



# **MRC Environmental Sustainability Programme 'MRC ESP'/UKRI Concordat**

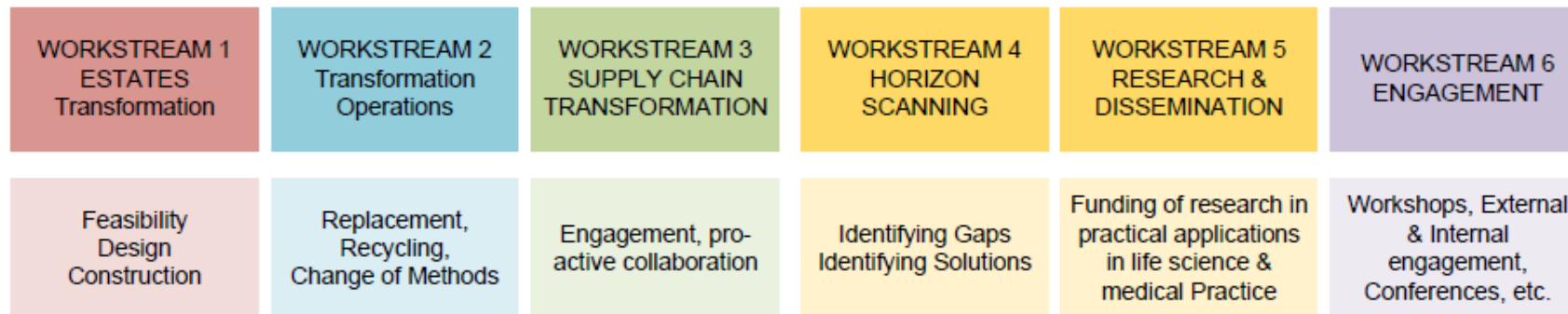
Elena Dimitrova, 12<sup>th</sup> October 2022



# MRC Estates

	CURRENT FACILITIES	FUTURE PLANS
MRC HARWELL	<ul style="list-style-type: none"> <li>• Building 383 (main building): 6,707m<sup>2</sup></li> <li>• Building 371: 301m<sup>2</sup></li> <li>• Building 524: 562m<sup>2</sup></li> <li>• Mary Lyon Centre: 4,500m<sup>2</sup></li> <li>• Porton Down, Wiltshire: 2,453m<sup>2</sup></li> </ul>	<ul style="list-style-type: none"> <li>• The MGU closed at the end of April 2022</li> <li>• The lab and office space in Building 383 that they vacated is due to be made available for use under short and medium term lease</li> <li>• The new experimental facility to be co-located with MLC is the subject of a detailed design project</li> <li>• The contractors under the design and build arrangements are engaged in preparatory works on the underlying infrastructure at present.</li> </ul>
LONDON INSTITUTE OF MEDICAL SCIENCES (LMS)	<ul style="list-style-type: none"> <li>• In process of construction, due completion Summer 2022</li> <li>• Current buildings (not under MRC ownership): Burlington Danes, Mansfield, ICTEM, Clinical Research Building and Common Wealth Building</li> <li>• Current total area: 6,311m<sup>2</sup></li> <li>• 152 people on site</li> </ul>	<ul style="list-style-type: none"> <li>• The new LMS building was delayed but the floors 2-6 of the new building are being occupied at present (the move having started 26/09/22) as part of the Transition project</li> <li>• 1600m<sup>2</sup>; Highly flexible and modern imaging facility</li> <li>• It is anticipated the building will be used for high-end imaging work, however plans may change within the next five years</li> </ul>
LABORATORY OF MOLECULAR BIOLOGY (LMB)	<ul style="list-style-type: none"> <li>• Main facility: 32,772m<sup>2</sup>, 3 main floors</li> <li>• Energy Centre attached</li> <li>• Ares Building: 12,140m<sup>2</sup></li> <li>• MRS Building: 604m<sup>2</sup></li> <li>• 610 people on site</li> </ul>	<ul style="list-style-type: none"> <li>• New Division of Artificial Biology: An imaging facility and attached computer and Data Centre</li> <li>• 4000m<sup>2</sup></li> <li>• The proposed new extension to LMB is still at the design stage and funding is yet to be confirmed</li> </ul>

