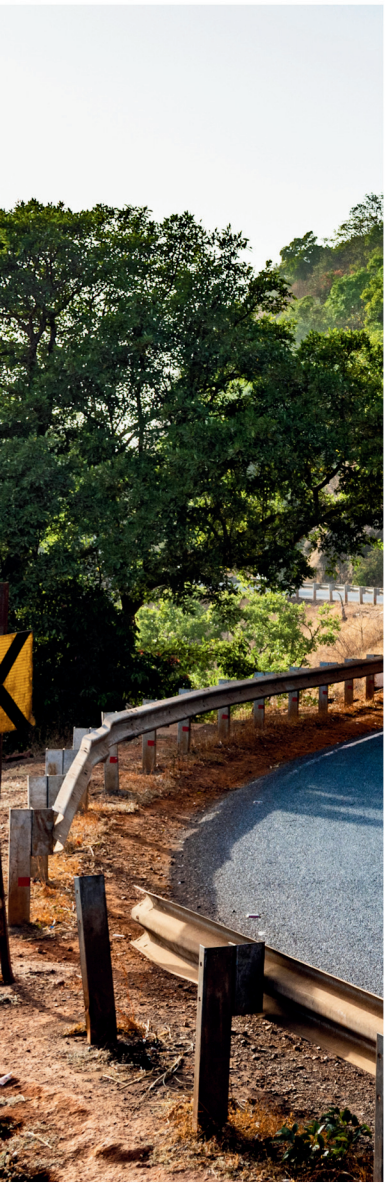
Goa is rightly positioned to lead as the incubator and accelerator location of choice because of a vibrant tourism economy, existing incubators, well known academic institutions and proximity to Mumbai.

GOA
Revitalising
Public Transport







Initiate a shift to buses and prioritise their electrification

Promote electric two- and three-wheelers

Encourage a shift in the car fleet towards shared electric vehicles

Choose corridors with high passenger demand for new metro lines

Mainstream life-cycle assessment into public policy and investment decisions

Accelerate the transition to battery electric vehicles and complement it with the provision of cleaner energy



The current public transportation network comprises of:

KTC buses | 450
Private buses | II50
Other buses | 4500
Goods vehicles | 55000
Taxis | 37000
3 & 2 wheelers | 35000

Almost the entire fleet is fossil fuel powered. The capital cost of electrifying this would be upward of Rs25,000 crores. If this fleet were to be concurrently charged at night over four hours it would draw more than 500MW of power which is not available from the grid. The State grid supply of 560 MW is already short of peak demand by approx. 100 MW leading to power cuts.



The āyushća project proposes to accelerate the path to electrification and upgradation of the public tourist infrastructure.

As part of the āyushća project, a 300 vehicle fleet would be supported:

I00 Comfort buses | upto I2m
I00 Luxury coaches | upto 9m
40 Long haul buses | upto 24m
30 Intra Campus buses | upto 7m
5 Amphibian coaches| I2m
I0 Medical Clinics on wheels
5 Emergency Services
5 Support & Standby vehicles
5 Electric hydrofoil boats

These will be supplemented by standardised 300 luxury EV coaches sponsored by leading hotels to connect their hotels to the tourist route locations using a circular route.





GOA Increasing Hotel Capacity





The current hotel room capacity in the state of Goa comprises of :

Category A | 4/5 star
90 hotels | II,000 rooms
Category B | 3 star
275 hotels | I3,000 rooms
Category C | 2 star with 6+ rooms
3250 hotels | 35,000 rooms
Category D| star rated with <6 rooms
3750 units | I2,000 rooms
Category G | Homestay Gold category
250 units| I,000 rooms
Category S | Homestay Silver category
I200 units | 3,000 rooms

There are less than 3,000 hotel rooms qualify being 5 star deluxe by global standards. There is no world class wellness resort in Goa even though Goa is now home to the All India Institute of Ayurveda near the Mopa airport. Premium locations are not available in the tourist areas to build new hotels.



As part of the āyushća project, it is proposed to add a total of around 2,000 five star premium luxury rooms. These include:

200 Wellness suites
800 keys Hospitality zone
300 Serviced apartments
200 Long stay suites
200 Volunteers' residences
I00 rooms Hospital
200 Time share villas
Golf course academy
28,000 sqm Event space

These will be supplemented by direct access to a transport hub for state wide connectivity, 24/7 break free power, a large convention centre and a golf course.



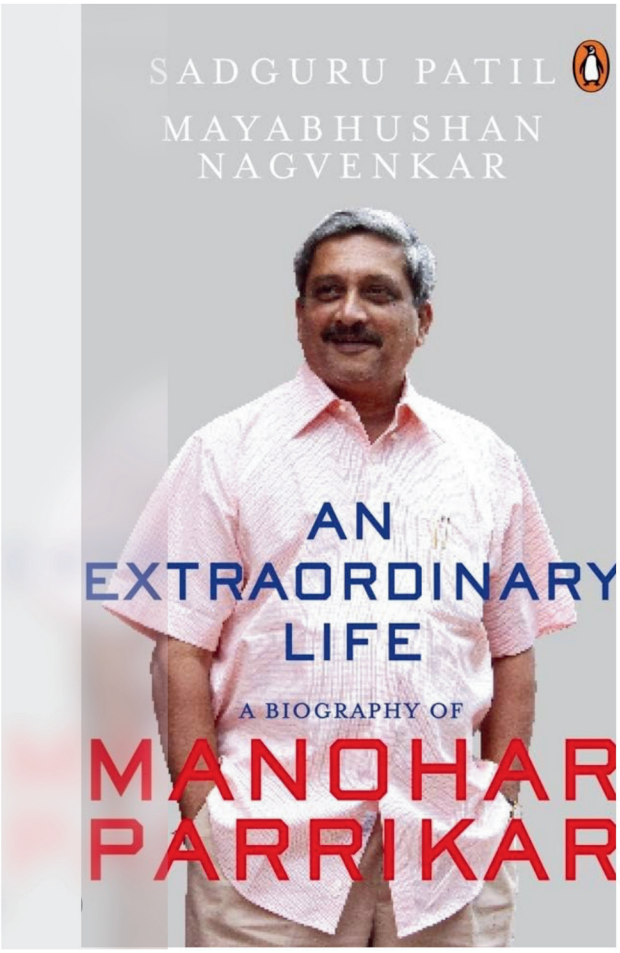




GOA Technology Leadership







The āyushća Project was conceived in the IIT Bombay alumni meet in Delhi held under the leadership of Manohar Parikar and Jairam Ramesh in 2017. The alumni group worked with Mr Parikar to conceptualise the waste management and biogas production facility under the PPP framework.

The Goa facility is now considered the best managed waste management units in India and among the best in the world.

Mr Parrikar is the first IIT alumnus to serve as an MLA of an Indian state, the first IITian to become the Chief Minister of a state in India and the first Goan to become a cabinet-rank minister at the Centre. Mr Jairam Ramesh was the first IITian to be a cabinet minister and played a seminal role in creating the regulatory framework for protection of green areas as the cabinet minister for environment and forests.

The āyushća initiatives were handed over to the IIT Alumni Council in September 2020. The objective was to increase the donor base by involving global alumni of all the IITs.

The scope and size of the āyushća project was increased by merging it with the MegaLab mission (www.megalab.in). The objective of the Megalab mission is to improve the healthcare system by enhancing preventive medicine and proactive care and creating future pandemic and disaster management readiness.



The project is supported by requisite capital from the social impact fund of the Council, www.megafund.in. The Forum organisation www.forums.org.in was entrusted with the pre construction studies and being the overall project management consultants. The Forum set up over fifteen global task forces to study global best practices in each of the areas.



The Forum team interacted with the Tech Mahindra team doing the project coordination for the Neom project in Saudi Arabia.

The team members also visited the Spanish resorts of Majorca, Marbella and Barcelona, in addition to leading wellness centres in Germany and river tourism locations like Guilin in China.

The team interacted with leading global architects including Norman Foster (who designed the Apple headquarters in Silicon Valley and the Amaala Wellness resort in Saudi Arabia) and Esteva Spain (who designed Six Senses Vana in Dehradun) in addition to Wellness Lifestyle LLC, Integrated holistic health and wellness operations consultants, considered one of the best globally.

As part of the āyushća project, it is proposed to add nine key technology elements which could help improve the perception of Goa, enhance the sustainability quotient and improve the air quality levels. These include:

- Multimodal electric transport
- Air taxis like volocopter
- 100% circular waste treatment
- Pandemic scale lab testing
- Location aware audio tour
- All purpose transit card
- Virtual high speed metro
- International golf academy
- 3D virtual stage at main convention hall

Vendors are already in place for all of the above.







the components

of āyushća GOA







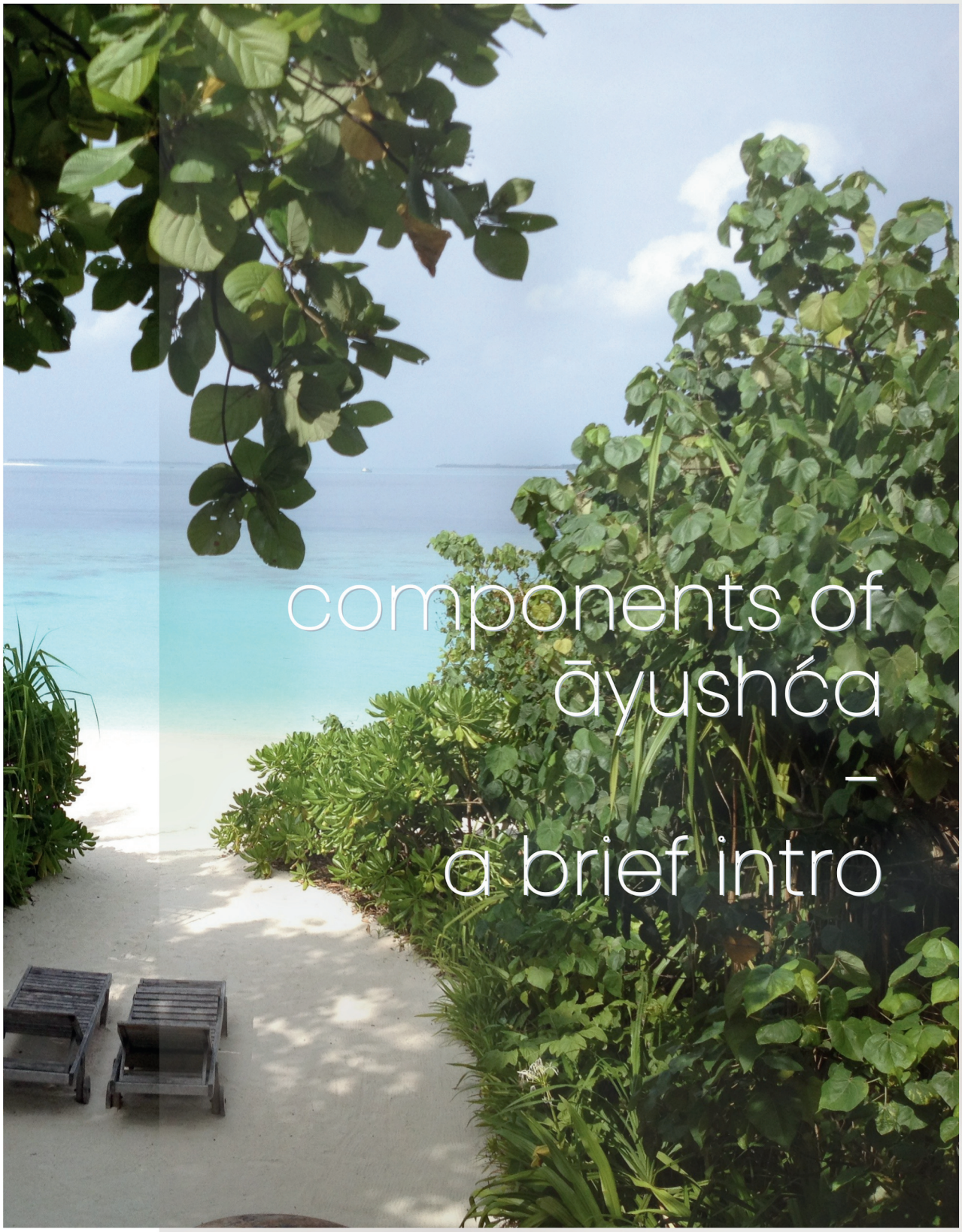
SPORTS COMPLEX
AQUA
TERRA
GOLF + ACADEMY
FARM - BUFFER
PERMACULTURE - BUFFER
HOSPITALITY ZONE
CONVENTION & EVENTS
CULTURAL HUB
INTEGRATED HEALTH & WELLNESS INSTITUTE
ANIMAL ASSISTED THERAPY PADDOCK
PERMACULTURE - BUFFER
PERMACULTURE - BUFFER
SCHOOL OF HOLISTIC HEALTH
RESEARCH UNIVERSITY
TEAM BLOCK
HOSPITAL
BUS DEPOT ONE
GLOBAL INTELLECTUAL HUB
AUTISM + SUPPORT COMMUNITY
COMMUNITY FARM MARKET
PARKING







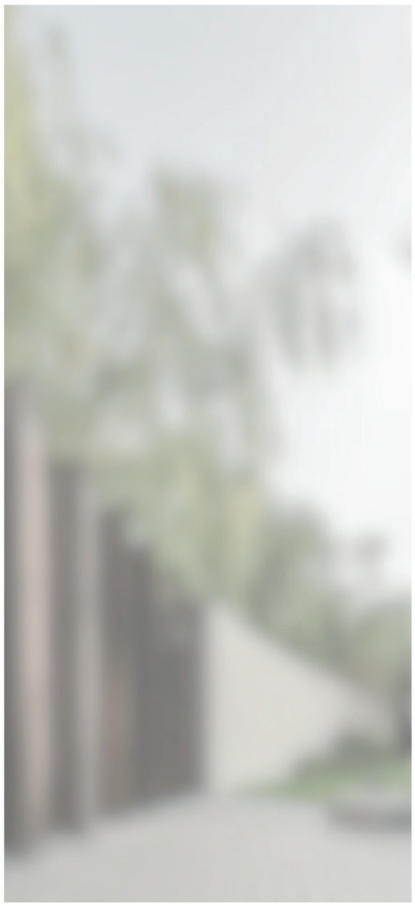

IIT Alumni Council's
Global Intellectual Hub
MegaReach Convention Centre
& Hospitality Zone
Research University
& Incubator
MegaLab Theranostics
& Research Hospital
Integrated
Holistic Health Institute
International Golf Academy
& Sports-Fitness Complex
Transport Hubs
[EV parking, charging & service -2 hubs]
Zero Emission
24/7 power plant
Biofuel plant
[waste processing, back up power, cooking gas]



components of āyushća – a brief intro

āyushća
IIT ALUMNI HUB

IIT Alumni Council's Global Intellectual Hub





Intellectually stimulating and wellbeing enhancing stays - to study, write or just think better.

The intelltectual hub is being conceived of as a global melting pot for IITians from around their world, their spouses, siblings and adult children. Members only.


Opportunity to interact with like-minded techies, relive college days, reinvent yourself or just reskill for the new paradigm.

Residences & Communities





A vibrant community of residents and team, the āyushća estates would become home to both extended stay residents and shorter stay guests.

When shifting to bio bubble mode, the entire commune would become a long stay zone in the event of a pandemic or biowarfare.

