

Environmental Sustainability Plan 2023-25

Theme	Objective and Target Description	Where (and who will this apply)	How (Actions required)	Who/Lead (responsible person)	When (Target Date)	Status
Emissions - Energy	<p>Objective – achive net zero emissions across scope 1, 2 and 3.</p> <p>Targets:</p> <ul style="list-style-type: none"> • Reduce carbon emissions to meet net zero carbon emissions by 2040 across scopes 1, 2 and 3. • Interim target commitment to align with the Northern Ireland target, reducing carbon emissions by 48% by 2030 across Scope 1 and 2 emissions. • Further alignment will be unteraken to ensure the UK National target of 78% reduction in UK emissions by 2035. 	<p>Estates Directorate</p> <p>Procurement Department</p>	<p>Identify a range of energy programmes as required by the Carbon Management Plan Technical Group. e.g. Voltage Optimisation Programme, Sub-metering, PIR Installation, Insulation projects, CHP, Low Carbon Technologies. – Energy M&T</p> <p>Development of a bespoke net-zero carbon targets for QUB to cover scope 1, 2 and 3, carbon off-setting, climate change adaptation and associated costed action plan has taken place. They were created in partnership with appointed consultants (ARUP) in early 2023 following the completion of a Net Zero Engagement Campaign.</p> <p>Implementation and delivery of QUB Net Zero Strategy.</p>	<p>Head of Sustainability</p> <p>Energy and Carbon Manager</p>	<p>Ongoing</p> <p>Summer 2023 onwards</p>	<p>Number of energy efficiency projects on going:</p> <ul style="list-style-type: none"> • CHP units continue to operate efficiently at the Queen’s Elms Site, DKB/Ashby Site, Main Site and Health Sciences Campus; Recurrent annual savings yielded from these initiatives is in the region of £950k. • Additional minor works projects to the value of identified £160k identified and implemented. • Significant Geothermal project installed at new Riddel Hall Business School – Pioneer project for Geothermal in NI. • Dublin Road Accommodation will be ‘Passive House’. <p>Roll out of the Net Zero Strategy will occur after sign-off by Senate in June.</p>

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<p>Sustainability Engagement Programmes</p>	<p>Objective – deliver phased pilot lab sustainability programme across the university. Targets:</p> <ul style="list-style-type: none"> • 2021/22 (pilot phase) is 12 labs; • 2022/23 33% of all labs, • 2023/24 66% of all labs, • 2024/25 100% of all labs. <p>Objective – development of a new staff and student behaviour change programme to incentivise positive environmental behaviours.</p> <p>Targets:</p> <ul style="list-style-type: none"> • Implement a pilot sustainable reward scheme. • Development and pilot of Queen’s Sustainability Award Programme. <p>Objective – increase carbon literacy levels across the University.</p> <ul style="list-style-type: none"> • Phase One - 2021/22 - delivery to 200 students. • Phase two – 2022/23 - 400. • Phase three – 2023/24 - 800. <p>Objective – continue to deliver the Sustainability Change Makers Programme (Degree Plus Accredited).</p> <ul style="list-style-type: none"> • Integrate the programme/workshops within existing structures. <p>Objective – Provide funding source for students and staff to delivery their own sustainability projects on campus</p> <ul style="list-style-type: none"> • Fund £20k of projects over 12 months between September 2022 and July 2023 <p>Objective – Integrate sustainability activities within existing courses</p>	<p>Estates Directorate</p>	<p>Implement Change Management initiatives.</p> <p>Review current labs, identify new labs, launch in September annually.</p> <p>Review existing external sustainability engagement programmes, identify key programme that will appeal to staff/students and launch in Autumn 2023.</p> <p>Develop resources to aid Schools/Directorates in creating their own bespoke baseline emissions and action plan. Liase with key schools to ensure recruitment for pilot is achieved and promote to key schools/directorates.</p> <p>Deliver training in each Faculty via Carbon Literacy Champions – NBE (EPS) Management School (AHSS), School of Biological Sciences, School of Medicine and Dentistry (MHLS) as well as central course for staff and students outside this cohort.</p> <p>Review current programme, engage with key facilitators, recruit students and discuss implementing the programme in existing structures with facilitators.</p> <p>Update Green Fund resources, organise communications and launch in September annually.</p> <p>Liaise with key schools to ensure engagement workshops have been planned for 2022/23 academic year.