



Policy-led Analysis - Enhanced Conditionality

Land Use Transformations

Quantitative Story Telling Phase 1

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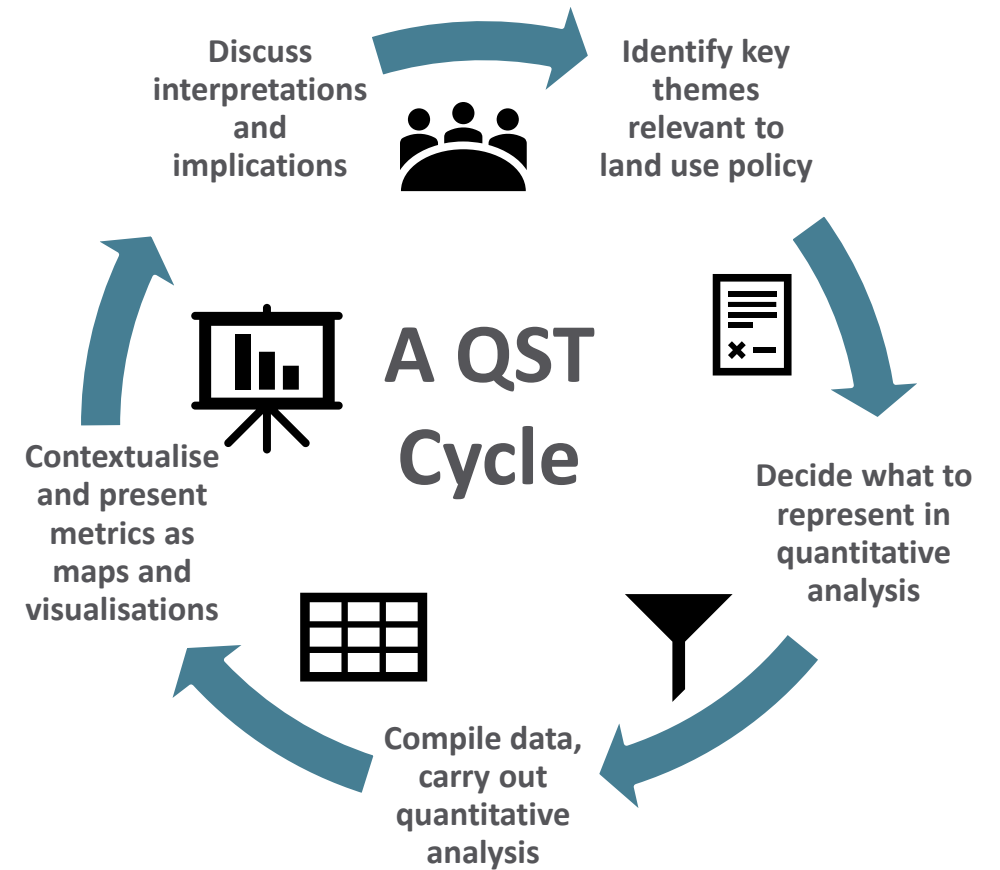
Presentation to Scottish Government, 29 March 2023, Online.



