Gravity

A Smart Campus and Community

Clean and Inclusive Growth Strategy

Fast-track to the future, naturally | thisisgravity.co.uk

1.0 Gravity: Clean and Inclusive Growth

Creating a route to delivering clean and inclusive economic growth is the greatest industrial opportunity of our history. @ Gravity, our strategy is to seize this opportunity and make a smart campus and integrated community that delivers the 4th Industrial Revolution, providing an exemplar in the UK and a beacon for wayfinding on this Clean Growth journey.

Gravity establishes the foundations for accelerating and transforming growth whilst simultaneously cutting greenhouse gas emissions, creating good jobs, low carbon homes and realising positive social outcomes for local communities.

Gravity will create a low carbon campus generating more than 4000 green collar jobs, providing both a strategic economic stimulus to drive economic renewal, shaping and connecting to a green supply chain across the UK. Home to international business, start-ups and SMEs, Gravity will be a home for Clean Growth and green industries, creating the space to innovate and create green solutions from energy solutions to smart homes and new smart mobility choices.

Gravity will become the engine room of the Heart of the South West Local Enterprise Local Industrial Strategy. Delivering transformational investment opportunities, unlocking connectivity through infrastructure, and bringing new higher value employment and skills opportunities to the South West.

Crafting and shaping an innovative housing offer is vital to attract commercial investment. Low carbon homes and new accommodation choices can reduce the need to travel, incentivise young people to live in the South West, and draw new investment and housing products to the UK.

Whilst we recognise that investment and technology breakthroughs will help us meet our Clean Growth commitments, to meet the Clean Growth Grand Challenge we also need to ensure that we maximise the benefits of these investments for the host communities. The results will be that Gravity delivers;

- social value
- community cohesion
- enhanced digital infrastructure
- accessibility to new green spaces and well-being opportunities
- new jobs and training
- smart mobility options
- digital connectivity

We cannot predict every technology breakthrough however, we can design the best possible future-resilient infrastructure for the social and economic environment for innovation and investment to accelerate clean and inclusive growth.

We have already started this journey. For example, our **4R's** approach to establishing the development platform has seen us **Recover, Recycle, Repurpose** and **Reuse** a vast range of natural and legacy resources, which are currently achieving 100% landfill avoidance. We are also ensuring that our journey aligns to global standards including the UN Sustainable Development Goals (UNSDG) through embedding Environmental and Social Governance (ESG) practices into the Clean and Inclusive Growth Strategy. Evaluation of the UN SDGs has resulted in 12 goals being identified as highly relevant and applicable to Gravity, and these have been organised into five key themes'

Wellbeing & Inclusivity

Human centre investment decisions will drive the need for infrastructure, industrial growth and design. Our strategy looks to enable work life blending and open access for all build mental wealth as a valued asset, enhance self-awareness and management.

Clean Energy

Gravity goes beyond just embedding infrastructure to enable low and zero carbon energy use. Through investment into access to 'national' scale power infrastructure Gravity will become a centre for advancement in manufacturing and supply of clean growth technology

Natural Resources

Focusing on natural capital receipts that both enhance benefits to the planets as well as benefits from investments into nature.

Clean Transport

Through linking the geographic benefits of energy and data infrastructure Gravity will create the stimulus to enable the transition to zero carbon movement.

Digital Revolution

Gravity will play a key rolling in enabling the South West to 'level up' in the digital economy creating jobs by attracting innovative forward thinking companies.

2.0 The Opportunities and Challenges

In the UK, we have responded to the global climate emergency and committed to 'net zero' carbon by 2050 through the Climate Change Act. This national commitment to deliver a net zero carbon economy by 2050 requires a seismic shift in how growth and economic renewal is planned and delivered. Emphasis will shift from low technology inefficient disconnected systems to a smart interconnected system that meets multiple demands simultaneously and repurposes waste products into the supply of another demand.

Gravity's location gives it a substantial advantage to capitalise on this economic opportunity. The site sits within an area that includes nationally important clean power generation at Hinkley, new energy fuel generation including hydrogen, biofuels and dedicated biomass generated across Somerset, and an increasing regional renewable energy supply.

Through direct access to the UK National Grid, Gravity has access to national power infrastructure which continues to decarbonise. This will be supplemented by local smart renewable and low carbon energy solutions procured through partners such as E.ON.

Gravity also sits at a junction of national fibre infrastructure. This creates an opportunity to develop a platform for the 4th Industrial Revolution defining advancements in cyber-physical-biological technology advancement.