</p>	<p>Head of Sustainability</p> <p>Environmental Manager</p> <p>Project Support Officer (Sustainability)</p> <p>Environmental Graduate Intern</p>	<p>Ongoing</p>	<p>In 2021/22 12 Labs received Bronze LEAF Accreditation. A review to determine eligible labs was completed in 2022.</p> <p>In November 2022, the Faculty of Medicine, Health and Life Sciences committed to all their eligible labs becoming LEAF Accredited by 2025. A total of 31 labs received accreditation in 2023. A number of events and workshops took place during 2022/23: Intro, Lab Lunch Talk, Procurement Workshop, Audit Workshop and Awards Coffee Morning. Recruitment for 2023/24 is ongoing.</p> <p>Review of programmes was completed in 2022. Creation of a summary report has been created for review by the Change Management Committee who have agreed on provider.</p> <p>New pilot Sustainability Engagement Tool will be launched in Winter 2023. Pilot will be progressed with Accommodation (Elms Village) and key staff departments.</p> <p>Initial research into the creation of a Queen’s Sustainability Award Accreditation has taken place, with a report following for review of the Change Management Committee during Autumn 2023. Selection of three pilot directorates will take place in summer 2023.</p> <p>Ongoing discussions are taking place with relevant academic staff and dates will be agreed with facilitators (Keep Northern Ireland Beautiful). Academics from a range of disciplines are involved – School of Biological Sciences, School of Natural and Built Environment, School of Dentistry, School of Medicine, School of Management and School of Aerospace and Engineering.</p> <p><u>Figures:</u> 2021/22: 305 students, 35 staff 2022/23: 423 students, 112 staff.</p> <p>Master Your Environmental Leadership Program was hosted in collaboration with Graduate School during 2021/22. 18 students participated and will qualify for Degree Plus. The programme was re-created and named the ‘Sustainability Change Makers Programme’ and ran over the 22 and 29 March 2023. A total of 18 students took part. Discussions with other programme facilitators will take place over the 2023 summer to determine if workshops can be incorporated into existing programmes.</p> <p>University Green Fund will be re-launched for 2022/23 after it was put on hold for Covid. Launch took place in September 2022, money was allocated in November 2022 with 19 projects funded in 2022/23, bringing it to a total of 61 projects. Relaunch for 2023/24 will take place in September 2023.</p> <p>Engagement activities have taken place with the following courses over 2022/23:</p> <ul style="list-style-type: none"> • MSc Construction Management (100 Students) • Future Ready Skills for Leaders Programme (50 students)
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<p>Sustainable Design and Construction</p>	<p>Objective – Embed net-zero carbon strategies across the University estate and begin to track progress.</p> <p>Targets:</p> <ul style="list-style-type: none"> • Target Passive House certification for all new buildings; • Target EnerPHit certification for all refurbishment projects > £1m; • Begin to benchmark all projects against carbon metrics for best practice. • Release Net-Zero Design Guide for use. <p>Objective - Improve Sustainable Design and Construction of New Builds and Refurbishments.</p> <p>Targets:</p> <ul style="list-style-type: none"> • Achieve BREEAM Excellent for New Builds >£1,000,000-ongoing • Achieve BREEAM Very Good for Refurbishment – >£1,000,000 <p>Objective - Embed net-zero carbon principles and requirements across all our design and construction specifications in line with forthcoming net-zero strategy requirements – September 2023.</p>	<p>Estates Directorate</p>	<p>Coordinate development of a net-zero design guide, collaborate with various Estates departments to understand challenges, and implement the new standard.</p> <p>Review and update procurement documentation to ensure project teams fulfil requirements.</p> <p>Ensure Whole Life Carbon assessment & energy modelling is undertaken for all future projects.</p> <p>Use applicable BREEAM criteria for new builds and refurbishment projects from early design stage and integrate within design criteria, reporting progress at each RIBA stage.</p> <p>Review the Sustainable Design Development Brief and develop an alternative appropriate process.</p> <p>Recruit and appoint an Estates Manager Sustainable Construction to lead embedding of sustainable design and construction principles across University projects.</p> <p>Review and update of all applicable specifications integrating appropriate sustainable design standards.</p> <p>Delivery of costed net-zero action plan - including development of sustainable design principles and standards.