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Quantitative Story Telling

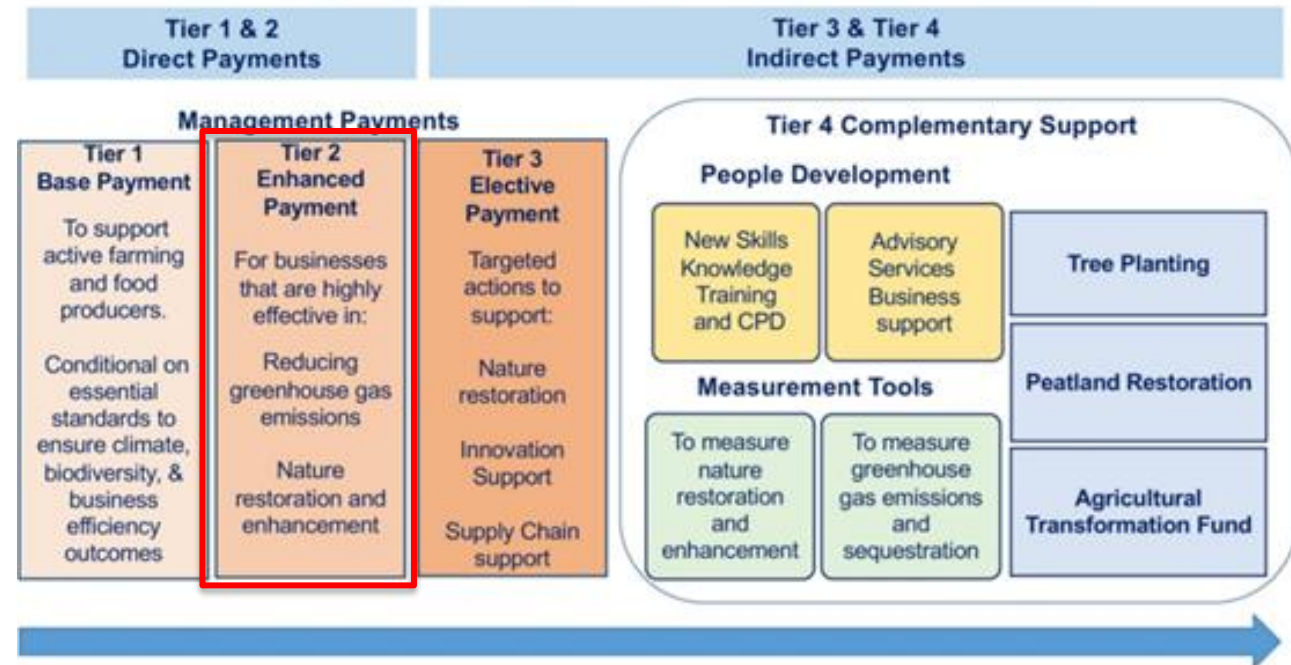
- Process for defining, undertaking and interpreting research for policy.
- Part of SRP agreed to be policy-led
 - Co-construction
 - Co-interpretation
 - Cycles of analysis



Choosing the topic

- **Enhanced Conditionality** as a (the?) core mechanism for future agriculture support delivering the environmental objectives in post-2025 Vision.
- Start from the proposed measures
 - Review of measures proposed
 - Soils, Biodiversity, Waters
 - EC background, two workshops each – screening matrix, synthesis report.
 - Workshop with SG staff – Feb 2023.