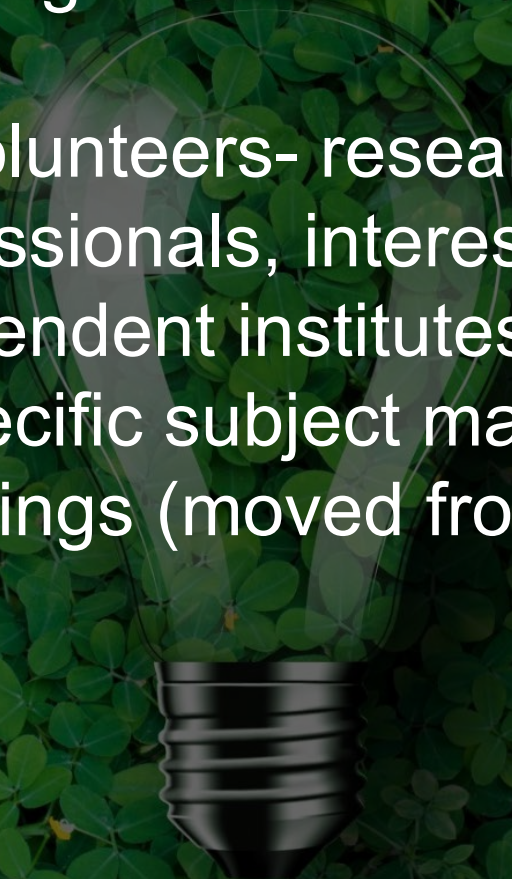
# PROGRAMME / GOVERNANCE





# MRC Green group:

- Established in August 2021
- Members are volunteers- researchers, estates and laboratory professionals, interested parties from within MRC and independent institutes.
- Focus on a specific subject matters
- Quarterly meetings (moved from monthly)
- 4 workstreams
  - ✓ Estates
  - ✓ Research
  - ✓ Laboratories
  - ✓ Engagement





# MRC ACTIVITIES



# Estates

- Feasibility study (*Appointed Buro Happold*)- to establish a transformation programme for our estate, informing a **Business Case** to UKRI/BEIS! Due to be completed in March 2023.
- MRC and UKRI Carbon Reduction funding allocated (total allocation for **FY 2022/23 - £1.2m**) - in measures that reduce the environmental impact of our facilities, including E-chargers for cars, solar panels, submetering etc.
- Data validation – identifying gaps and closing these as part of the wider **UKRI ESP Delivery Priorities**
- Move to **GREEN Energy Tariff**.

# Lab Operations

- Installation of automatic sash closers for fume hoods at LMB
- Replacement of mercury bulbs for microscopes with LED lighting
- Replacement of single-use plastic pipettes with glass as a pilot programme at LMS
- Freezers of an age of 12 years and older were replaced
- *ALL MRC INSTITUTES have now signed up for [Laboratory Efficiency Assessment Framework membership](#) (LEAF)– gives us an initial framework to improve our lab operations and make them more sustainable.*

# TO DO 2022/23



Establish ways of accurately measuring our waste (including types)

Develop targeted approach to reducing our waste.



Installation of additional meters (power, gas, water)



Complete condition survey and feasibility study on transformation of the estate



# MRC MORE ACTIVITIES



# TO DO 2022/23 – continued...



Installation of Electric car chargers at our Institutes (LMB/ Harwell)



Continuation with the replacement of inefficient equipment  
Continuation with the drive to move to -70C freezer temperature in our laboratories / facilities



Continue installation of automatic sash closers for fume hoods and microbiological safety cabinets in our institutes



Continuation of the work to move to LED lighting in our Institutes

**Continuous improvement programmes established to reduce consumption of power, water and gas. Pilot projects to complete and report back – lessons learned.**

# Engagement

- Workshop at Harwell in September 2022 (laboratory focused)
- An annual conference for the MRC community (estate, laboratory operations, green groups) including our HEI Units and Institutes.
- The first Environmental Sustainability seminar - 15<sup>th</sup> July, focusing on *Achieving Net Zero in the Life Sciences Estate*
- *Second* Environmental Sustainability seminar – planned to take place in February 2023 – H&S/Business continuation and links with the Environmental sustainability agenda!
- Full communication strategy to be developed over the next 2-3 months.