MegaReach Convention & Hospitality Zone



Multi functional and tastefully appointed state of the art event spaces. Largest in India outside Delhi.

Houses virtual reality-enabled auditoriums and meeting facilities. Goa's highest globe in the sky - visible from space.



SCHEMATIC DRAWING OF MEGA LAB PROJECT

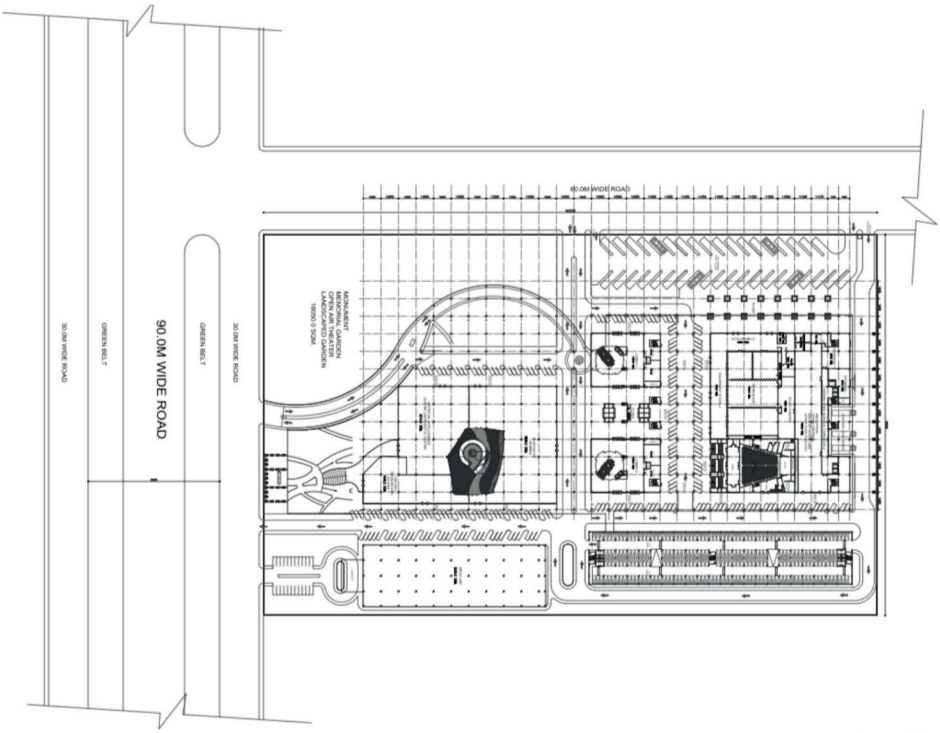
02: CONCEPTUAL VIEW-2A

ASA A SHARMA ASSOCIATES
E-302, EAST OF KAILASH, NEW DELHI-65
PH :26401700,26475054, 26451866, FAX:26478413
e-mail :mail@asharma.com.www.asharma.com



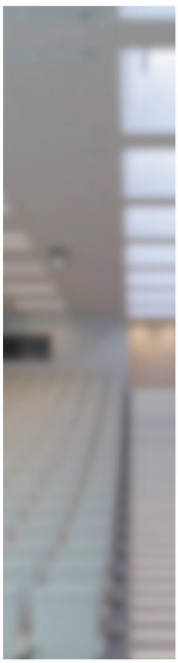


The main convention theatre with interactive 3D projection will seat 5,000 viewers.

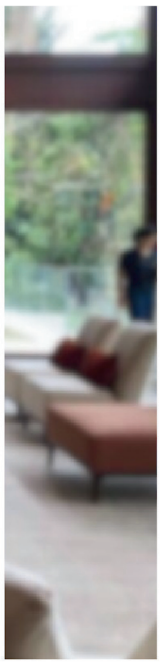


SCHEMATIC DRAWING OF MEGA LAB PROJECT
05: GROUND LEVEL PLAN

ASA A SHARMA ASSOCIATES







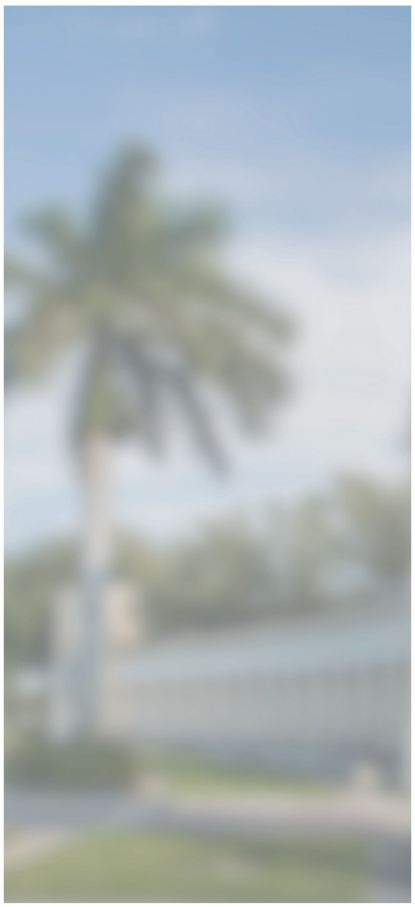


āyushća cultural hub

will uphold the Indian soul and celebrate its geo-cultural contexts

āyushća
UNIVERSITY

Research University & Incubator





Each āyushća estate will house a research centre with a branch of the IIT Alumni Research University And incubator

Industry training and doctoral-level studies with necessary research facilities in areas linked to climate change, health and deeptech. For IIT Alumni.

āyushća
RESEARCH HOSPITAL

MegaLab Theranostics & Research Hospital



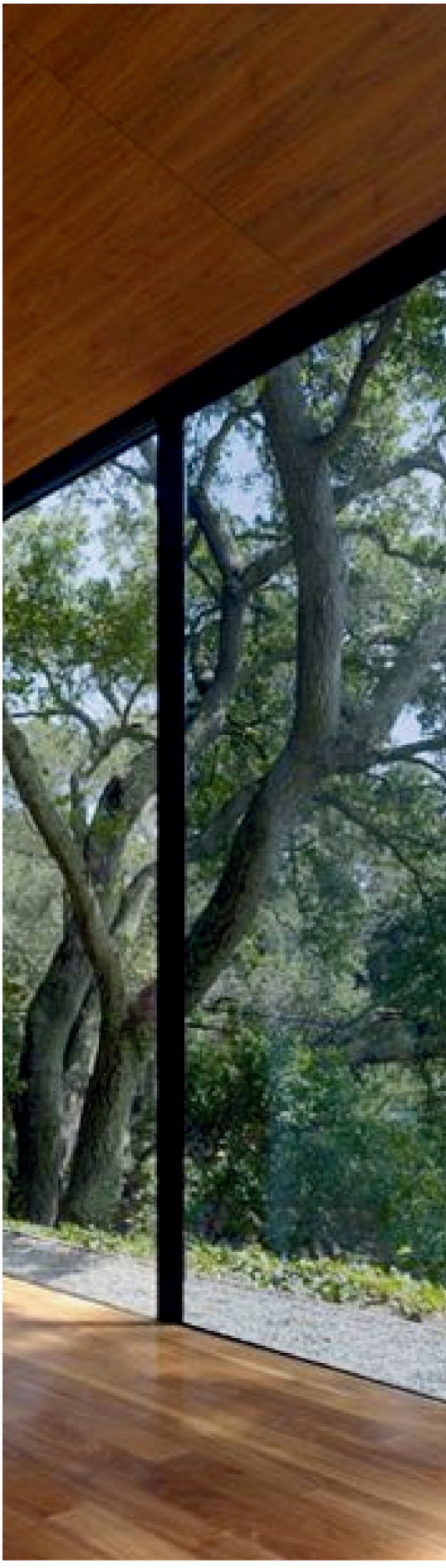


State of the art pandemic scale facilities. Optimised for clinical trials and drug discovery research in normal times.

It will catalyse the deployment of advanced therapies alongside creating a pandemic scale precision diagnostics infrastructure. World's largest single location genetic testing lab.

A wide range of cutting-edge technologies - from regenerative medicine to emerging foundational technologies such as telepresence, autonomous devices, blockchain and hyperspectral imaging. Accelerated clinical trials using digital twins and in-house volunteers would reduce lead time from the invention of the innovation to intervention in disease progression and or reversal.

The core objective is to increase healthspan.









The āyushća megalab features an advanced precision Diagnostics Centre alongside a Research Centre. It will also house a Clinic wing, with ultra-modern facilities and seasoned medical teams for any emergencies besides essential acute care, which is only for in-house needs.



And using the power of their collective resources and determination to access the tools for active longevity and continuous learning.

Integrated Health & Wellness Institute





Photo: [Vana, Dehradun, India]

Ancient insights to Artificial intelligence...

The wellness retreat paradigm applies to them all, from the ancient to the futuristic as necessary, to orchestrate the best course for the individual through its personalised and participatory approach.

The Integrated Holistic Health Centre is the fulcrum that will coordinate and work in tandem with the other components of āyushća. It will adopt a collaborative and cross-disciplinary approach to create personalised health and wellness itineraries that is truly holistic and progressive.

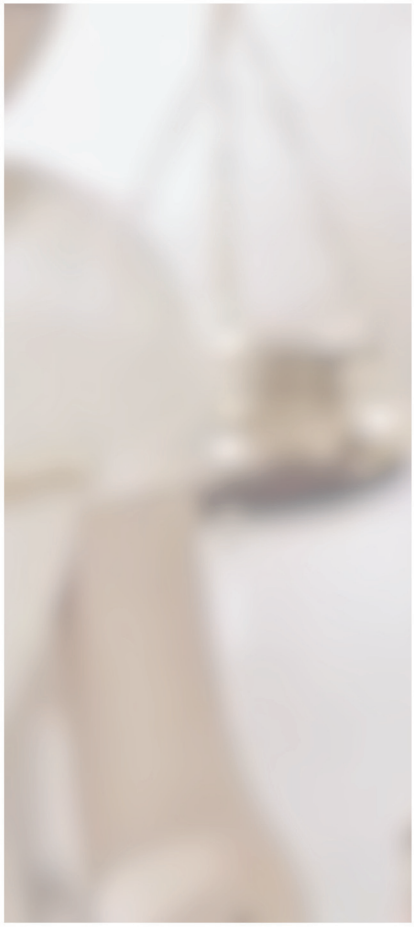
Guided one on one by caring physicians, health experts, coaches, and wellness practitioners, it aspires to offer the best of both worlds - distilled from the timeless but lesser-known past, and that of the future that is yet to become mainstream.







Ayurveda & AYUSH++

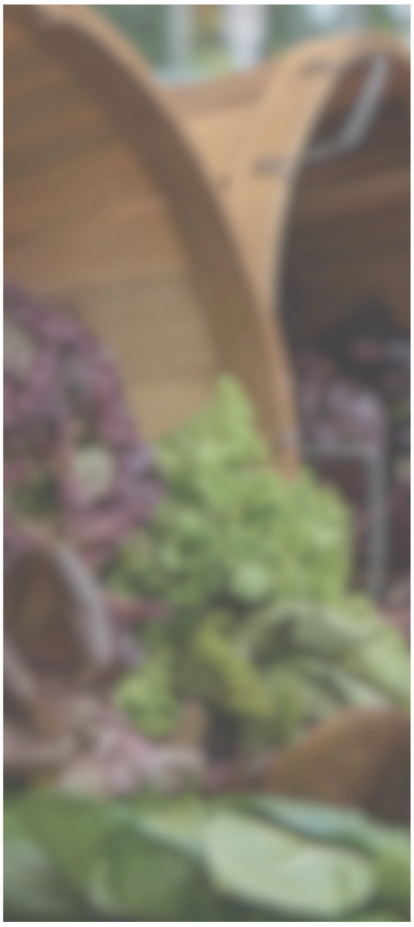




Authentic full spectrum Ayurveda,not just as medicine but as lifestyle that befits our times, under the guidance of seasoned physicians

Utmost comfort, personalised care and quiet luxury will be some of its defining characteristics.

Organic Farms & Farmers' Markets





'Let food be thy medicine'.
'Farm to fork. 'SLOW'.

In-house organic farming is crucial to stay clear of compromised food chain. āyushća farms will play an important role in ensuring the health of the residents, neighbourhood and the environment.

Such preparedness necessitates well-appointed multi-format living spaces that give adequate privacy and freedom to the residents. Self-sufficient utilities, including oxygen enhancement, would be an essential part of the campus.





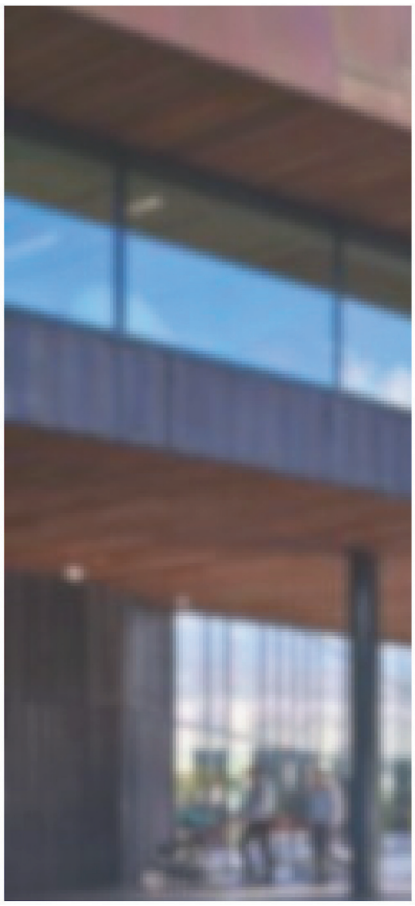




Photos *[Visualisation by: Omegarender, Archivibe]*



International Golf Academy & Sports-Fitness Complex





Ultra-modern and avant-garde sporting and fitness facilities and grounds with Olympic grade training as the cornerstone

With a robust annual calendar of sporting performance-enhancing clinics by cross-disciplinary health experts, it intends to take sporting calibre to another level.



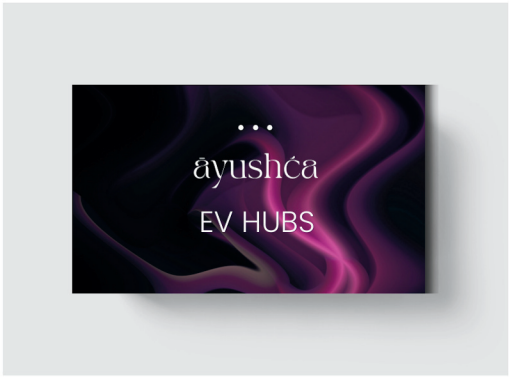
The residential academy will also foster sports of Indian origin. Polo,kabadi, archery, silambam, golf, kho-kho, chess, kalari payattu (acclaimed as mother of all martial arts)







A hub for international sportspeople, trainers, coaches, sports veterans, novices and enthusiasts.



Transport Hub for Electric Vehicles



Transport hub will host multiple electric vehicle technologies including pure electric, hydrogen and hybrid.

Electric vehicle parking, charging & maintenance and repair service stations will be established at two locations.



The hubs will contain state of the art pantograph type charging stations with 300 concurrent charging bays drawing upto 30MW at each depot.