Vision of Agriculture Support Package Beyond 2025



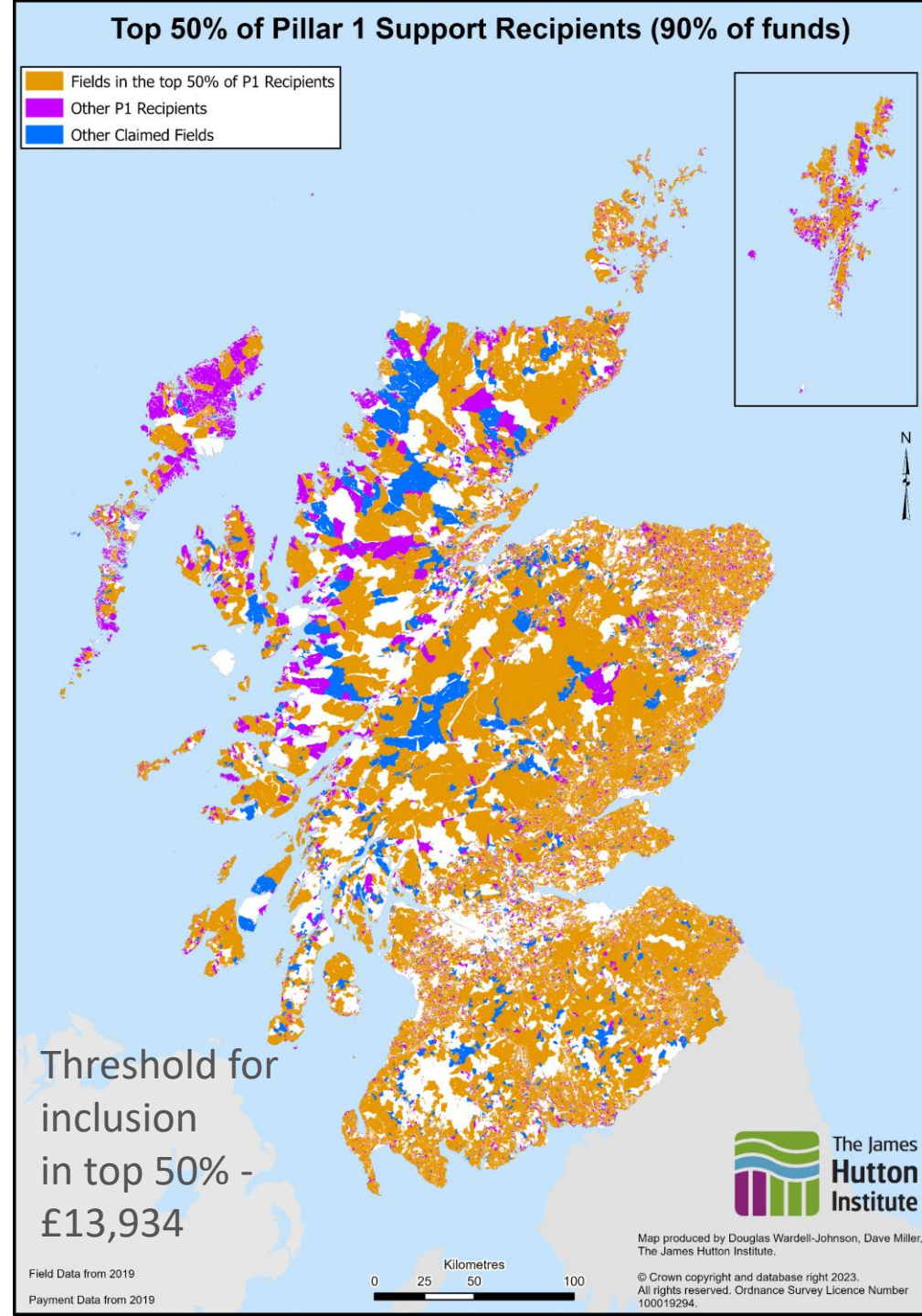
Enhanced Conditionality – Measures Screening

- Scope builds out
 - Linking with insights from analysis within EARS project – other Tiers
 - Linking with Ecological Focus Areas
 - Linking relevant policy ready research (contacts and curated set of references or KE materials)
 - Foresight – ongoing initiatives – EU, UK, Scotland



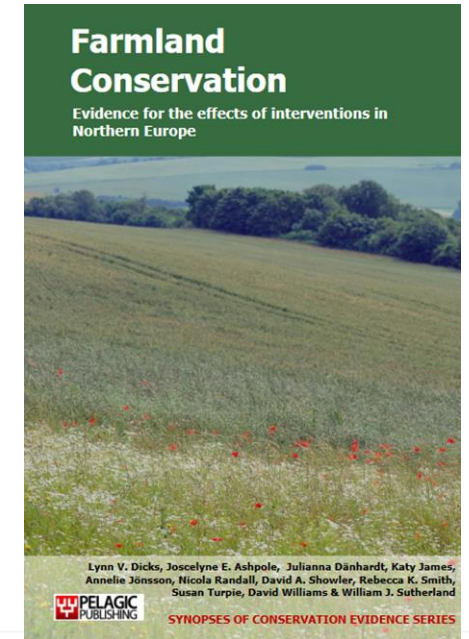
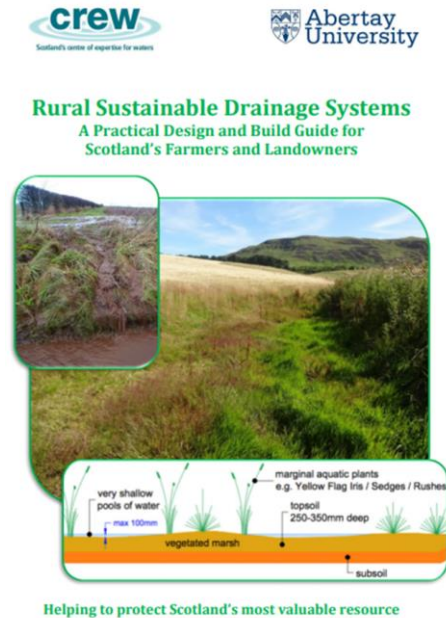
EC Top-down (Macro)