Our challenge is to disrupt the convention of how success is measured and over what time period. Conventionally, economic growth, inclusivity and environmental impacts are considered separately, and we are defining success through new metrics which bring these dimensions together. We see success in terms of the social rate of return and greening the pound which will be achieved through Gravity's 4th Industrial economy. This may need to consider investment beyond normal investment cycles or indeed investment against the ticking clock of the climate emergency.

Gravity's Clean Growth Strategy breaks the shackles of 20th Century economic definitions that created unabated greenhouse gas emissions. To ensure this, we are developing an Environmental and Social Governance Policy to set out our responsible approach to investment, to encourage green finance, as well as to inform management practice. We will establish operational campus management protocols and standards to ensure the delivery of principles, priorities and best practice on the ground.

3.0 Our Mission

To create decent work and inclusive economic growth in conjunction with climate action, whilst contributing to the broader suite of UN Sustainable Development Goals.

Our Journey

This has been initiated by our Strategic Design Code relating to our existing planning consent as part of an agile planning strategy. By being innovative and creative with the condition discharge process, we can immediately refine our approach and ambitions with agreed parameters. This includes a set of principles that will enable the acceleration of sustainable economic growth, which itself will decreasenational greenhouse gas emissions.

Our approach is to nurture low carbon innovation, processes and systems within the development to enable future occupants and communities to share our aspirations. We will do this by maximising the social and economic benefits of the transition to a zero carbon economy.

We are on a journey to make this happen and quickly. As an Enterprise Zone, Gravity is well placed to fast track investors and occupiers towards a net zero carbon future.

A major next step, is refreshing the vision and planning consent for Gravity through a Local Development Order, and to identify the basic infrastructure ingredients that will unlock the 4th Industrial economic revolution at our campus. with Integrated homes and leisure opportunities included, creating an exceptional place to attract investment into the UK.

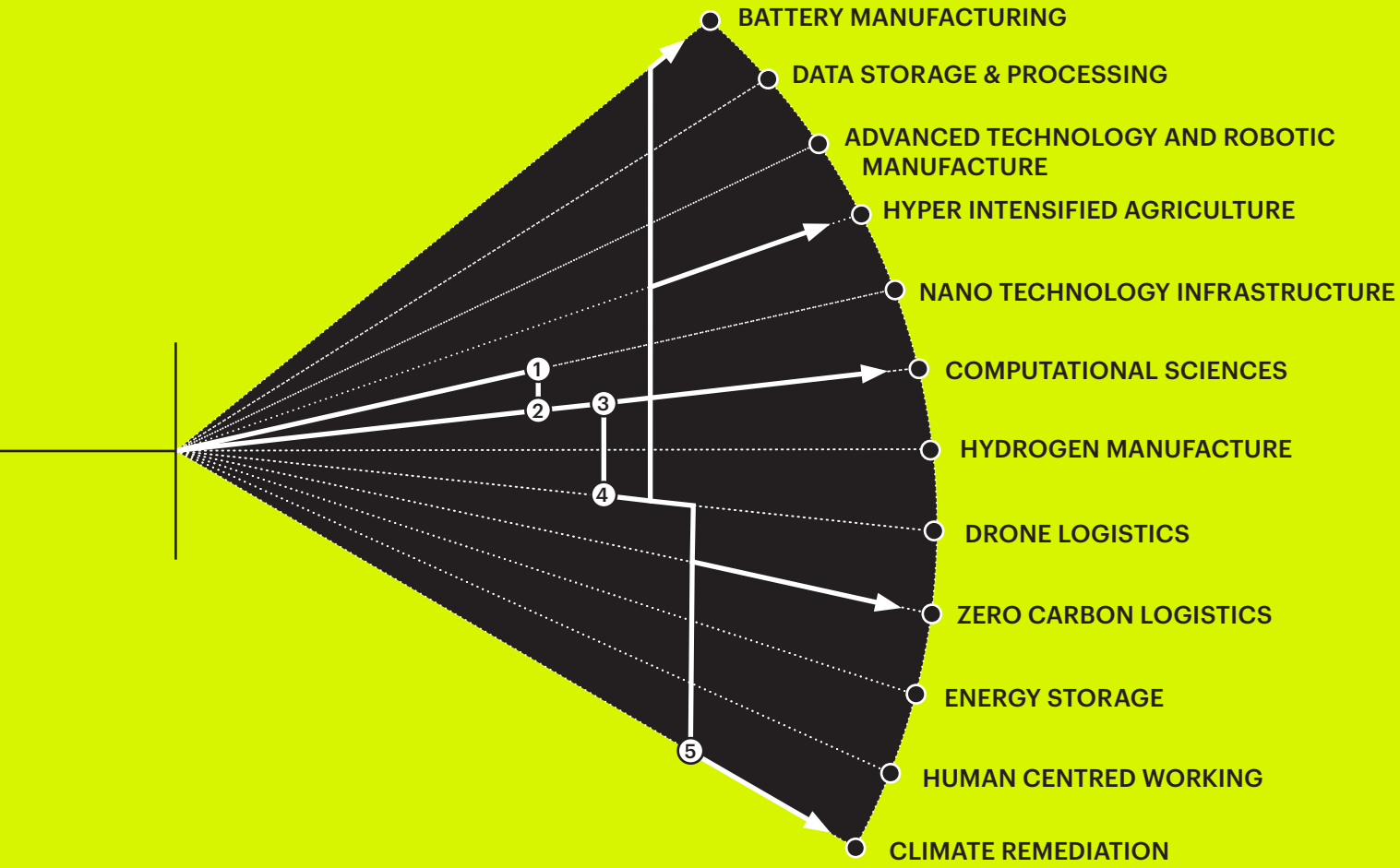
We aim to de-couple the existing consent from fossil fuel and carbon emitting uses to re-evaluate and reconsider a clean form of sustainable development that addresses economic uncertainties and establishes the foundations for clean economic renewal. This response must re-imagine solutions and create a flexible framework that is highly responsive to market needs and investment opportunities. The Gravity site must be internationally competitive and attractive before it can translate opportunities into tangible outcomes on the ground for communities.