As part of the āyushća project, a 300 vehicle fleet would be supported:

I00 Comfort buses | upto I2m
I00 Luxury coaches | upto 9m
30 Longhaul metro | upto 24m
20 Campus buggy| upto 7m
I5 Amphibian sightseeing | I2m
I5 Mobile clinics | I2m
I0 Emergency response | I2m
5 Support vehicles |20m
5 Water cruisers | I5m

These will be supplemented by standardised 300 luxury EV coaches sponsored by leading hotels to connect their hotels to the tourist route locations using a circular route.







comfort buses



IIT Alumni Council proposes to catalyse the creation of a 400+ fleet of comfort buses which will replace the ageing fossil fuel buses currently used by Kadambathur Transport Corporation. These buses would be charged and maintained at the transport hubs. Their movement will also be monitored from the central command station to optimise their use and ensure compatibility with the state wide transit card proposed in the project.

3

luxury coaches



The luxury buses deployed as part of the network need to have a distinctive look, low cost, bespoke interiors, large glass panels, easy fast charging and low cost. They also need features like easy embarking with heavy luggage and easy disembarking for wheelchair passengers. Such buses have been developed through initiatives of the Council indigenously.

long-haul virtual metro



Conventional articulated buses used for long haul - metro or tram type applications - need a high turning radius. This may not be possible all over the State. Thus low turning radius versions of such buses would be required. Buses suitable for this application are currently under development.

estate buggies



The estate buggies proposed for use inside the ayushca campuses and in the pedestrian zones near tourist attractions. These golf cart type vehicles have been ergonomically remodelled for higher passenger capacity, speed upto 65 kmph, vehicle to vehicle charging and options for doors to enable use during monsoons. .

amphibian sightseeing



The amphibian buses proposed for tourist sightseeing require minimum infrastructure at the jetty end. By using water jet propulsion, they are able to provide safe travel on land or in water. They can also be used for disaster management or in flooded areas during the rainy season. The luxury buses can also be remodelled to have bio toilets, kitchenettes or conference type seating.

mobile clinics



The first set of MegaLab buses were flagged off on May 1, 2020 as an emergency fleet to help manage the covid pandemic in Mumbai and other cities. The bus interiors were modelled using paradigms used by private planes refitted for medical use. The MegaLab fleet was the first electric bus to have a full function digital X-ray and RTPCR lab on board for covid testing.



Photograph of the interiors of the actual MegaLab bus,2020 version deployed at the NSCI Dome Covid hospital. It was the first covid lab bus in the world. The bus was equipped with digital radiology equipment for remote reporting via telemedicine.

emergency response







Emergency response vehicles can be designed to have a wide range of functionalities from medical facilities on board to satellite connectivity for communications backup and live video broadcast to hosting remote control rooms.

support vehicles



Support buses are required to handle breakdowns and other maintenance issues including depot to depot transfer for remodelling, battery replacement, change of interiors, software upgrade etc. Some of the features in the luxury buses including partial autonomous driving and remote driving make it difficult to service them on the curbside.

water cruisers



It is now possible to build hydrofoil type high speed yachts. These can be built upto 20m in length and can achieve speeds upto 40 knots. Given the simplicity of design because of electric propulsion, it is possible to cost effectively manufacture these in Goa. The zero pollution boats can take luxury tourism to the next level.



Photograph of the interiors of the actual MegaLab bus,2020 version deployed at the NSCI Dome Covid hospital. It was the first covid lab bus in the world. The bus was equipped with digital radiology equipment for remote reporting via telemedicine.



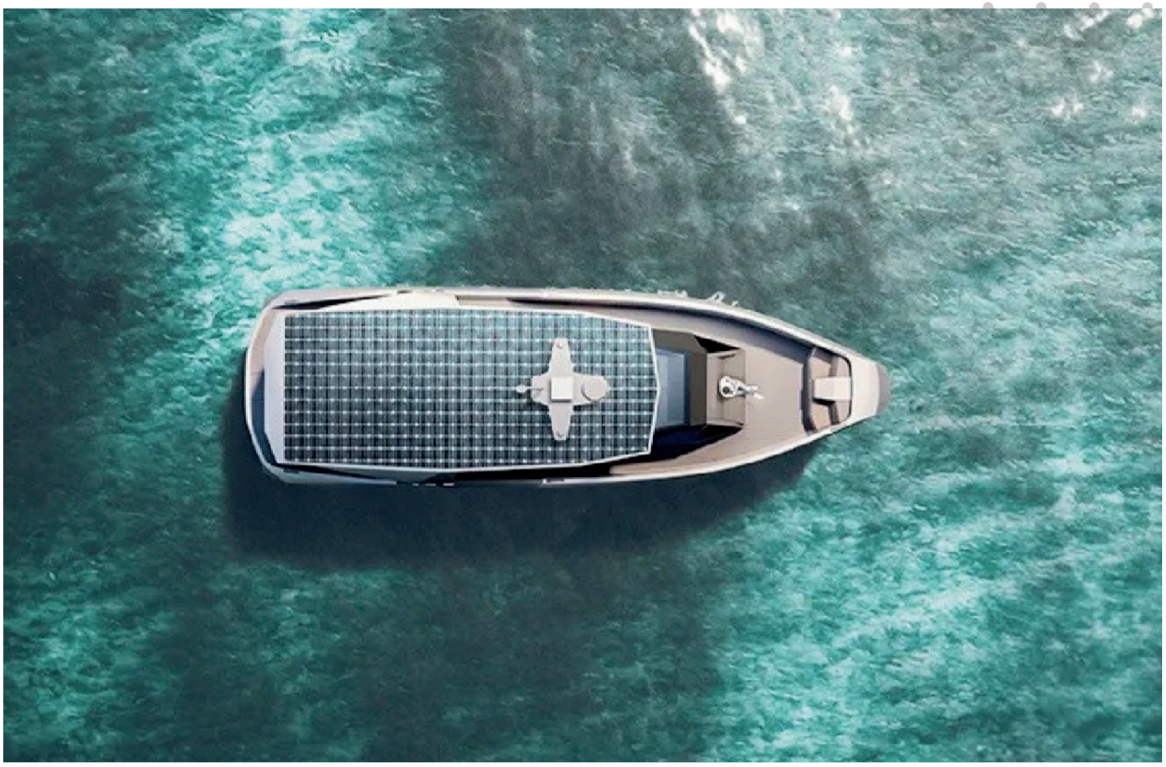


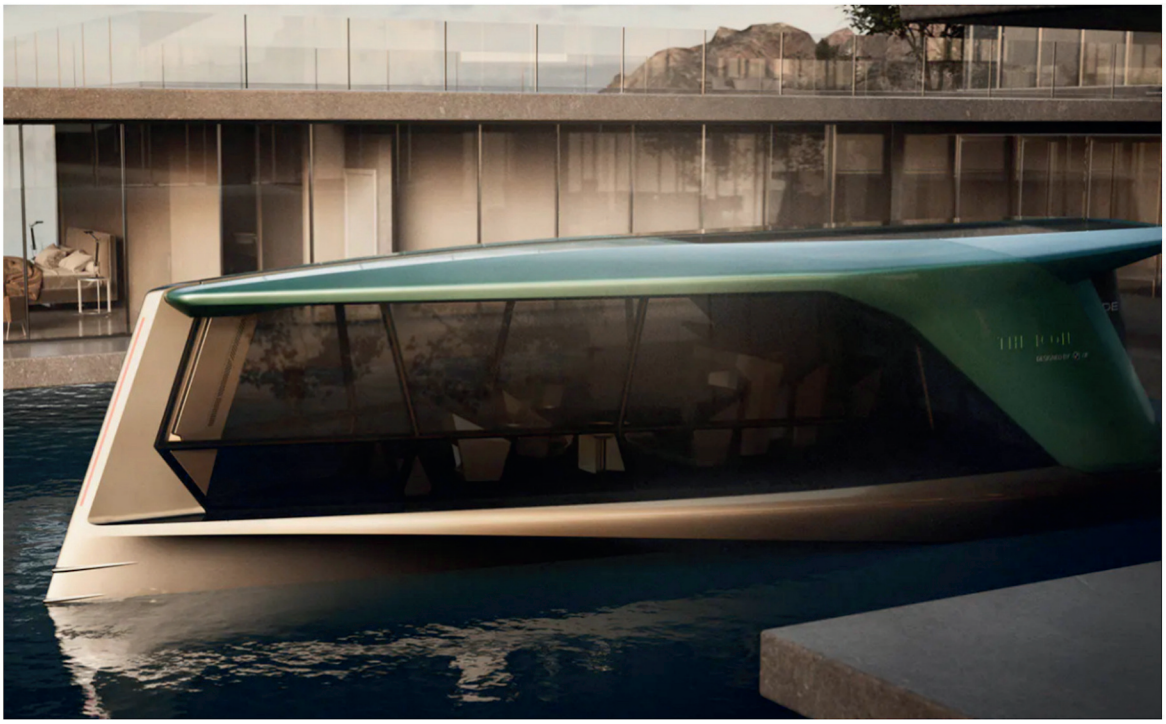
It is also possible to design jetties on water channels that are extended inland from the waterfront. This can enable waterfront establishments to host their private jetties to anchor small yachts.





Since the entire propulsion is on a skateboard type architecture, it is possible to build a variety of ship bodies with bespoke functionalities.





Once a design is perfected, it is also possible to produce the same design in different sizes ranging from 5m to 20m in length. The power system can be further optimised using solar roofs.



Biofuel plant

[waste processing, back up power, cooking gas]

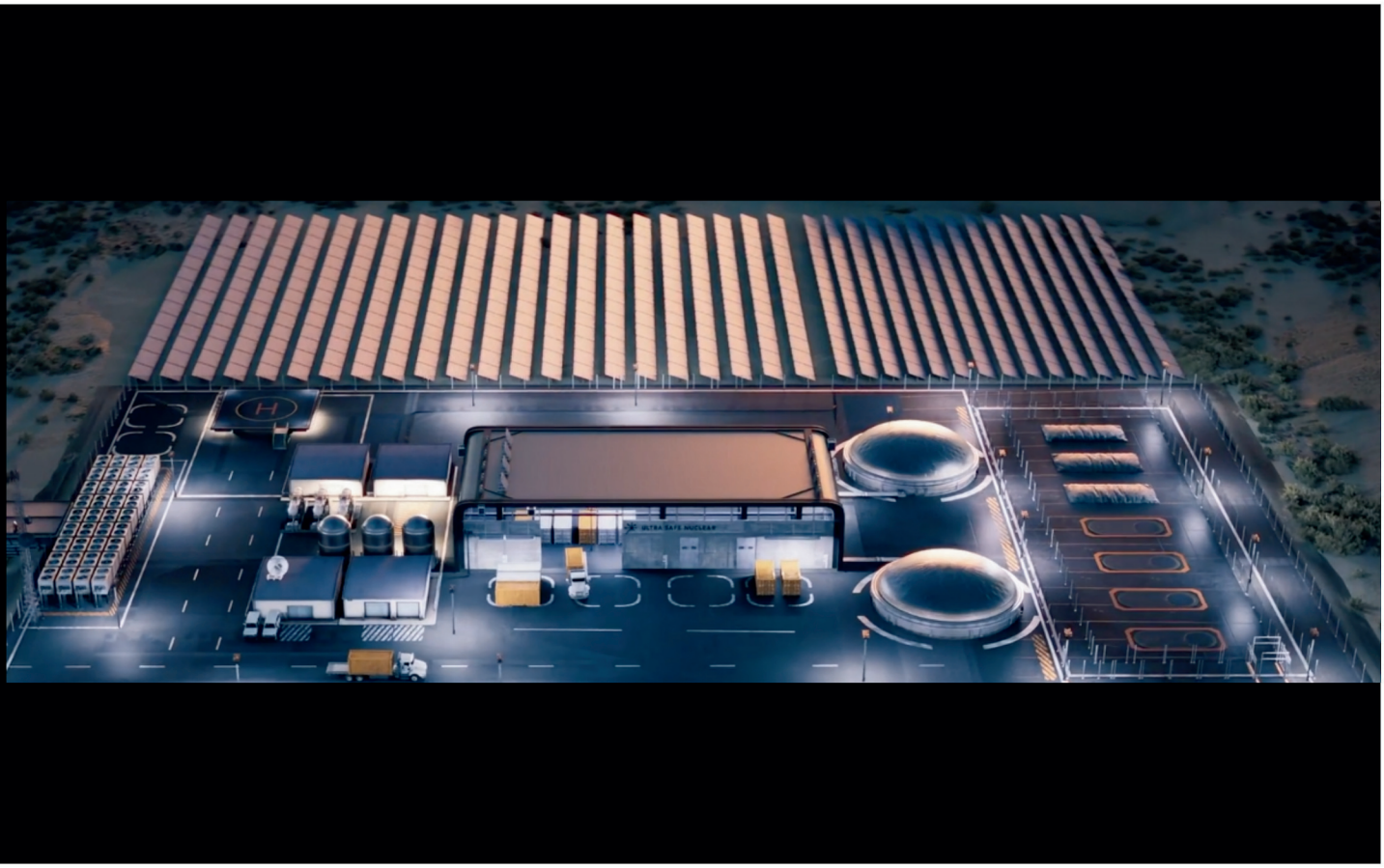


Kitchen waste and sewage are disintegrated microbially to produce CNG, biofertiliser, power, hydrogen etc

The multi feedstock microbial digesters can take a variety of inputs including animal manure, coal and biomass to produce biofuels.



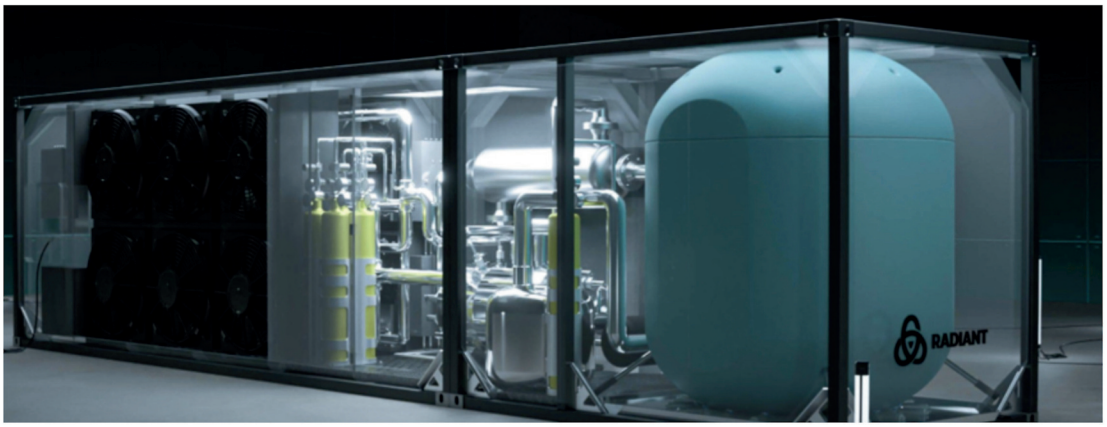
Zero Emission 24/7 power plant



The three stage power plant comprises of solar photovoltaic generation, biofuel based power and thorium based heat source for 24/7 airconditioning and power.

The power plants will have a cummulative generation capacity of 60 MW at the peak hour.







Thorium type heat sources can provide close to perpetual power to drive heat cum electricity for applications like chilled water for central air conditioning and supplementation to biogas derived electricity.

GOA study visits
by the IIT alumni council



Members of the various āyushća task forces have made around fifty study tour visits to Goa over the last three years. Over 3,000 man days have been spent on these visits. The team has visited several of the startup incubators, educational institutes, waste management units, biogas plants, bus depot, luxury hotels, ship building units etc.