- Budgets
 - Overall – ambition vs. resource (£/Mt)
 - Between Tiers – Ag Transformation Fund – capital aspects.
- Distributions - regionalisation
 - In space – but how maps to habitats/natural capital conditions, potential for restoration.
 - Across businesses
 - 50% of businesses have 90% of the support, can they deliver 90% (or more) of the outcomes sought.

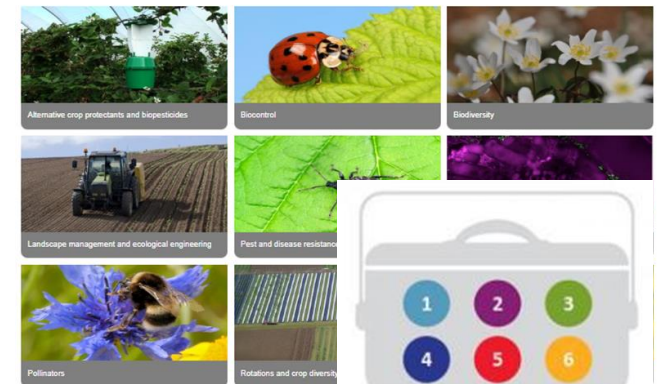


EC Bottom up (Micro)

- Uptake of measures
 - Recognise existing good practice
 - No impact if not implemented at scale
 - Multi-functionality (vs.) simplicity
 - Step-on, mainstream and stretch
 - Efficiency – Jevons Paradox, capping
 - Land-management, -use, -cover – increasing transformation but can be blocked by land value changes
- Effectiveness
 - Topics – water quality, aquatic ecology, resilience to climate change (water quant)
 - “It depends” – knowable, but adds complexity, “in aggregate” outcomes
 - Weightings
 - Knowledge – right measure, right place, done right.
 - Capacity?
- Research based materials