# Horizon scanning and research in practical applications

- Research call (£1 million funding opportunity) for outline proposals on this subject matter (closed 1st March 2022)
- 23 really interesting and exciting proposals received from across the UK and overseas – all with direct link to the challenge. Applications from Universities, MRC Units and NHS. 12 of the proposals were invited for the full proposal stage.
- **6 Approved proposals** will undertake a 12-month test of their idea and may receive further funding if it proves to be viable (subject to funding).
- Landscape review proposed to identify research needed to bring life science activities to NetZero and/or reduce life science impact on environment to inform future call

# Supply Chain

- Decision to approach this via the SBTi method ([Science Based Targets initiative](#)).
- We are developing a communication to all of our suppliers to inform them of our ambition and invite them to work with us to achieve this
- Working with NIHR and NHS England to work with those suppliers, who we share to have more impact.
- Inviting Supplier to Environmental sustainability events given them an opportunity to showcase their products and further to generate effective discussions around best/worst practices and ways of improvement.



# AMBITION



MRC announced its environmental sustainability programme to achieve net zero by 2040, as part of the **UKRI sustainability strategy**, with a 50% reduction by 2030.





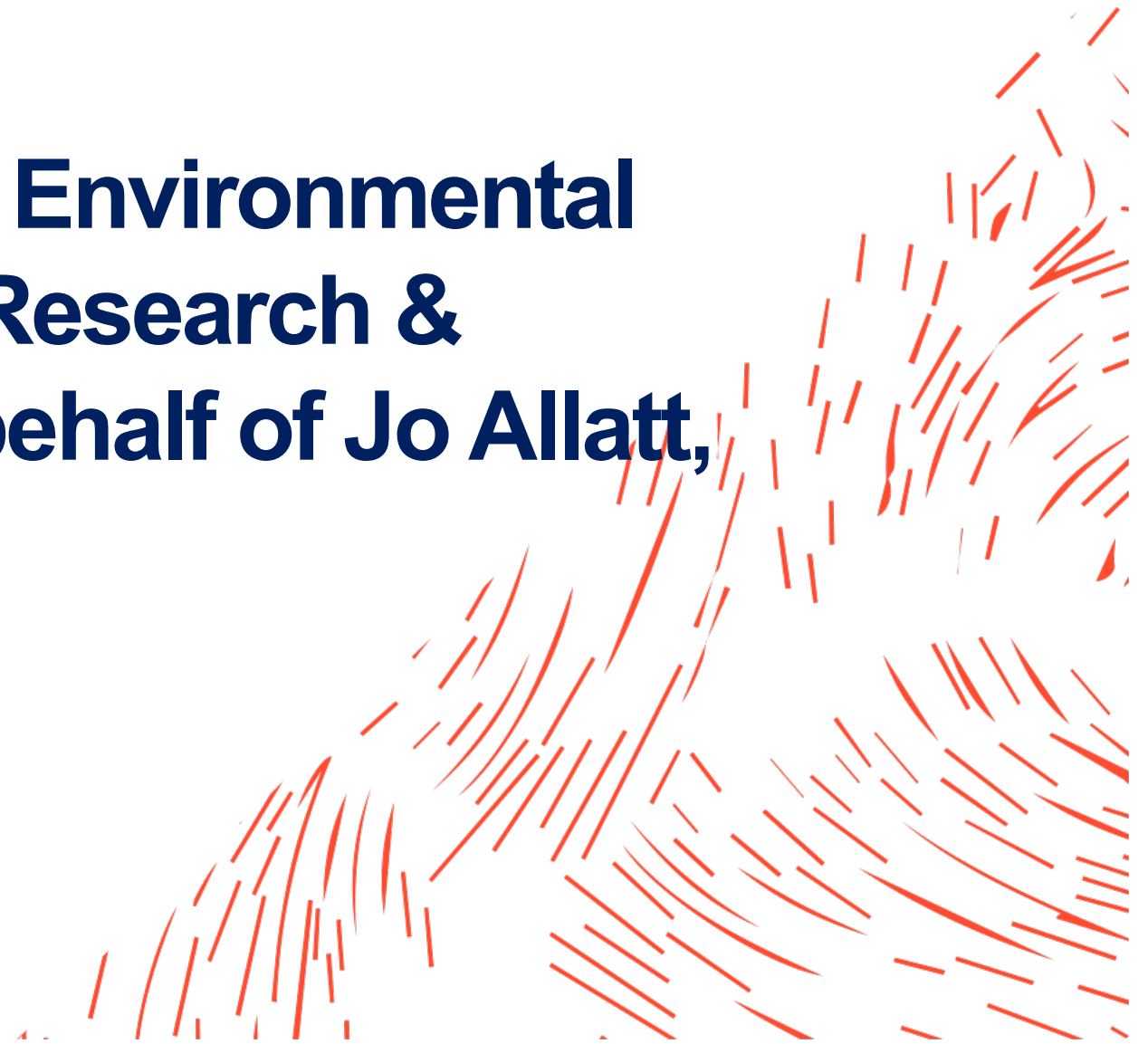


UK Research  
and Innovation

# **UKRI ESP/ Embedding Environmental Sustainability into the Research & Innovation sector (on behalf of Jo Allatt, NERC/UKRI)**



UK Research  
and Innovation



# UKRI ES Programme - Delivery Timescale

	FY 2022/23				FY 2023/24				FY 2024/25			