Nieland
SRP-275








BIOGAS













The fifteen task forces appointed for the project include:

1. Wellness & traditional medicine
2. Travel & tourism
3. Alumni Relations
4. Sustainable habitats
5. Biofuels & renewables
6. Academic Board
7. Power Generation
8. EV and charging
9. Fintech card platform
10. Nutrition & farming
11. Theranostics & vaccines
12. Sports training & Fitness
13. Artificial intelligence
14. Decision Support & Market
15. Project Finance







annexures

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Membership

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Philosophy

As a start point - led by a cross-section of the IIT alumni, āyushća is building a world class campus to demonstrate the key technologies and paradigms required for sustainable luxury wellness tourism.

The campus will be owned and built by a Section 8 non profit company primarily funded by social impact funds.



āyushća membership



a global interactive community

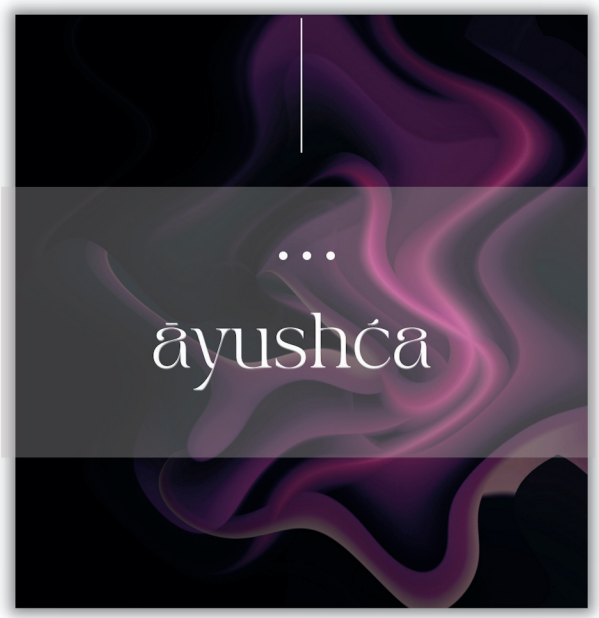




The āyushćan estates aspire to provide opportunities for interaction between the community members and experts from around the world who are working in the startup, climate change and healthy longevity domain.

āyushćа residential members

āyushćа residential membership is exclusive and is 'By invitation' that will be extended only to IIT Alumni Council donor members and their affiliate entities.





āyushća members would be a 50:50 blend between residents and NRIs



comparators

There is no equivalent competitor with such an extensive and truly integrated offering that encompasses a vast array of systems from the ancient to the cutting edge technologies that is focussing on proactive health.

Stand-alone comparators for the various components could include ...

IIT Alumni Centre & Hospitality spaces	Marriott InterContinental Four Seasons
Ayurveda & Naturopathy Luxury Hospital	Kalari Kovilakam SwaSwara Amal Tamara
Integrated Holistic Health Centre	Vana Canyon Ranch Rakxa
Theranostics & Critical Care Clinic	dasa, São Paulo MD Anderson John Hopkins
Convention & Exhibition Complex	Pragati Maidan Sunteck Hannover Messe
Residential Commune & Cultural hub	Lodha One World DLF Camellias Jaypee city
Organic farm & Farmers' market	The Farm Green Sense Farms Whole Foods
Sports & Fitness Complex	Siri Fort complex Augusta National Golf Club PGA Academy
Research University & Startup Accelerator	IISC Bangalore Stanford University Y Combinator

brand

attributes and positioning



āyus arises from 'āyus (sanskrit) = longlife'
Gleaning wisdom from the ancient yet timeless systems of 'Swastha' (wellbeing), āyus in āyushća represents a long, healthy, balanced, wholesome and purposeful way of living.

h stands for the Holistic treatise of Health, wellbeing and lifestyle, and Harmony. It stands for being a bridge that connects multiple aspects into a seamless whole

ć implies application of Cutting-edge technologies as well as Community and Connections.

a represents application of Artificial Intelligence and Advanced Engineering in areas such as healthcare to habitats, as well as stands for Authenticity and Altruism

3 dots • • •
represent drawing insights from the past and employing the best of the advancement of the present, for a long, healthful and dignified lifespan into the future - of the current and the future generations.

purple
illustrates the harmonious continuum and synergy āyushća intends to create, just like it connects the opposite ends of the visible spectrum, the violet with the red.

white
denotes light, purity and inclusiveness.

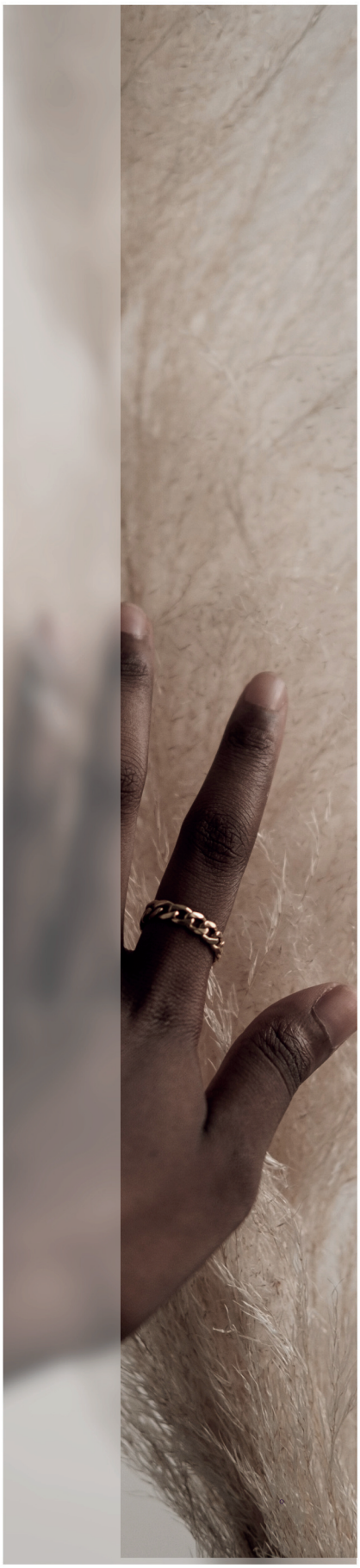
an ecosystem

The brand and the logo stands for, and reflect that āyushća is a multi-dimensional ecosystem, a catalyst and an explorative journey in itself, to healthful and active longevity...

The harmony and interplay of all the components of āyushća, including its natural environment, become the catalyst to healthy and long life, 'āyush' (Sanskrit). Brand āyushća reflects this theme.

The ecosystem of āyushća estates will mindfully orchestrate ancient wisdom traditions with the contemporary, complementary and alternative health systems and practices from around the world as well as modern medicine and technologies, through a collaborative and cross-disciplinary approach.

āyushća is built ground up for this with integrated organic farming, advance theranostics and holistic and wholesome living.





At the infrastructure layer, āyushća proposes to support creation of the larger longevity ecosystem at pandemic scale, such as research labs, diagnostic centres, convention centres, state of the art hospitals with residential facilities.

The brand will represent the cutting edge technology element of the project

sustainability

Renewable resources

Each āyushća estate will host its own solar power plant, effluent treatment, rainwater harvesting and biodynamic farming acreage.

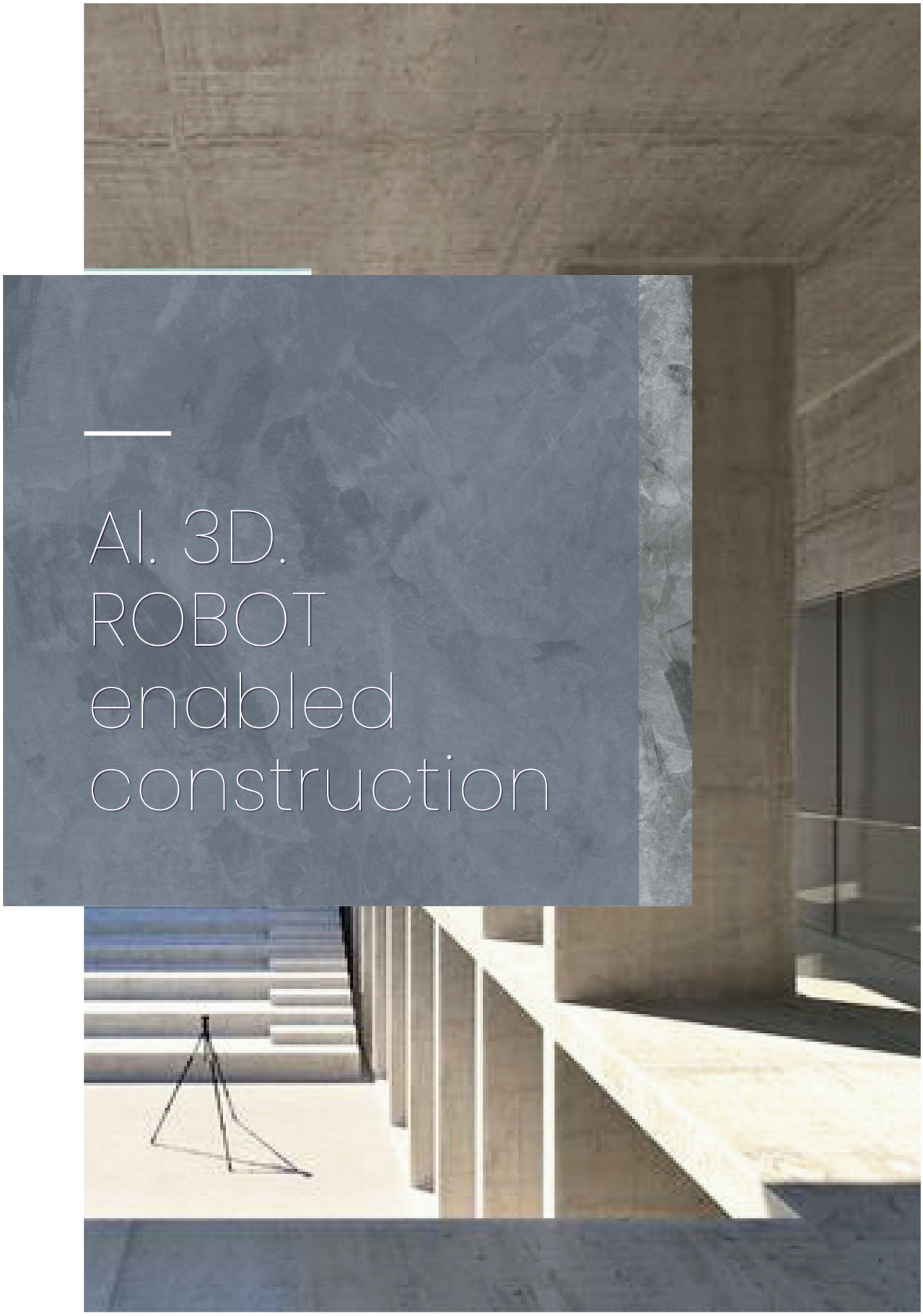
CO2 emissions. Net 0

We expect the co2 emissions from the estates to be 70% lower than other prevalent formats. Carbon sequestration techniques would make it net zero.

SDGs

To operationalise these Sustainable Development Goals, we have clubbed them in six main categories: biodiversity, community, health, materials, water and energy.

The brand will encapsulate these sustainability targets



AI. 3D. ROBOT enabled construction

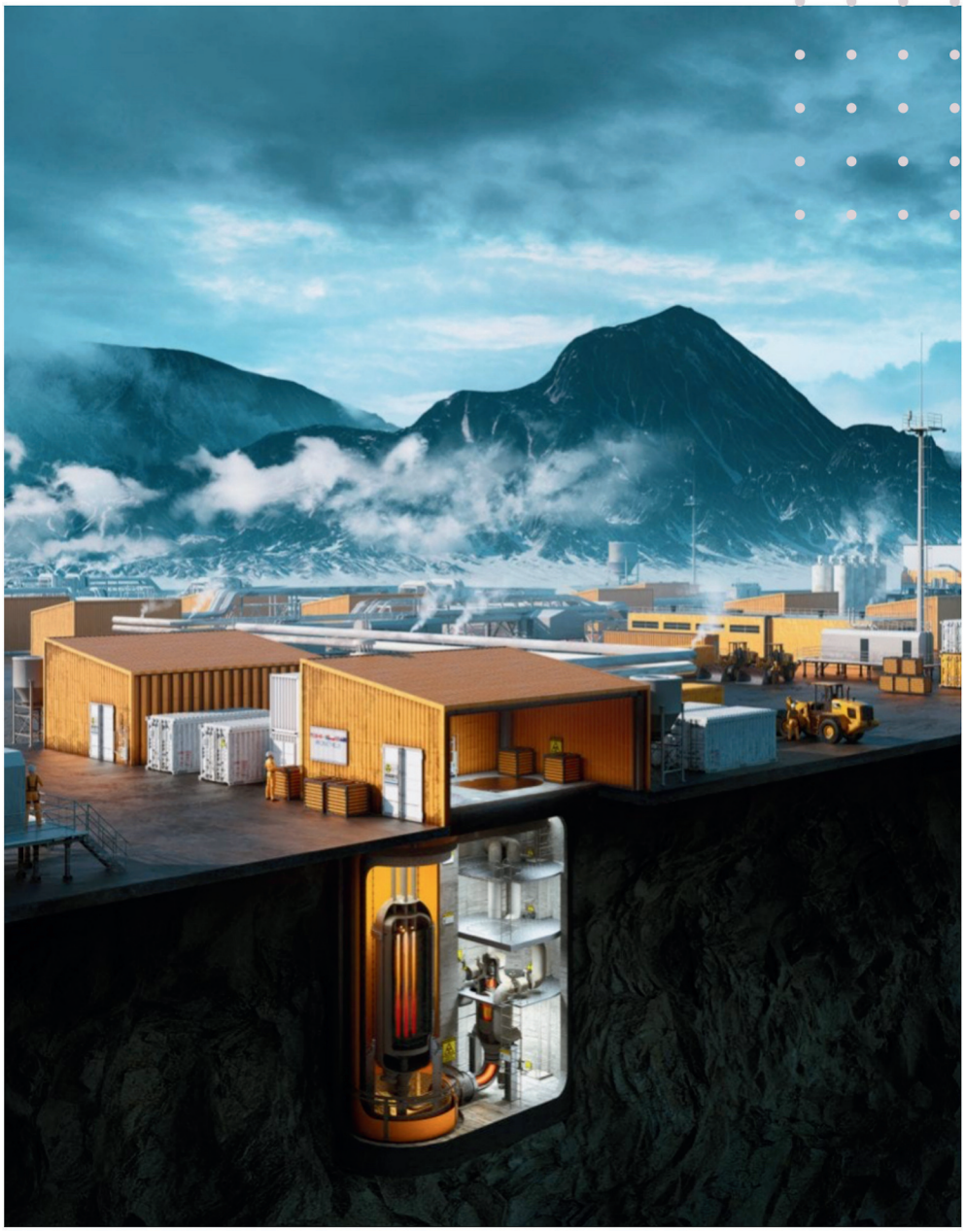




In pursuance of the sustainability theme, the designers will use modern tools from artificial intelligence to 3D printing and robot-enabled construction, according to the geo-climatic context of the estates. This will create a thoroughly analysed and well-thought-out inner and outer spaces and structures, with the most appropriate, wellbeing enhancing, climate-friendly and global warming-ready solutions.