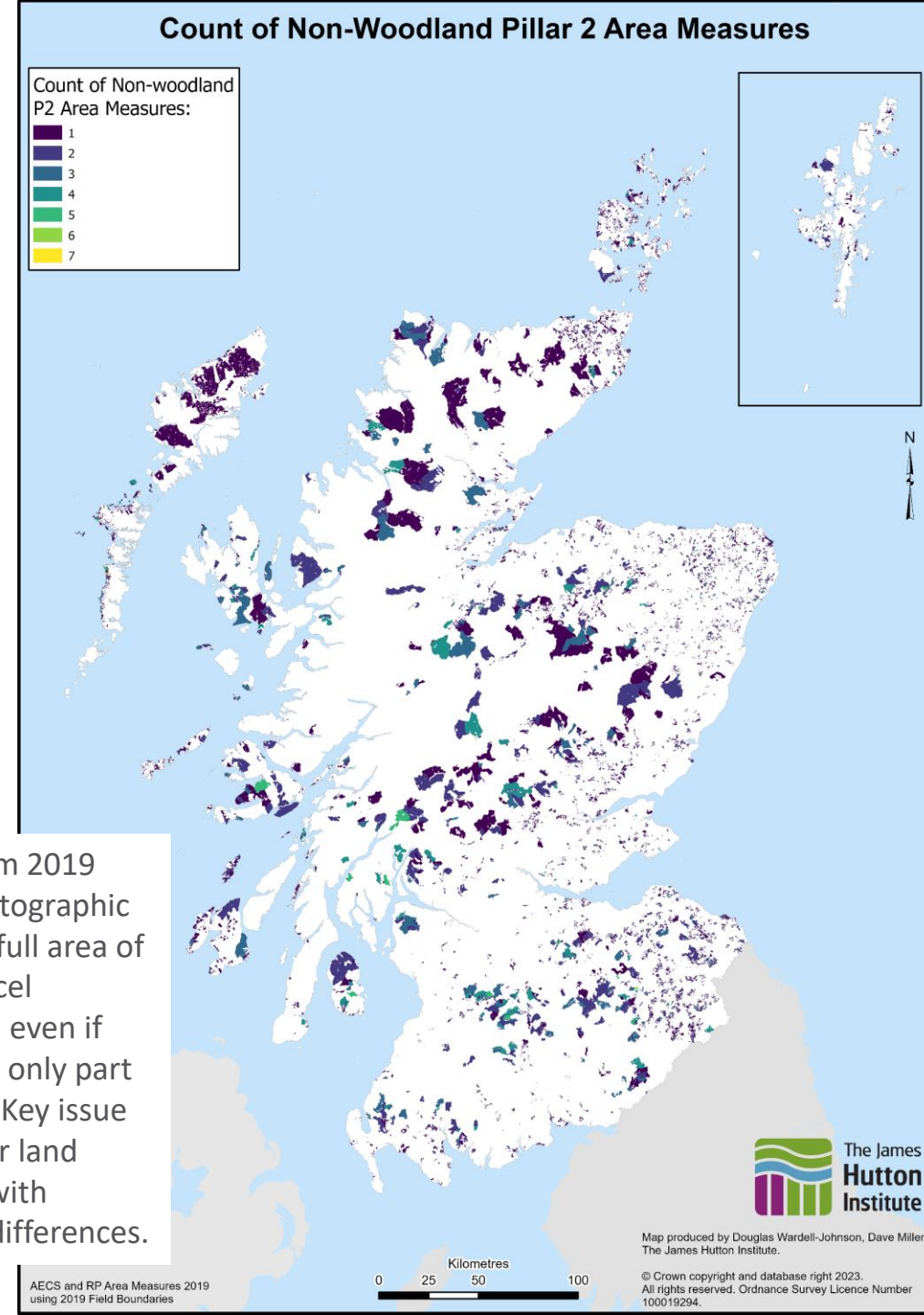


Topics



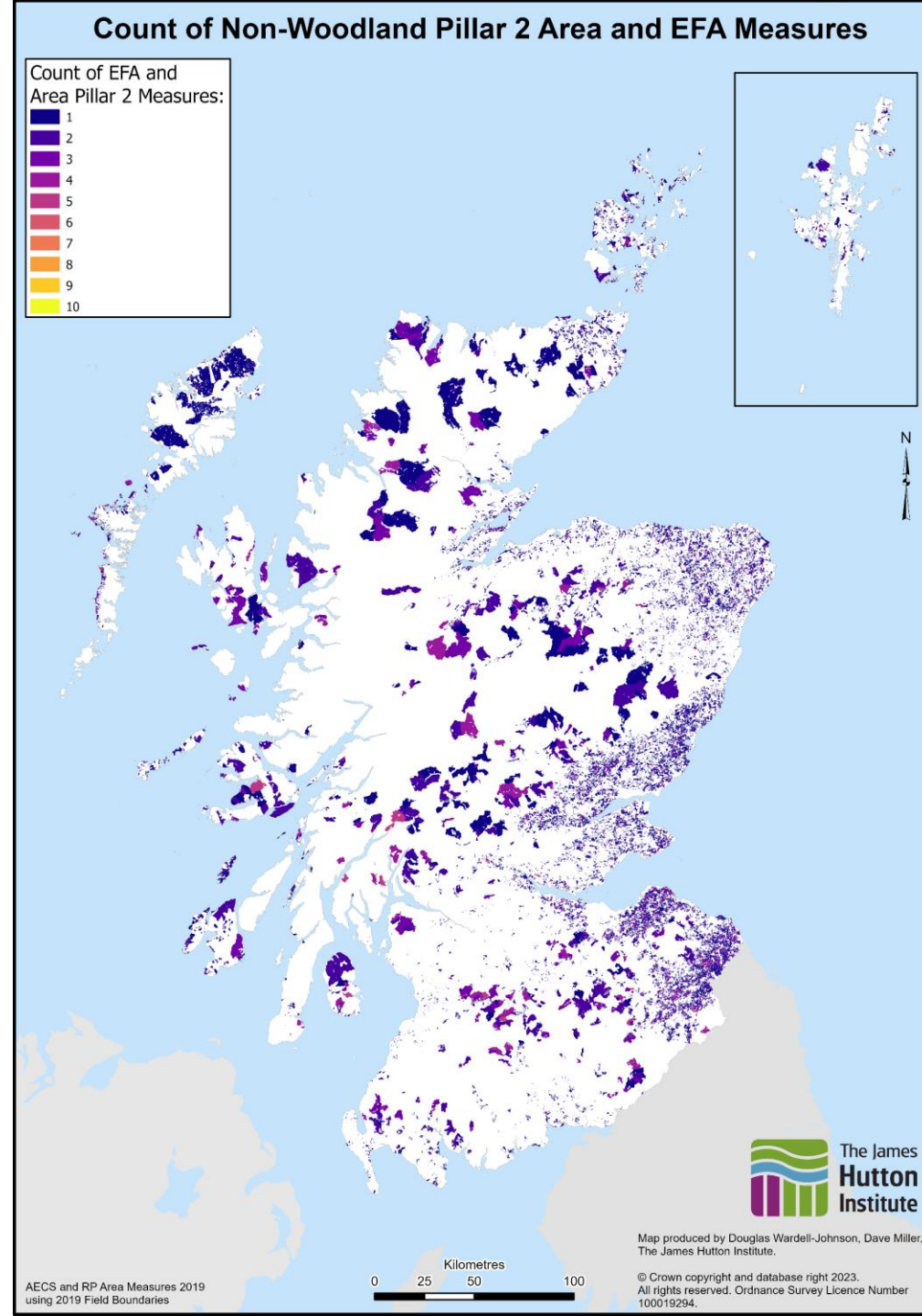
EC Meso-scale issues

- Interactions
 - Concentration – thresholds
 - Targeting via weightings
 - Coordination – networks/facilitators
 - Teleconnections
 - Benefits at distance (flooding)
 - Layering of measures
 - Hedge, margin, field etc – quantification
- Evaluation
 - Essential to justify spend
 - Actions and Outcomes
 - Outcomes at scale above farm
 - Attribution
 - Free riding and blocking
 - Time lags
 - Action to outcomes delays
 - Scheme funding and evaluation “windows”