</p>	<p>Estates Manager (Sustainable Construction)</p> <p>Head of Sustainability</p> <p>Head of Estates Planning</p>	<p>Ongoing</p> <p>March 2023</p> <p>Ongoing</p> <p>September 2023</p> <p>September 2022</p> <p>Nov – Sept 2023 Dec 2022 onward</p>	<p>The Net-Zero Design Guide is in development however significant collaboration has taken place within the Estates Directorate in order to propose a workable document.</p> <p>Identification of 'pathway projects' has taken place and development is imminent in 2023.</p> <p>The first Passive House certified student accommodation block in NI has been tendered by the University.</p> <p>7 BREEAM Excellent 6 BREEAM Very Good New School of Management is set to achieve BREEAM Excellent.</p> <p>Sustainability design and construction standards will be reviewed as part of the development of the next stage of the University carbon reduction strategy – including exploration of other standards – Passivhaus / SKA etc.</p> <p>Estates Manager (Sustainable Construction) has been appointed and commenced in December 2022 (Nathan Campbell). Research and review into a design specification is ongoing.</p>
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<p>Waste Management</p>	<p>Objective - Increase percentage of waste recycled and reduce volumes of waste generated – ongoing. Target:</p> <ul style="list-style-type: none"> Maintain figure of over 80% of waste diverted from landfill from July 2021 onwards. 	<p>Estates Directorate</p>	<p>Improve use of existing recycling facilities for staff and students (June 2024):</p> <ul style="list-style-type: none"> Extend waste streams which can be recycled. This will include extending the roll out of Food Waste, Ban the Bin. Review and update bin labels <p>Develop waste/resource strategy/circular economy strategy - May 2024</p> <p>Completion of waste audit/review across the Estate focus on high impact areas (integrate with student projects) – March 2024</p> <p>Review consumables and align with waste audit to determine opportunities for eliminating/ reducing waste streams (including Single use Plastics and avoidable packaging) - March 2024</p> <p>Review and improve recycling bin provision and information in key areas</p> <ul style="list-style-type: none"> Roll out of the Queen’s reusable ‘2 Go Cup’ Lattee Levy 	<p>Estates Manager (Environmental)</p> <p>Assistant Estates Manager (Environmental)</p> <p>Estates Manager (Environmental)</p> <p>Assistant Estates Manager (Environmental)</p> <p>Head of Campus Food and Drink</p>	<p>Ongoing</p>	<p>Current recycling and recovery rate is 93.79% for Municipal General Waste i.e. 93.79% diverted from landfill.</p> <p>Reviews/actions undertaken to increase recycling/decrease waste:</p> <ul style="list-style-type: none"> Furniture donations to number of Charities/Schools/Clubs –Oxfam, Habitat for Humanity and use of WARP IT (ongoing). Staff/ student working group established to review use of single-use plastics and identify opportunities for reduce single-use plastic across the University. Identify and action new waste streams - review external recycling provision – maximise cardboard recycling (July 2024). Improve recycling signage of internal bins (September 2024). Future work on signage will include engagement with students and staff. Working with staff and students to undertake waste projects with the aim to establish recommendations and actions that minimise waste production and bin contamination (Elms Accommodation – December 2023). Continue to roll out LEAF to ensure waste is being minimised where possible from labs. <p>Waste Management Contract tendered and awarded - focus on landfill diversion and contributing to circular economy.</p>
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<p>Travel and Transport</p>	<p>Objective – Increase uptake of Sustainable Travel across the University Targets:</p> <ul style="list-style-type: none"> • Travel to Work Survey took place in October 2022 allowing up to date targets to be established. • Creation of travel strategy for Summer 2023. • Maintain Cycle Friendly Employer Accreditation Gold – on going – 2023/24 <p>Objective - Increase cycling provision across campus via education, engagement and enhanced infrastructure. Targets:</p> <ul style="list-style-type: none"> • Engage with external providers to host 8 events every academic year. • Provide additional cycling parking for a further 100 bikes across the campus by June 2023; 50 by 2024. • 30 bikes leased to students by December via hub; 55 recycled bikes (increase of 20% on 2022 figure) sold by June 2023, 480 services (increase of 20% on 2022 figure) by July 2023 <p>Objective - Engage with Translink and external stakeholders including Belfast City Council, Ulster University and Belfast Metropolitan College, to make public transport a more attractive option for staff and students travelling to the University.