The brand will represent the cutting edge technology element of the project.

2

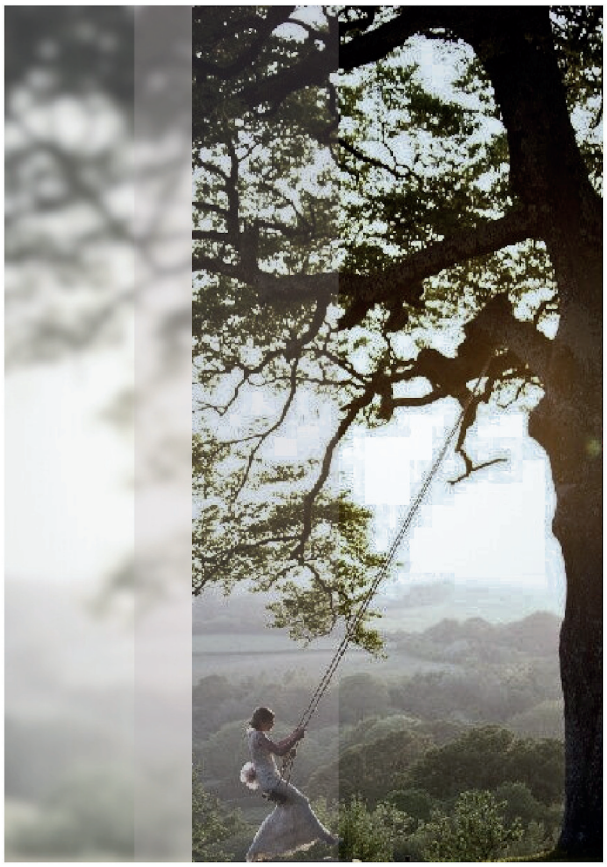
guiding principles

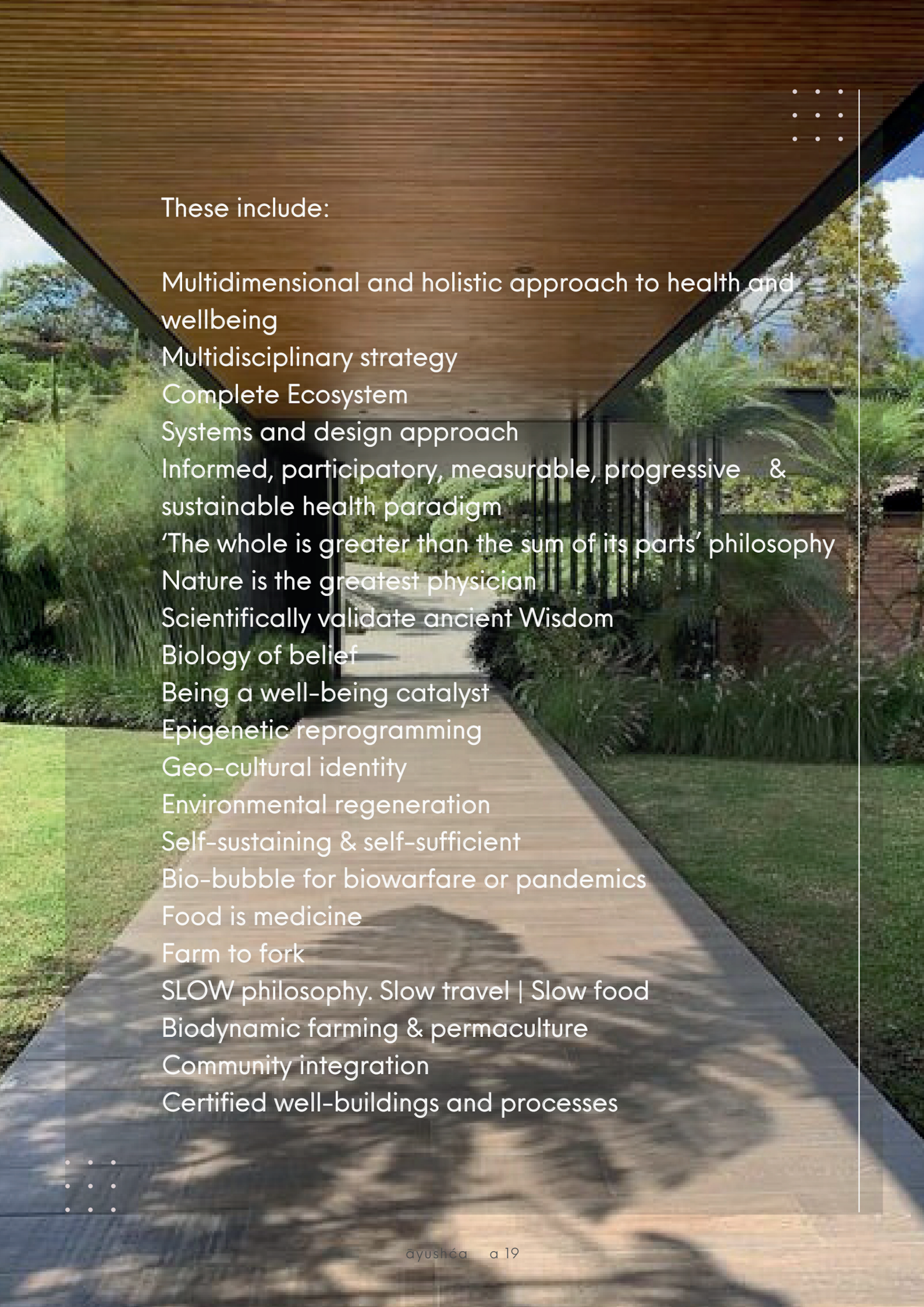
of āyushća estates



āyushća epithets

encapsulate the philosophy and the values. Like a compass, they guide and help to recalibrate, to stay on the course - true to its founding intent.





These include:

Multidimensional and holistic approach to health and wellbeing
Multidisciplinary strategy
Complete Ecosystem
Systems and design approach
Informed, participatory, measurable, progressive & sustainable health paradigm
'The whole is greater than the sum of its parts' philosophy
Nature is the greatest physician
Scientifically validate ancient Wisdom
Biology of belief
Being a well-being catalyst
Epigenetic reprogramming
Geo-cultural identity
Environmental regeneration
Self-sustaining & self-sufficient
Bio-bubble for biowarfare or pandemics
Food is medicine
Farm to fork
SLOW philosophy. Slow travel | Slow food
Biodynamic farming & permaculture
Community integration
Certified well-buildings and processes

ecosystem - systems approach

āyushća commune comprises of all its residents, guests and the team. āyushća will take a systemic approach involving a holistic view, for the greatest benefit of the community it serves.

the whole is greater than sum of its parts

āyushća is modelled after the belief that the whole is greater than the sum of its parts. Therefore, every component of the āyushća ecosystem, its functions and role is recognised as imperative and respected for its contribution to the grand scheme of things, irrespective of the mainstream views.

conducive and catalytic to epigenetic re-programming

Favourable epigenetic re-programming for health and longevity is possible through a conducive and coordinated environment, for rapid results and to jumpstart a conscious health-promoting way of living. Choice of geographical location, design and development, and coordinated multi-speciality systems reflect this philosophy.

environmental regeneration

Restoration, reparation, re-wilding and regeneration goals go beyond mere sustainability and self-reliance to include bio- dynamic and conservation farming methods, permaculture, clean and renewable energy.

community integration

Integration into the local community, adapting local cuisine elements, seasonal produce, supporting local arts and crafts and the artisans' work and livelihood and much more will be at work.

certified buildings and processes

The estates, the buildings and its operations will be certified LEED platinum, WELL buildings and other relevant ones.

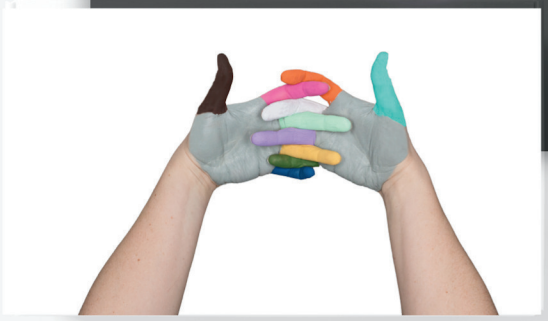
biobubble - pandemic ready

The estates are designed to be isolated and self sufficient in terms of food, water, power and internet for survival in the next pandemic or biowarfare type situation.

3

community interface

of āyushća estates

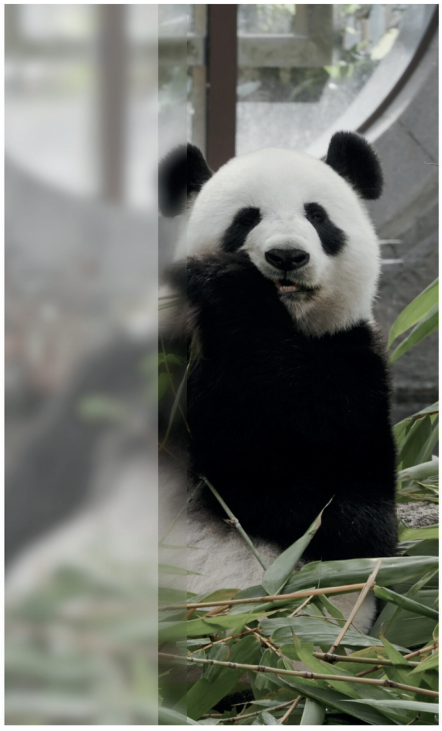




Healthcare is evolving from reactive sickness-disease care to proactive health care that is predictive, preventive, personalised and participatory. Holistic healing systems like Ayurveda do that much better than western medicine does.

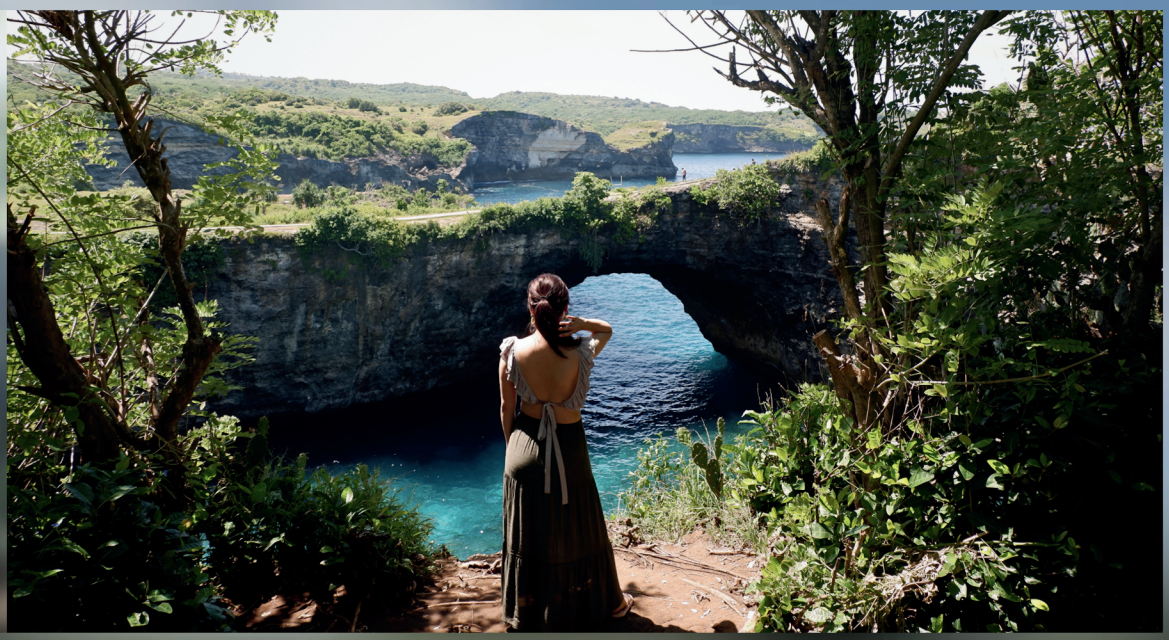
At the same time, climate change and pollution are compounding the ill effects of a compromised food chain. Our cities are choking. This necessitates a new format for holistic living, which helps improve health space.

Habitats, as we know them, are in need of reinvention. These habitats must go beyond just providing a roof above the head with climate control and shared amenities.



The habitats must provide an ecosystem that can nullify and counter the ill-effects caused by accumulated toxicity - from everything we eat and ingest through our skin, indoor and outdoor pollution, compromised lifestyle choices, prolonged undue stress and so on.

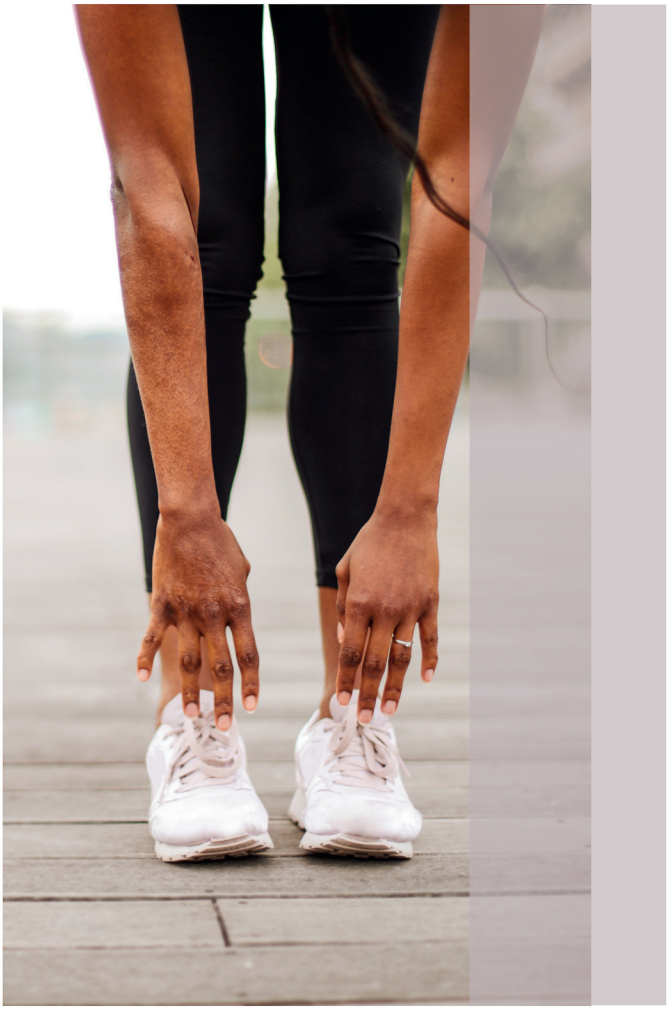
āyushća was conceptualised as part of the megalab mission of the IIT Alumni Council to meet the need for safe and healthspan-enhancing infrastructures in a post-covid age



This sustainable township concept set in the lap of Nature will integrate ancient wisdom with futuristic theranostics (therapeutics + diagnostics) and AI (artificial intelligence) for healthy and active longevity

The estates are essentially configured as Centres of Learning, Development and Life Enhancement.





..

The experiential & residential format spurs developing and expanding our potential, specifically in three ares:

1. Well-way of living by applying the ancient wisdom sciences with modern cutting-edge technologies. Think of Dinacharya, Ritucharya (as per ayurvedic principles) & modern bio technology.
2. Higher studies and Research on relevant subject matters on health, communities, theranostics.
3. Excellence in competitive sports at Olympic level.