Tracking our progress

Measuring and verification of clean growth will support our journey. We have established a reporting framework which will be used to guide the implementation of our Clean Growth Priorities through a series of waypoints and allow reporting against our commitments to the UN Sustainable Development Goals. This will be underpinned through the Local Development Order.

We are planning a network of sensors and edge computing that will allow us to track real-time progress in achieving Clean and Inclusive Growth which will include social indicators and proxies to clean growth such as air quality, energy use, and wellness.

Creating a process that moves with innovation and time



Setting waypoints -

① CONCEPT DESIGN

② LOCAL DEVELOPMENT ORDER

③ MAJOR TECHNICAL INNOVATION

④ DETAIL DESIGN

⑤ POTENTIAL END POINTS

4.0 The Gravity 50

Our implementation strategy is defined by a set of priorities that clean and inclusive growth will be achieved through.

Aligned to the UK Industrial Strategy, our priorities cover energy, transport and natural resources with an additional focus on wellbeing and digital, to emphasise human and transformative needs as an integral part of enabling clean and inclusive growth

Wellbeing and Inclusivity @Gravity

1. Champion the South West as the adventure capital of the UK, creating a unique proposition for on and off-site leisure opportunities.
2. Enable the South-West to 'level up' in digital technology as part of the Heart of the South West's Local Industrial Strategy by establishing a regional digital innovation alliance.
3. Create a 24/7 smart campus and community that provides flexibility to live, work and play.
4. Provide for the social and economic needs of the local community, integrating access, opportunities, and wellbeing.
5. Co-design places and spaces to meet the needs of specific businesses and their workforce to ensure wellbeing.
6. Be a test bed, home of research and development, and a host for green finance initiatives: developing new products, services, and establishing new practices to create green solutions.
7. Deliver WELL Standard for all buildings.
8. Invest in an array of sensors and edge computing to support wellness, deliver personalised experiences, and enable ease of life through work life blended service.
9. Our Nature Based Solutions and investments will create additional social rewards in parks, sport and recreation and create a high-quality setting to welcome a new workforce.
10. Open access for local community to green and social infrastructure with space for peaceful enjoyment, leisure and health benefits.
11. Establish a Gravity Charter to inspire young people, promote STEM learning, digital inclusion, equalities, create apprenticeships and employment pathways, as well as integrate the Armed Forces covenant to facilitate inclusion.
12. Establish bespoke employment and skills plans to assist the mobilisation of occupiers and to ensure local engagement and integration.
13. Embed opportunities throughout for learning, from sharing research findings, shadowing trials, through to incubating start-ups and enabling new forms of business or technological deployment.