</p> <p>Objective – Increase availability of EV Charging</p> <ul style="list-style-type: none"> • Install 3 additional EV Charging points across the campus by December 2023 • 4 additional EV Charging points by June 2024 	<p>Estates Directorate</p>	<p>Implement the continual implement plan attached to the University Trave Plan Appointment of consultants to support development of a Travel to Work Survey and travel strategy. Completion of Staff and Student Travel to work surveys - October 2022 Undertake feasibility study to determine cost and options for moving current fleet (25 vehicles to EV) – October 2022 Liase with internal communications to promote the survey and strategy. Install at DKB,MBC and refresh at Admin building – December 2022</p> <p>Work with key stakeholders to determine potential of a Belfast working group around Sustainable travel -November 2022 Continue to progress the Open Botanic Project – e.g. Round table with key MLA's and councillors via Public Engagement – September 2022 (dependent on NI Assembly returning)</p> <p>3 additional locations identified for EV's – funding secured</p>	<p>Estates Manager (Environmental) Assistant Estates Manager (Transport)</p>	<p>2020/21</p>	<p>2018 demonstrated a reduction in staff dependence on single occupancy car travel from 33.7% (2015) to 30.6% and a reduction from 16.4% (2015) to 13.4% in student travel.</p> <p>2020 Travel Survey undertaken to inform next stage of the Travel Plan: Reduce single occupancy car journeys by staff and students in accordance with Travel plan targets. 5% reduction in staff travelling to the University by single-occupancy car journey by 2020/21.5% reduction in students travelling to the University by single-occupancy car journey by 2020/21 Development of current plan under review considering COVID and significant change of working / travel patterns, plus the universities Net Zero aspirations.</p> <p>Travel to Work Survey was completed in October 2022, with work ongoing in regard to Travel Plan Strategy. Launch of new Travel Plan will occur in June 2023.</p> <p>Accreditation to Cycle Friendly Employer Accreditation – Gold Standard - first employer in the UK to achieve the standard Cycle + (Cycle to Work Scheme) in 2019. Awarded for 2021/22.</p> <p>Active travel hub on campus, in partnership with Big Loop Bikes, was established and launched in September of 2021 – 30 bikes leased, 45 recycled bikes sold, 400 bikes serviced. 2022/23 - 30 bikes leased, 73 recycled bikes sold, 166 bikes serviced.</p> <p>Range of events have taken place during Bike Week – 1xDr Bike Session, Social Cycle, Cycle Breakfast, Cycle Security Marking, talk with Cycling UK, Cycle + and local academic. Further events included Big Loop Bike Hub presenting at multiple Welcome events, including Fresher's Fair.</p> <p>In 2020/21 several cycle parking spaces were put in place - 60 in MBC, 30 in Ashby, 34 in the main site. 2021/22 - 20 spaces have been incorporated into the main site; 60 spaces in One Elmwood; 40 created in School of Management.</p> <p>Range of public transport incentives and promotions by Translink – monthly attendance on site – ongoing. Key awareness events (Bike to Work week, Bus and Train Week) are promoted – range of events and online campaigns took place in June 2023. Open Botanic project – working with School of Natural Built Environment and Public Engagement - proposal for a cycle lane on Botanic Ave. developed. Meeting with Minister to raise profile of the project. Now included within Bolder Vision for Belfast. 'Open Botanic Day' took place in November 2022 and due to take place in November 2023.</p> <p>2023 EV Charging Points: Two EV charging points installed in School of Management; 1 EV charging point in MBC; 1 EV charging point in Ashby.</p>
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<p>Biodiversity</p>	<p>Objective - Increase awareness of biodiversity amongst staff, students and the local community. Target:</p> <ul style="list-style-type: none"> A minimum of 4 biodiversity events for staff and students to participate in every academic year. <p>Objective – Maintain Green Flag for the university main site. Renewal – February/Audit in either June or November.</p> <p>Objective – Enhance the biodiversity found within Queen’s campus. Target:</p> <ul style="list-style-type: none"> Two new biodiversity opportunities identified and implemented each academic year. <p>Objective – Enhance Pollinators and native species across campus. Targets:</p> <ul style="list-style-type: none"> Maintain and uphold commitment to All Ireland Pollinator Plan - ongoing Plant native trees, hedging and plants (mainimum of 20 native trees each year, and 30 linear metres of wildlife hedging). 	