POLICIES	UKRI TRAVEL POLICY											
		UKRI ABATEMENT POLICY										
			POLICY ON PROCUREMENT ES PRINCIPLES									
			POLICY ON ES PRINCIPLES IN INVESTMENT DECISIONS									
ESTATES/ INFRA	FEASIBILITY STUDIES											
			TRANSFORMATION PLANS									
			DECARBONISATION ACTIVITIES									
DATA		CARBON TRACKER / CARBON CONTROL										
		DATA VALIDATION										
CONCOR- DAT	Consultation / Negotiation with HEI and Indep. Institutes											
					FORMALISATION							
								IMPLEMENTATION				
BUSINESS CASE			DRAFT BC									
						IAWG						
							REVISION					
								ExCo				
							FAMILIARISATION - GOVERNMENT					
										INCORP. SR REQUEST/ PIC		

# Purpose of this work

- **UKRI will lead a collaboration between HEIs, research organisations and other funders to jointly achieve positive environmental change in the UK research and innovation (R&I) system.**
- UKRI will bring together stakeholders from across the sector to adopt a common environmental sustainability ambition and a joint plan for action that will commit the parties to the plan to take action to progressively embed environmental sustainability into all research and innovation practices.
- The parties to the joint plan for action will sign up to a set of principles as part of a concordat that all parties can follow. The concordat will include a collective approach to data reporting so that the environmental impact of the whole R&I sector's activities can be shared and understood.
- The parties to the joint plan for action will scope and measure the scale of the sector's carbon emissions and will agree who 'owns' and is responsible for the carbon impact of what we fund and use this as a model for the sector.