Clean Energy @Gravity

14. Develop an energy strategy to provide national scale power infrastructure to enable high energy intensive industries including cyber infrastructure, advanced manufacturing, biosciences, gigafactories, digital, agri-tech and zero-emission transport.
15. Work with Ofgem, National Grid and E.ON to create greater competition, coordination and innovation across the campus and community power networks.
16. Establish smart grid infrastructure to provide flexible, and secure low-cost energy to meet the commercial, residential and leisure needs, and risk profiles of businesses at Gravity.
17. Leverage the geographic benefits of Hinkley Point C including energy supply, distribution, storage, workforce transfer, education and supply chains.
18. Shift away from fossil-fueled combustion technologies, maximising low carbon generation, energy storage and management on site.
19. Create an energy sharing system, such as an ectogridTM Good NeighbourTM where one organisation's waste energy is used by others on site: achieving maximum waste heat recovery for greatest efficiency. Invest in the recycling of heating and cooling from and in industrial processes to save carbon, reduce costs, and improve air quality.
20. Collaborate and co-design energy infrastructure to enable clean growth across industrial, residential and leisure partners and occupiers.
21. Instigate an ISO 50001 Energy Management Plan for the Campus with industrial decarbonisation and energy efficiency plans for occupancy, leveraging energy load shifting to maximise the available peak supply and give energy security across the site.
22. Provide intelligent digital controls to manage clean energy systems to enable flexibility in energy demand and pricing.
23. Provide site wide sustainable transport solutions including rapid charging and support for hydrogen powered vehicles, accessible to the community.
24. Use our Enterprise Zone Status to provide incubation facilities for innovative energy technologies.

Natural Resources @Gravity

25. Create a ‘Gateway’ to a natural environment super reserve through digital technology.
26. Invest in green economic recovery to benefit landscape enhancement, ecological recovery and greenhouse gas removal.
27. Minimise the negative environmental and carbon impacts associated with resource extraction, use and disposal through lifecycle analysis and circular economy thinking. Including establishing construction skills programme for reducing environmental impact through a construction environmental management plan.
28. Enable approaches to greenhouse gas removal technology through enterprise zone status, for example, providing incubator space for sequestration technology.
29. Create the environment to use both the abundance of water and energy assets to advance hyper-intensification of agriculture and agri-tech sector.
30. Work towards zero avoidable waste by 2030 across the Campus.
31. Maximise the use of water through the Gravity Water Management Strategy including water treatment and recycling.

Clean Transport @Gravity

32. De-carbonise transport, enabling shift to EV's and alternative fuels through investments into infrastructure that enable an interaction between transport needs and energy supply.
33. Strive to minimise transport impacts on the strategic and local road network.
34. Participate in research and development to offer a free port site, linked to a Free Port Zone enabled by digital infrastructure.
35. Establish multimodal transport infrastructure combining rail restoration, motorway to micro mobility and autonomous shuttles.
36. Create a micro mobility grid through green infrastructure creating routes and spaces.
37. Blend commuting and campus movement into single Movement as a Service deal (MaaS @Gravity) for occupancy based on blockchain transaction ledger. Discourage and phase out single mode travel using behavioral change and incentivisation mechanisms.
38. Enable the supply chain for zero carbon movement and logistics, creating scaled hydrogen and power supply through infrastructure investments or alternatives.
39. Provide 5G infrastructure, sensors and edge computing to enable fully autonomous movement within the smart campus.
40. Integrate facilities for a helipad / electric taxis and look into the future to consider the UK's first International drone port to connect UK Industrial Clusters to Europe.
41. Design corridor infrastructure to enable logistic autonomous movement and platooning.
42. Incubate zero emission transport and smart mobility SME's.
43. Design civil engineering solutions for future mobility requirements.
44. Enable working from home and localised working linked to the campus geared to reducing the overall need to travel through the Gravity Home Hub Model.

Digital Revolution @ Gravity

45. Establish a digital route map and masterplan to shape the digital clean growth journey@ Gravity.
46. Host a test bed location for research and development such as free port zone digital architecture and new housing products.
47. Ensure underlying digital infrastructure is future proofed to seamlessly accommodate the requirements of future connectivity technologies such as 5G and 6G, and future digital services.
48. Digitally twin and manage the Gravity Campus systems by a campus operations centre to support adaptive management and enable continual optimisation.
49. Create the open architecture for a Gravity Blockchain Ledger to enable campus transactions and accountability both in terms of building formation and operation of assets to evidence delivery on Clean Growth.
50. Drive out learning and skills development opportunities to inspire young people and enable communities to access opportunities by forming partnerships with local and regional educational institutions.

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