<p>Estates Directorate</p>	<p>Identify opportunities for enabling staff & students to participate in biodiversity enhancement projects – 4 new opportunities every academic year.</p> <p>Renew Green Flag application in February</p> <p>Liase with the Gardening Team and Students’ Union to establish key opportunities and involvement.</p> <p>Identify tree planting and pollinator opportunities throughout the campus.</p>	<p>Head of Sustainability</p> <p>Estates Manager (Environmental)</p> <p>Head Gardener</p> <p>Project Support Officer (Sustainability)</p> <p>Environmental Graduate Intern</p>	<p>Ongoing</p>	<p>A range of biodiversity hotspots have been created across the Estate as part of the wider Nurture and Grow programme - Lennoxvale Tree Nursery, Pharmacy Garden, Elms Village Allotment Garden, DKB Quad. Queen’s university Belfast was a winner within the 2020 UK and Ireland Green Gown Awards.</p> <p>The formation of our next biodiversity hotspot includes the creation of a wildlife meadow at the Ashby Hill. This was completed in May 2023.</p> <p>A range of yearly biodiversity events and new initiatives have/will take place during the 2022/23 academic year:</p> <ul style="list-style-type: none"> Community clean-ups – November 2022 (30ppl) and March 2023 (50ppl) Elms Allotment Workshops October 2022 and May 2023 (10ppl) Lennoxvale Tree Nursery – sapling removal and planting (15 and 16 November 2022 – 60ppl) <p>Future events in 2023/24 includes bulb planting and surveying; and the usual litterpicks/Allotment Workshops.</p> <p>Green Flag and Green Heritage Award retained for the Lanyon Site for 2021/22 (Benchmark National Standard for public green spaces). Application submitted for 2022/23.</p> <p>Hedgehog surveying will commence in Summer 2023.</p> <p>Partners in the Million Trees for Belfast Initiative: 2022/23: 500 trees planted in Malone Playing Fields.</p> <p>No Mow areas - set aside as part of commitment to Pollinator Plan - Ashby Hill (Chlorine Gardens), DKB Quad and Riddel Hall. Three new areas: MBC and two areas in Elms Village.</p> <p>Biodiversity Action Plan created for spring 2024.</p> <p>2020/21 - 21 trees planted across the campus; >80 Linear metres hedge and >320 plants placed within Riddel Hall.</p> <p>2021/22 - 41 trees planted across campus; >30 linear metres hedge planted; 50 plants.</p> <p>2022/23 – >500 trees planted across campaus (Malone Playing Fields); >30 linear metres (Riddel Hall School of Management)</p>
<p>Water and discharges</p>	<p>Objective - Increase efficiency of water use via the use of borewells, rainwater harvesting technologies, monitoring and other water efficient technologies.</p> <p>Objective – Fulfil legal requirements:</p> <ul style="list-style-type: none"> Meet abstraction licence requirements for borewells at each location (as per licence). Meet water quality standards set at by drinking water inspectorate at each borewell location - ongoing 	<p>Estates Directorate</p>	<p>Ensure necessary controls and monitoring are in place to ensure compliance.</p> <p>Monthly monitoring - borewell usage at each location - ongoing</p> <p>Monthly monitoring of water quality to comply with DWI requirements – ongoing as stipulated in licence</p> <p>Completion of ongoing program – Bund improvements and maintenance</p>	<p>Estates Manager (Environmental)</p> <p>Estates Manager Maintenance</p> <p>Estates Minor Works</p>	<p>Ongoing</p>	<p>Borewells at several sites across campus – David Kerr Building, Elms Accommodation, Malone Playing Fields and Medical Biology Centre – completed.</p> <p>Implementation of flow control devices, water metering and water efficient WCs and taps.</p> <p>Pilot meter scheme with NI Water to minimise water leaks from source – due for completion December 2023.</p> <p>Ongoing monitoring to comply with licencing requirements</p> <p>Ashby/DKB bund replacement - completed</p> <p>Program ongoing to update tanks and replace with gas where appropriate (under review in light of Net Zero commitment)</p>

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	<ul style="list-style-type: none"> Prevent pollution to local waterways – Compliance with Control of Pollution (Oil Storage) Regulations (Northern Ireland) 2010 Comply with effluent consents as stipulated on licence requirements <p>Delivery of bund improvement/ gas conversion program at key locations</p> <ul style="list-style-type: none"> Review all existing bunds and tanks by 30 September 2021 Undertake improvements – by November 2022 					Review and update of bunds completed.