āyushća, redefining sustainable tourism







āyushća estates could very well be considered as the rite of passage to a world of social support and social intimacy, a true luxury in the digital age.

They are envisaged to be developed as communes and retreats, for eclectic and discerning individuals. Set against the backdrop of warm and impeccable hospitality with personalised care and attention to detail, these estates will exude elegance and conscious luxury.

āyushćа estates

The megaLab mission is now set to transform preventive health and precision medicine by bringing new technologies across prophylactics, diagnostics and therapeutics to the market. The only way to lead in this market is to invent the future, and that is the DNA being built ground up in all the megaLab consortium entities.

The āyushćа Estates are a Rs 50,000 crore initiative that envisages the provision of a secure bio-bubble for future pandemics in each state of India. The āyushćа Estates will collectively host over 10,000 Ayurveda hospital beds and over 50,000 residential keys.

For regular times, this will create a global-scale medical tourism infrastructure focused on healthy longevity by fusing the principles of traditional healing systems like Ayurveda with cutting-edge technologies. With a rapid response design to reconfigure the spaces into a bio bubble."



Satish Mehta

Convenor

MEGAFUND

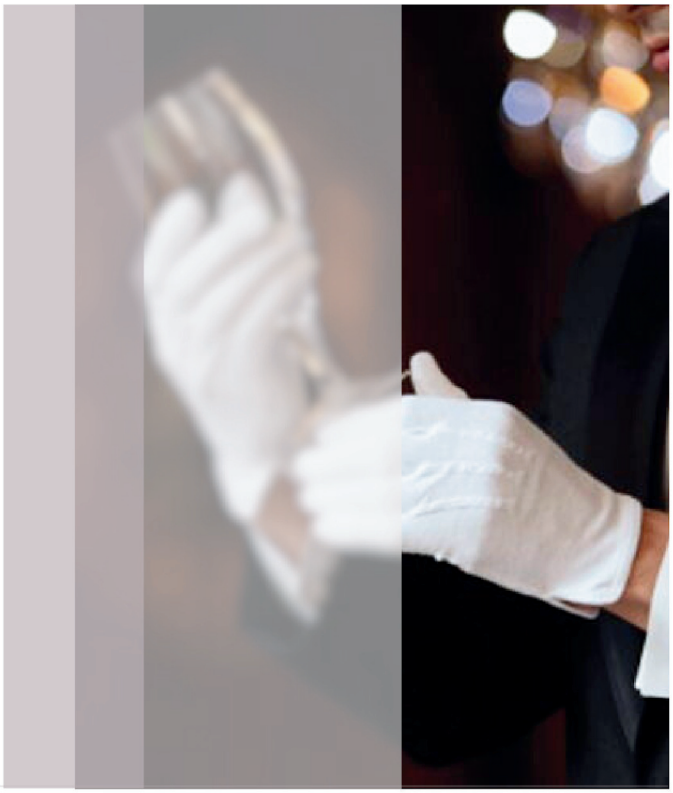
Alumni Council

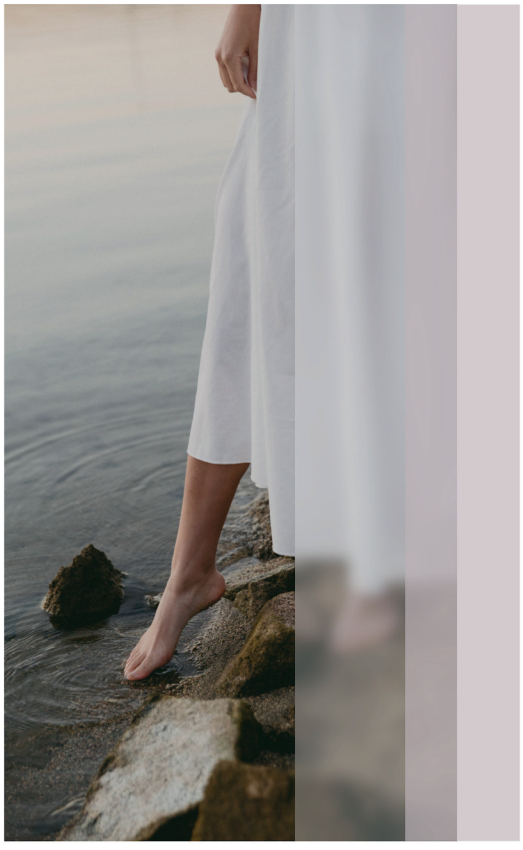
Board Member

Patron Member

āyushćа

āyushća
will resonate with,
and meet the needs of
the discerning and
healthspan and
wellness seekers...

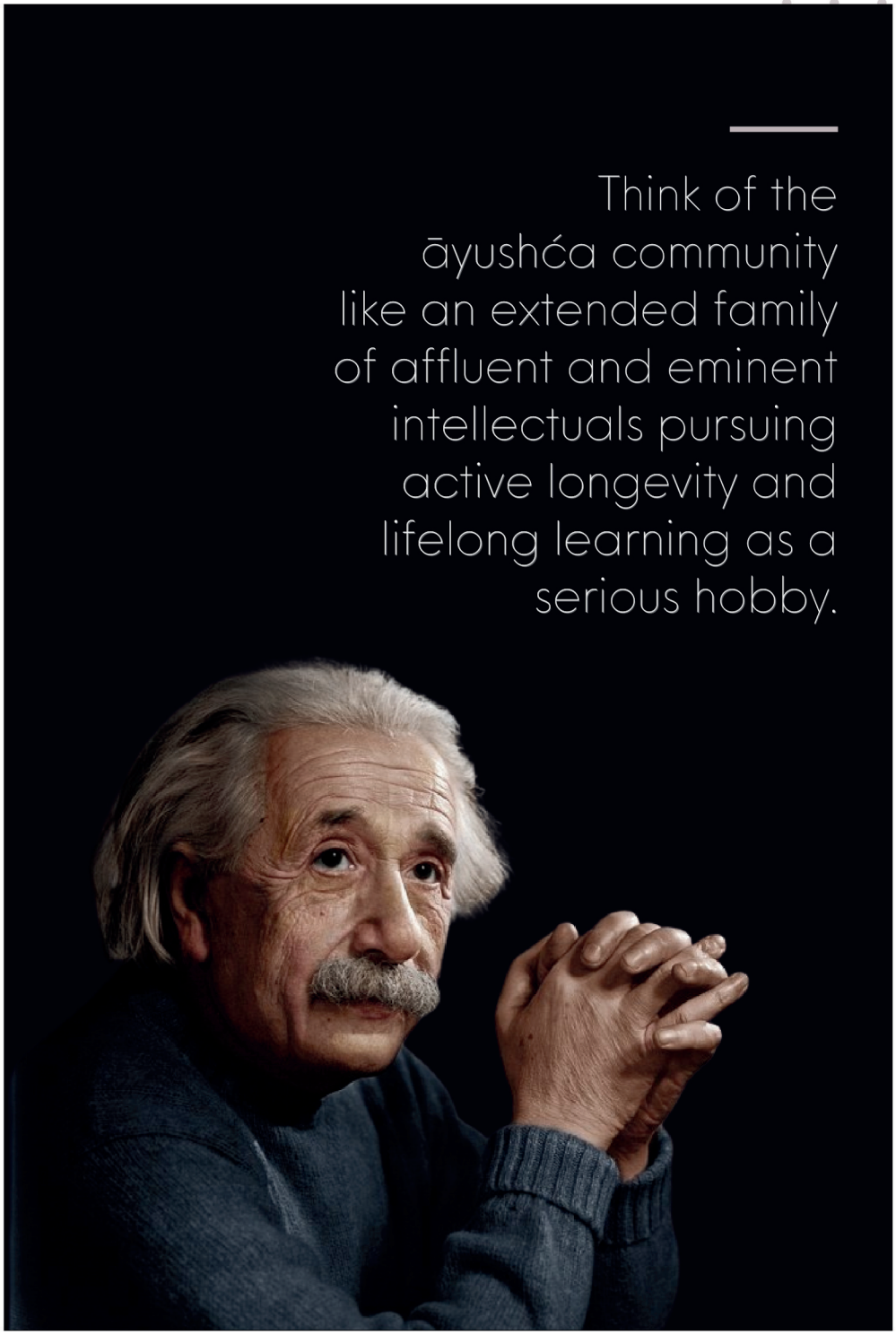




...
keenly aware of and pursue proactive healthcare, active and wholesome lifestyle, and longevity
as a serious pursuit.

willing to devote time, energy and resources in that pursuit.

wanting to access the latest theranostics to achieve and optimise health and longevity markers.



And using the power of their collective resources and determination to access the tools for active longevity and continuous learning.



Concierge-guided, privileged access to global intellectual clubs such as the Oxbridge Club in London is one of the membership benefits.

annual retreats -reboot protocols



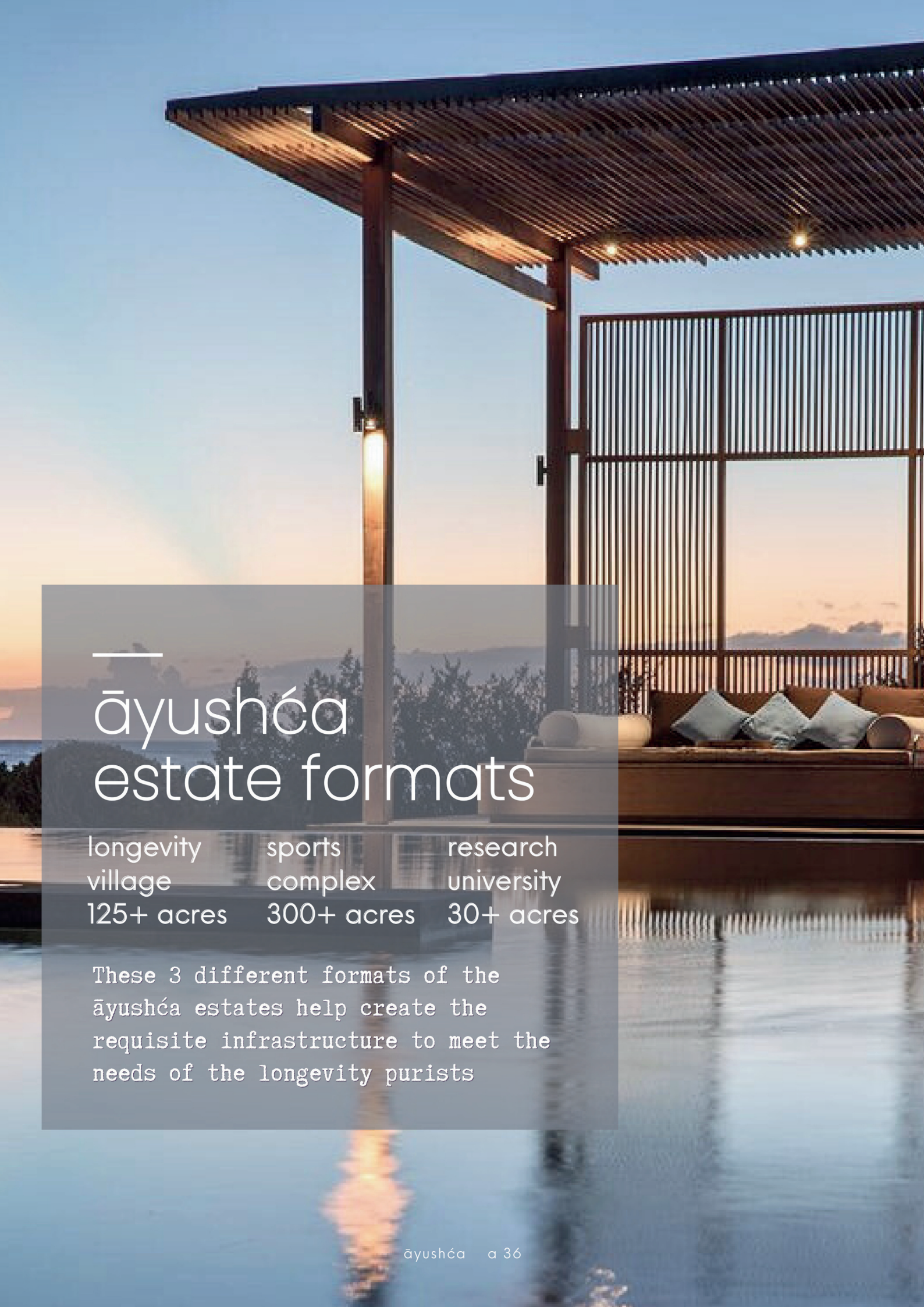
Each āyushća member will be encouraged to retreat 3-4 weeks annually to reverse the cumulative, chronic and harmful effects of compromised food, depleted soil, environmental pollution and undue stress, diseases and disorders, to build immunity, reclaim vitality and promote longevity.

4

estate formats

of āyushća estates





āyushća estate formats

longevity village	sports complex	research university
125+ acres	300+ acres	30+ acres

These 3 different formats of the āyushća estates help create the requisite infrastructure to meet the needs of the longevity purists



Each of the āyushća estate formats- the Longevity village, Sports complex and Research university - is a microcosm of the nine essential components that constitute an āyushća. But curated with varying focus and different proportions.


āyushća
RESEARCH CAMPUS
AN IIT ALUMNI COUNCIL INITIATIVE
āyushća
LONGEVITY VILLAGE
AN IIT ALUMNI COUNCIL INITIATIVE
āyushća
SPORTS ACADEMY
AN IIT ALUMNI COUNCIL INITIATIVE

estate formats & max. density

30 acre/ 125000 sqm format | G+3
Plinth area to plot 0.47
Conventional construction to plot area 0.66
Sustainable construction to plot area 1.24
Total density 1.89

125 acre/500000 sqm format | G+2
Plinth area to plot 0.15
Conventional construction to plot area 0.16
Sustainable construction to plot area 0.3
Total density 0.45

300 acre/1250000 sqm format | G+1
Plinth area to plot 0.09
Conventional construction to plot area 0.07
Sustainable construction to plot area 0.12
Total density 0.19



The estates will provide the perfect ecological canvas based on epigenetic principles to work on reversing illness, ageing related decline, preventing future illness and aiding active longevity – in the current context of global warming, mounting and all pervasive pollution, prolonged stress, social disruption and shifting paradigms.


megaSpheres
quest for quallity of life
MEGASPHERES
Transformation through Technology

iit ALUMNI COUNCIL

megaSpheres

QUALITY OF LIFE INITIATIVE
OF IIT ALUMNI COUNCIL

The megaSpheres initiative includes three mission organisations, and three mission facilitators synchronised to achieve its goal of accelerated socio-economic progress through technological and financial interventions.

Idea stage ventures are incubated at the INCUBATOR.

FORUM facilitates access to strategic resources & growth capital.

INSTITUTE helps access research resources & indigenous technologies.



. IIT Alumni Council initiatives .

FORUM

.PROFESSIONAL SERVICES.

INCUBATOR

.STARTUP ACCELERATOR.

INSTITUTE

.APPLIED RESEARCH .



megaLab

healthspan enhancement initiative

megalab.in

The C19 Task Force was set up by the IIT Alumni Council as a Rs 700 crore initiative to catalyse the national fight against Covid. The C19 Task Force morphed into the MegaLab mission in August 2021.