# Concordat Framework

## Strategic Leadership and oversight

- Signalling good practice
- Sharing good practice
- Transparency
- Sector-wide consensus and combined impact
- Changes to key policies to match ambitions/expectations

## Data & Targets

- Agreed reporting & scopes
- Targets/pathways
- Use of data & targets
- Quantifying cost/risk
- Carbon footprint modelling
- Capturing more than carbon data

↕  
Interlinked

## Trusted Standards

- Common definitions
- Sustainable Labs (e.g. LEAF)
- Calculating whole life costing/life cycles
- Linking to UN-SDGs
- Benchmarking
- Credible offsetting approach

## Partnerships

- New and existing partnerships
- Place-based approaches
- Councils & wider civil society
- Business partnerships
- Partnership funding
- Links to behaviour change

## Net Zero +

- Bridging mitigation and adaptation – resilience and future proofing
- Biodiversity/nature solutions
- Local/ regional/ national
- R&I sector-wide culture change

## Business & Academic Travel

- Business travel plans, guidance and policy
- Travel for research
- Dissemination of research outputs
- Student and staff travel

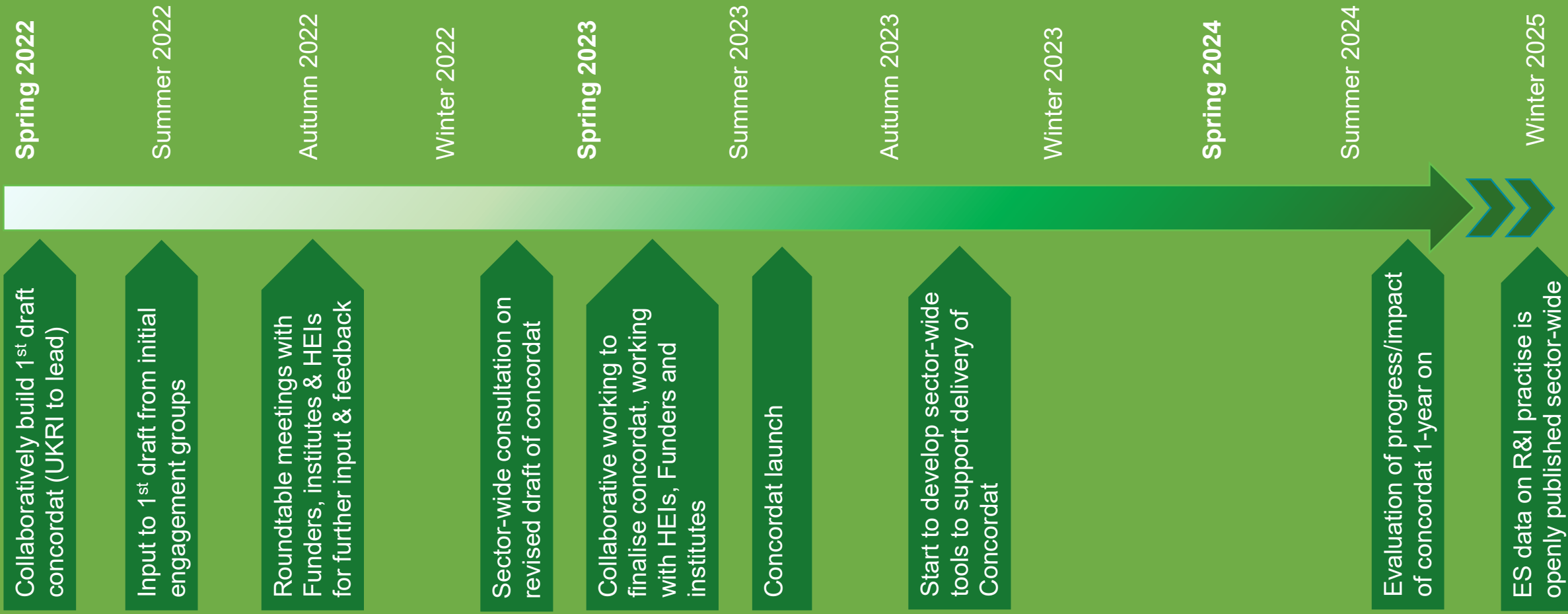
## Supply Chains & Procurement

- Supply chain emissions
- Influencing the supply chain
- Circular economy (incl end of life and new vs re-use)

## Infrastructure

- Energy efficiency of research infrastructure (buildings, structures and high energy infrastructure including equipment and systems e.g. HPC)

# Timeline





Medical  
Research  
Council

# Thank you



Medical Research Council



@The\_MRC



Medical Research Council