Community Involvement	<p>Objective - Increase engagement and involvement of local residents with sustainability programmes, initiatives and events within Queen's.</p> <p>Target:</p> <ul style="list-style-type: none"> Complete 3 community events. 	Estates Directorate	Identify opportunities to engage with the local community with the Grounds and Garden Team, Community Engagement and Handy Helpers (SU).	<p>Estates Manager (Environmental)</p> <p>Head Gardener</p> <p>Project Support Officer (Sustainability)</p> <p>Environmental Graduate Intern</p>	Ongoing	<p>Continuing to work with San Souci Residential Association via the Lennoxvale Tree Nursery and then by assisting them with their Malone Road Trees Project and Elms Village Sapling Planting event.</p> <p>Community clean-ups – November and March.</p> <p>Participants in the Belfast Million Trees program.</p> <p>Alley way transformation project - via Handy Helpers program.</p> <p>For 2023/2024, creation of a community mural on Botanic Avenue is currently being planned.</p>
Sustainable Procurement	<p>Reduce emissions associated with Procurement</p> <p>Targets:</p> <ul style="list-style-type: none"> Establishment of a baseline for procurement related emissions by July 2023. <p>Ensure Supply Chain Awareness of expected Sustainability standards</p> <p>Targets:</p> <ul style="list-style-type: none"> Inclusion of Supply Chain Code of Conduct within all contract requirements - ongoing 	Procurement Department Estates Directorate	<p>Appointment of consultants to support development of bespoke net-zero carbon targets for QUB to cover scope 1, 2 and 3, carbon off-setting, climate change adaptation and associated costed action plan.</p> <p>Review and report on data available to the University to baseline scope 3 inventory – October 2022. This will include staff/student travel data.</p> <p>Creation of a supply chain stakeholder map for scope 3 hotspots that will be included in Queen's Carbon Reduction Plan – November 2022.</p> <p>Complete a review of and report on the most impactful actions currently being undertaken on Scope 3 by other organisations in the UK – November 2022.</p> <p>Creation of a costed action plan including identifying supply chain hotspots and actions to support supply chain to reduce emissions – March 2023.</p> <p>Development of action plan to support delivery of the Sustainable Food Policy – September 2022.</p>	<p>Head of Sustainability Estates Manager (Energy) Senior Procurement Manager (Sustainable) Head of Campus Food and Drink</p>	Ongoing	<p>Suppliers to the University are being directed to register with and utilise NETpositive (or equivalent), a free tool that will help suppliers to create a simple sustainability action plan for their business. Ongoing review of progress against action plans will be undertaken at contract management meetings.</p> <p>A Sustainable Food Policy and Sustainable Print Policy have been established - includes key sustainability procurement actions – report to senior management.</p> <p>Plastic Working Group has been established and a key theme which is being addressed within the working group is procurement.</p> <p>Procurement Department has drawn together various strands of responsible procurement into an overarching Supply Chain Code of Conduct which is applicable to all suppliers and links directly to the United Nations Sustainable Development Goals which sets out a blueprint to achieve a better and more sustainable future for all – published online and supplied to all significant suppliers.</p> <p>Work by consultants (ARUP) and the university has been completed, with the establishment of a baseline and action plan for our Scope 3 data published in June 2023.</p>

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