MegaLab advances preventive health and longevity through a fusion of traditional medicine systems with cutting-edge technologies and artificial intelligence.



megaReach

global alumni outreach
& participation

megareach.in

MegaReach
for an outreach to IIT alumni around the world who can help in the identification, development and deployment of key technologies involved in the MegaFund's target areas for investment.



megaFund

social fund regulated as an AIF fund by SEBI

megafund.in

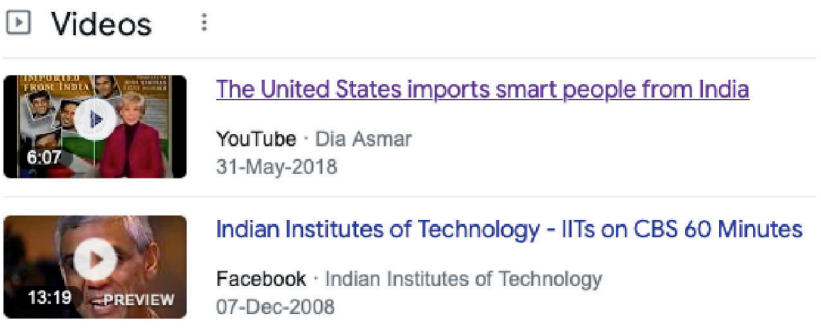
The MegaFund is a consortium of social and venture capital funds with a target corpus of Rs 21,000 crores and a fund life of twenty years. The anchor entity PanIIT Fund is registered with and regulated by SEBI under the Social Impact Fund framework under the AIF Regulations 2012.

The MegaFund promotes the progress of science and technology, advances national health and prosperity and helps to secure and lead in key strategic technologies including climate change.

glide path



The Alumni Council is pursuing a technology intensive model which uses paradigms from the startup and venture capital world to disrupt the social sector. For the supported entities to be self sustaining and internally fuelled in the long term – the focus is on ventures where benefit created is captured in the long term revenue – either as profitability or as valuation in the startups. āyushća follows this theme.





The quality of life initiative was the brainchild of Ashok Madhukar, a tall leader who played a stellar role in the creation of IIT Alumni Movement.

Late Ashok Madhukar, who passed on in 2021, was a BTech from IIT Kharagpur. He was awarded the Distinguished Alumni by his alma mater. Ashok spent the last three decades of his life in the development sector - first as a part of the Social Fund for Development in Egypt and thereafter as a leading consultant to the government, specialising in the India-Africa corridor and the north east sector.

In 2016, Ashok introduced alumni leaders of the IIT community to the "quality of life" framework. His theory was that if we worked towards deploying technology to address all aspects of quality of life, we could create a blueprint for national progress. It was his strong conviction and passion for creating a nation building organisation that eventually led to the formation of the IIT Alumni Council.

He achieved in his lifetime, what may have otherwise taken decades more - to develop the unique core theme for the IIT Alumni movement. It is thanks to his foresight and guidance that the IIT Alumni Council and related mission organisations shifted focus - inspite of stong opposition from IIT alumni or the IITs, to nation building.

“

IIT Alumni Council is now the largest global body of alumni across all the twenty-three IITs and partnering Universities.

The IIT Alumni Council aspires to align Alumni resources towards catalysing India’s technological renaissance for a digital society.

The member alumni actively participate in social ventures that are configured to solve key national challenges through the deployment of appropriate technologies using the well-proven venture capital funded start-up format.



Ravi Sharma
President &
Chief Volunteer


megaLab
a health mission of megaSpheres
MEGALAB
active longevity

how it all began...



As an emergency response to the covid pandemic, the IIT Alumni Council set up the CI9 Task Force in March 2020.

iitC19 TASK FORCE

Over 25,000 IIT Alumni rallied resources for a solitary vision - to beat the Sars Cov2 virus

Based on their learnings from handling 20,000+ covid patients and enabling millions of RTPCR tests, they vowed to engineer a new approach to health and longevity by preventing illness and age-related degeneration.

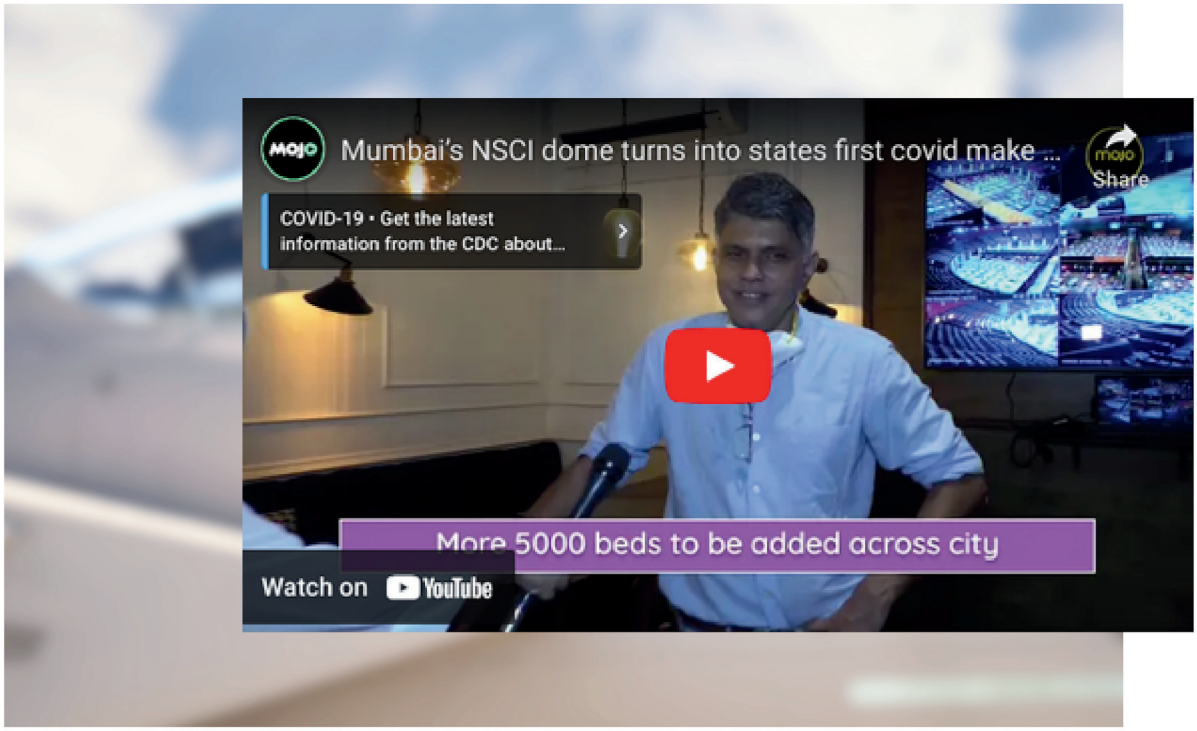
Organised as the C19 Task Force, the group addressed challenges in testing and treating covid.

The C19 Task Force morphed into the megaLab initiative on 15th August 2021.

The āyushća Estates are a part of the megalab ecosystem

blitz of 100-hour projects

Set up with a target outlay of Rs 700 crores, the C19 Task Force - under the chairmanship of Dr Vijay Raghavan and Dr Arindam Bose, helped create 100-hour projects faster than anywhere in the world.



Mumbai's NSCI Dome turns into the state's first Covid makeshift hospital helmed by a world famous weight-loss specialist surgeon

infrastructure & support systems galvanised

The megalab mission also facilitated the swift creation of supplementary infrastructures such as Covid test buses, oxygen facilities and testing laboratories.



The megalab bus was transformed from a regular passenger bus taking inspiration from private aircraft interiors. Within 100 hours.

ground zero NSCI dome

One doctor.
Eighty volunteers.
Eight hundred beds.
and,AI

NSCI Dome was a contactless Covid hospital with containerised ICU beds.

A sports stadium was transformed within hours into a covid hospital with paper beds, designer bed sheets, live entertainment and fully computerised operations .....
all unlike any conventional hospital.





NSCI dome visuals...







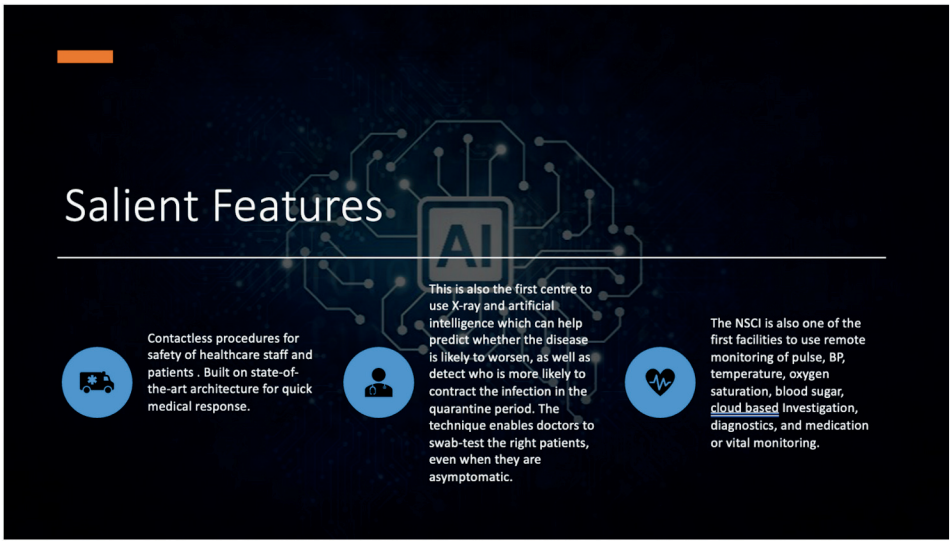
A range of simple innovations ranging from paper beds with designer bed sheets helped set up a hospital in hours whilst regular hospital beds made their way in time.

The paper beds also allowed various sensors to be embedded in the bed allowing for remote monitoring of various parameters using software speed developed by a wide range of startups.

NSCI dome

As part of this endeavour, an 800-bed covid hospital with ICU at the NSCI Dome in Mumbai.





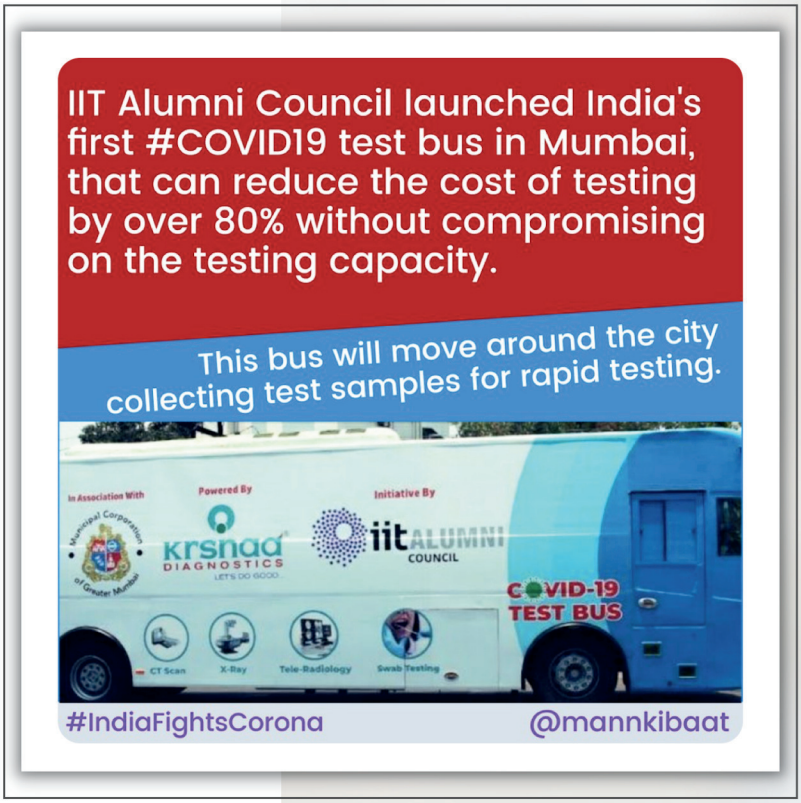
contactless, AI, remote monitoring ...

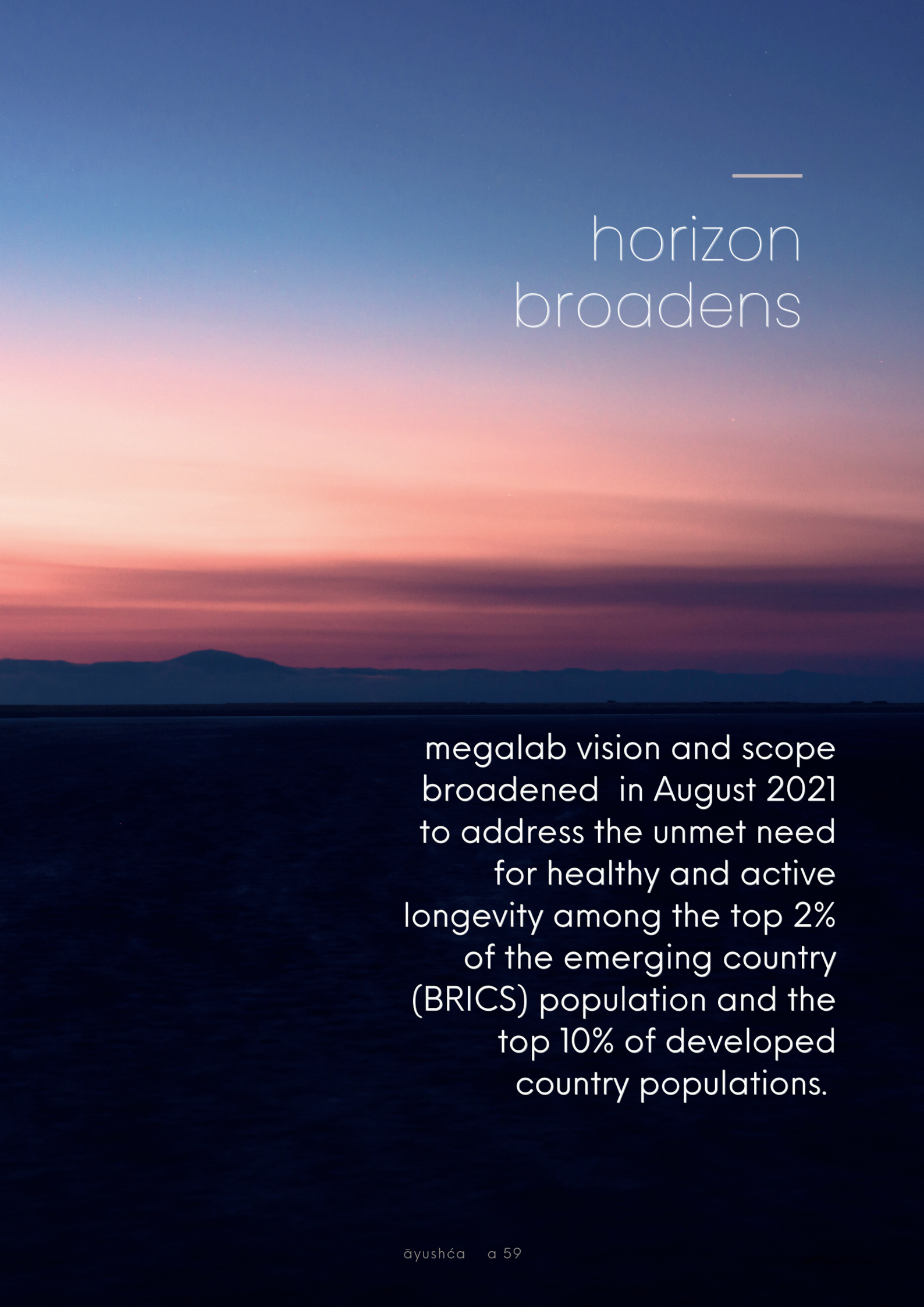
media coverage

The mass genetic testing initiative of the C19 Task Force helped create cost-effective indigenous testing capacity.



The original idea of placing a test lab on a bus and a mobile ICU in a shipping container came from the IIT Alumni Council task forces. As did the idea of pooled testing and covid variant tracking using Nanopore sequencing.





horizon broadens

megalab vision and scope broadened in August 2021 to address the unmet need for healthy and active longevity among the top 2% of the emerging country (BRICS) population and the top 10% of developed country populations.

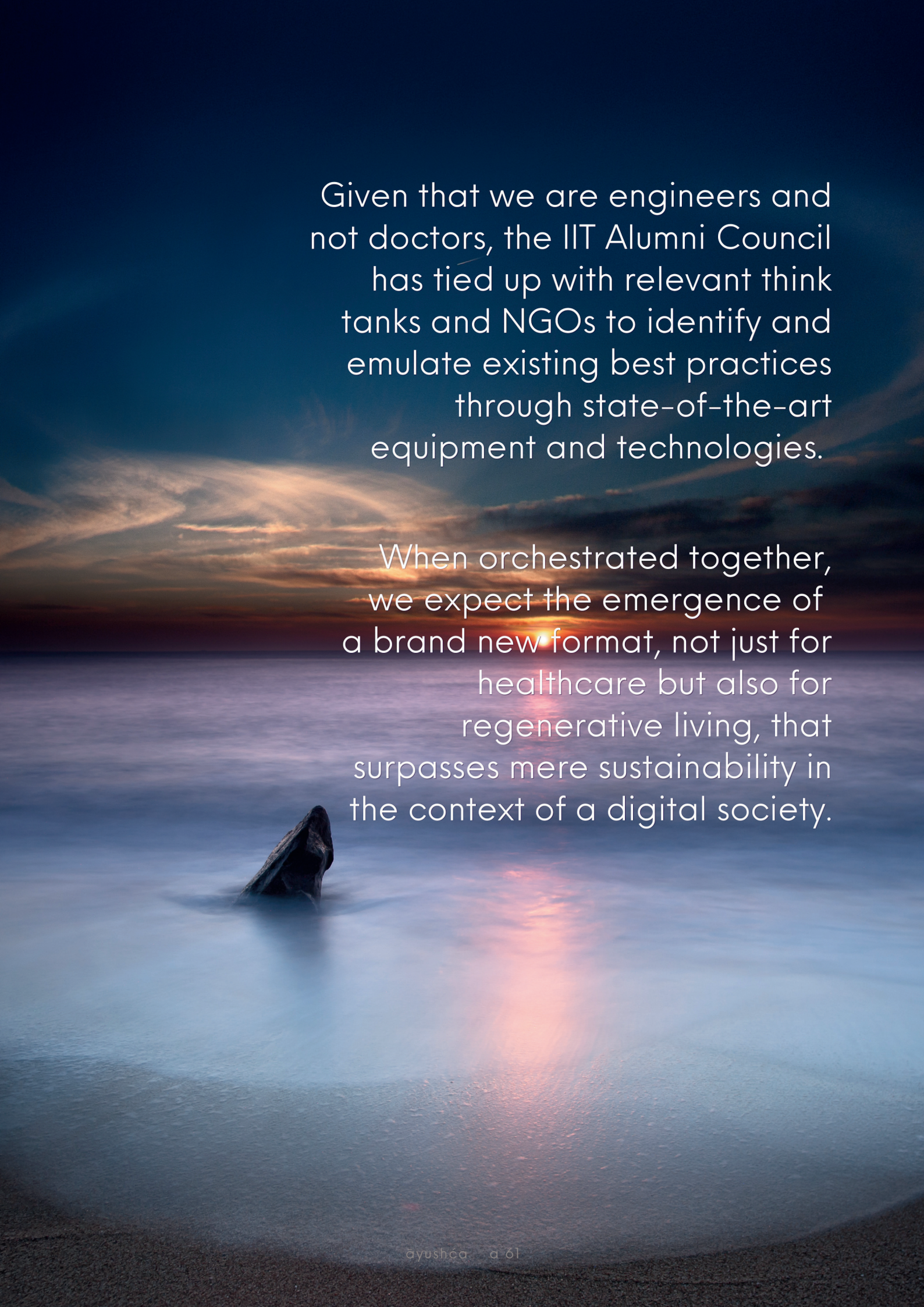
āyushća estates are under the overall purview of the megalab mission

āyushća
RESEARCH CAMPUS
AN IIT ALUMNI COUNCIL INITIATIVE

āyushća
LONGEVITY VILLAGE
AN IIT ALUMNI COUNCIL INITIATIVE

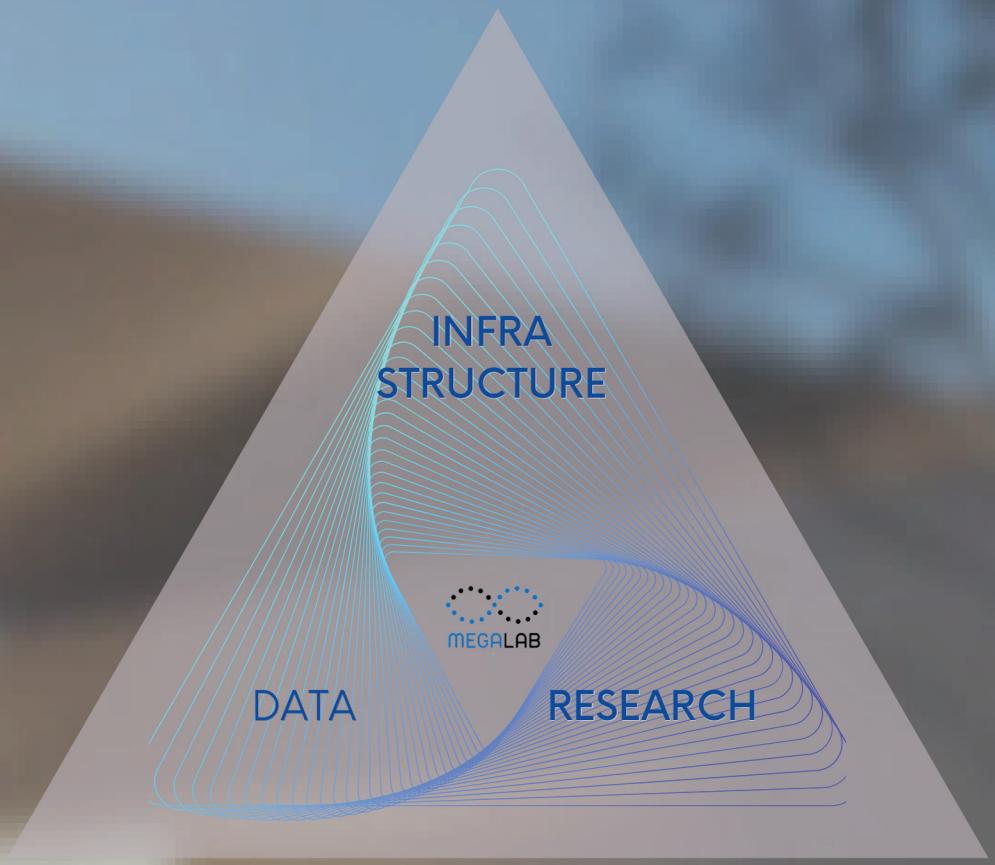
āyushća
SPORTS ACADEMY
AN IIT ALUMNI COUNCIL INITIATIVE





Given that we are engineers and not doctors, the IIT Alumni Council has tied up with relevant think tanks and NGOs to identify and emulate existing best practices through state-of-the-art equipment and technologies.

When orchestrated together, we expect the emergence of a brand new format, not just for healthcare but also for regenerative living, that surpasses mere sustainability in the context of a digital society.



megalab comprises of these three key segments

multi-pronged collaborative strategy

The effectiveness of the covid activities was further enhanced through multiple measures

MoUs with government research establishments like the CSIR IGIB, which became the nodal centre for tracking virus variants and mutations.

MoUs with various academic institutions from IIT Ropar to ICT University Mumbai to the 950 college Mumbai University.

Alliances with a consortia of startups from related health fields to create the megaLab Consortium.

These included a hyperspectral vision company, an ayurvedic proteomics startup, an infectious disease prophylactic manufacturer and a biologics company.


Taking charge of one's own health is the first step to longevity.

The starting point for the longevity seeker is to take control of one's own health

Next, you need to be part of a powerful self help group.



Such a community of life-minded intellectuals does not exist in India among the longevity seekers



Tomorrow's elderly could look and feel younger and be as energetic. That said, this is not a journey to embark on only after a certain age. Today's youth also should start now. Proactive care should start now for all, irrespective of one's chronological age. The paradigm of old age being linked to illness and disability needs to be revisited.



In addition to the data platform, you need a powerful, trusted and continuously updated information source - available directly to the longevity seeker.



The principle enabler of
a pro active approach is timely access
to accurate data and continuous
analysis, updation and tracking of
that data.


6
digital
a health mission of megaSpheres
āyushća

end-to-end single digital card



āyushćа goa card will be a Aadhar or passport linked id smart card based on the India Technology Stack. The card will permit access to and payment on all transport facilities, parking, government services, toll charges, tourist attractions entry charge, use of electric carts in pedestrian areas etc. The card will be compatible with the Kodoy health card for continuous health monitoring.

end-to-end audio tour



āyushća goa app will facilitate virtual walk through the entire state using a virtual reality headgear like apple/ oculus. It will also be possible to hear a running audio commentary in 65 languages from the app as a tourist moves around the state on foot, by cycle or in a motorised vehicle. The audio guide will describe the sights and stories connected with the location of the device.

state wide digital operating system



āyushća digital backbone will be hosted on the data centre proposed to be located in the Research University module of the āyushća campus. The “born digital” backbone would be “cloud native” so as to provide the lowest possible latency and highest possible responsiveness

6

competition

a health mission of megaSpheres

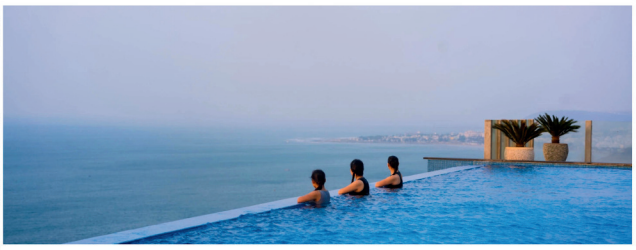


The āyushća task force members studied a range of existing models - both domestic and international - in healthcare, alternative healthcare, wellness and hospitality in India and overseas.

alternative health & wellness - India

Ananda, Rishikesh
Atmantan,Pune
Ayurvedagram, Bangalore
Indus Valley Ayurveda Centre, Mysore
Jindal Health farm, Bangalore
Kalari Kovilakam, Palakkad
Patanjali, Haridwar
Pema, Visakhapatnam
Shreyas Ayurvedic Rejuvenation Retreat
Six Senses, Fort Barwara
Somatheeram, Trivandrum
Soukya, Bangalore
Vana, Dehradun (now Six Senses Vana)
Vedic village, Kolkata





alternative health & wellness – international

Canyon Ranch, USA
ChivaSom, Thailand
Kamalaya, Thailand
Lanserhof, Germany, Austria
Naked Retreats, China
Rakxa, Thailand
Rancho La Puerta, Mexico
Serenbe, USA
Sha Wellness, Spain
The Vivamayr, Austria
YO1 (Yuvan Health) USA









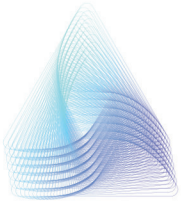
hospitality

Four Seasons, Mumbai
Lodhi, Delhi
JW Marriott, Mumbai
Ritz Carlton, Pune
Taj Palace, Mumbai
Taj Rajkutir, Kolkatta
Taj Rishikesh, Rishikesh
The Oberoi, Rajvilas
The Oberoi & The Trident, Mumbai
The Oberoi, Delhi
The Oberoi, Kolkatta
The Oberoi, Sukhvilas
The Roseate, New Delhi
The Roseate Ganges, Rishikesh

healthcare

Bumrungrad, Thailand
John Hopkins, USA
Mayo, USA

āyushća philosophy



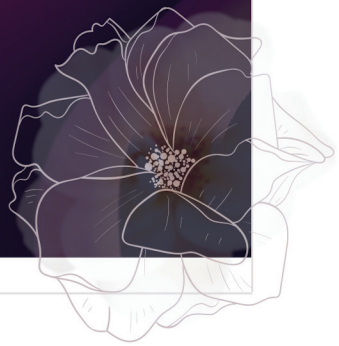


wellbeing / *swastha*

||Samadoshahsamaagnishchasamadhathumalakriyah
Prasannaathmendriyamanaahswasthaithyabhidhiyathe||

is a state of equilibrium [sama]
of the bio-energies [doshas]
tissues/organs [dhatu]
metabolism [agni]
metabolites [malakriyas]
and a state of
contentment and radiance [prasanna]
of the soul [atma] senses [indriyas]
and heart/emotions [mana]

. Sushruta Samhita.
Ayurveda text 600 BCE



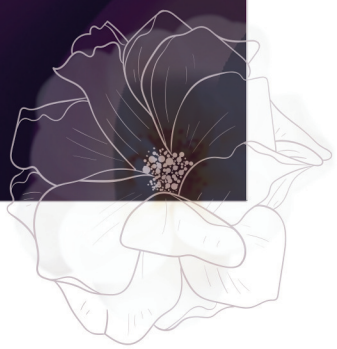


āyushćas are conceptualised as comprehensive ecosystems that are conducive to wholesome living for its communities

. . .

āyushća's paradigm of health/wellbeing is multidimensional.

It includes physical, mental, spiritual, social and environmental dimensions.



a wellness approach to life

It is a dynamic process of pursuing well-informed choices and lifestyles that enhance our holistic health and well-being. It is to function optimally in our own contexts.

It is rather our attitude to the gift of life, and taking responsibility for our health - to live it purposefully and well.

Not selfishly, but honouring our interconnectedness with other beings, nature, and earth, our home. It is a way of conscious living.

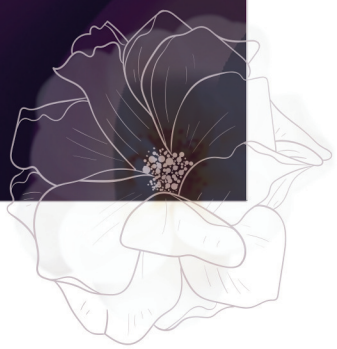
the differentiator



From the vantage point of authentic wellness, we can identify the crucial differentiator for the state's wellness positioning:

- Provide access to clinical-level therapeutics and data platforms to analyse the same
- help adopt healthy habits and practices to improve and sustain multidimensional health
- address all the aspects of wellness
- authentic experiences that connect to local community and culture responsibly

Creating awareness through curated experiences and opportunities for practical learning of healthy habits, nutrition, and lifestyle choices relevant to our personal contexts are essential parts of wellness facilitation. And form the core philosophy of āyushća.



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