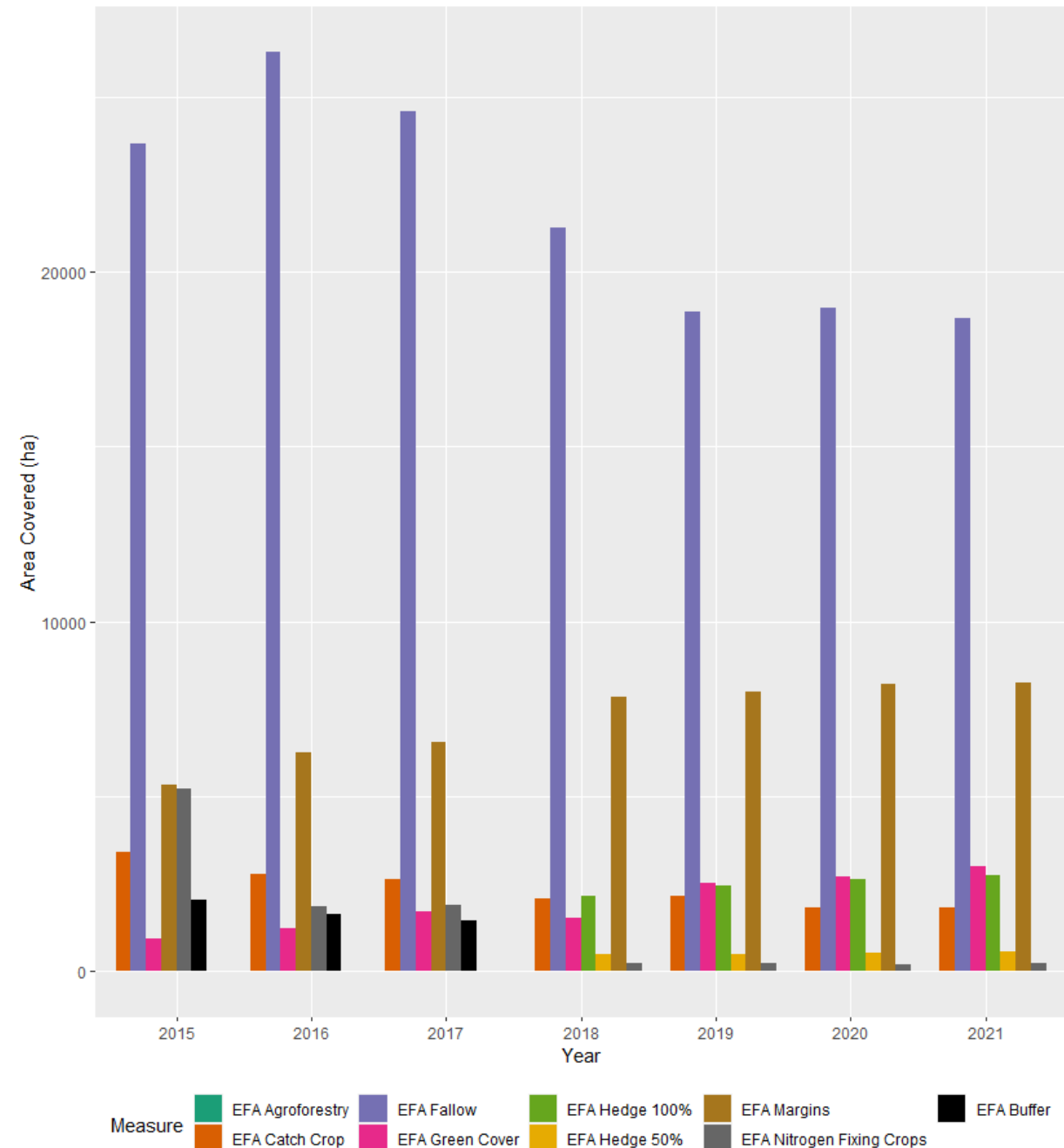
EC Meso-scale issues

- Interactions
 - Concentration – thresholds (compare maps this page and next)
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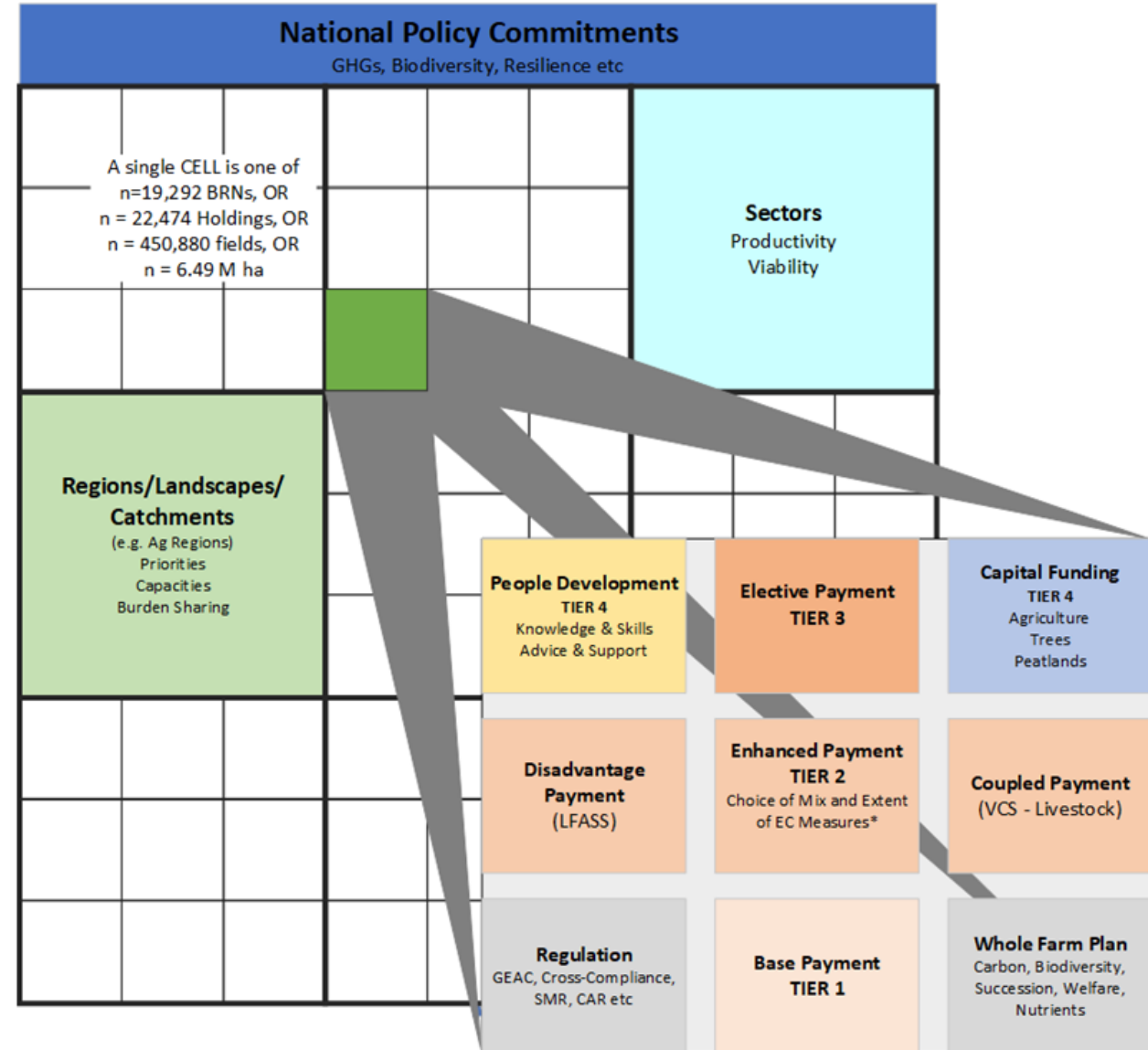
EFA Uptake analysis

- EFA as a “choice” experiment
- Business (>~30 ha of arable)
 - 3,470 of 19,292 SAF businesses
 - 0.71M ha of 6.49M ha SAF area or 3.9m ha Direct Payments
- Fallow – the “set-aside” effect
- Differences
 - Crop (more margins), Livestock (more fallow)
 - Interpretable regional preferences – e.g. for margins, catchment partnerships.
- Numbers of EFA measures – preferences for single measures (count of business) but great majority of EFA area is in businesses with 2+ measures



Policy “Sudoku”

- Making it “Add up”
 - Overall
 - Meso-scales
 - Priorities, capacities, burden sharing
 - Just Transition governance
- Uncertainty
 - ABM – backcasting
- Adaptation - monitoring



Next Steps and Options

- Further workshop with RPID leads (tbc)
- Complete the synthesis report
 - Screening Matrix review – visualise
 - Integrate text from – soils, biodiversity and waters teams
 - Share the report
 - Discuss the options for further analysis in the document
- Monitoring and Evaluation – of QST process
- Frame any QST Phase 2 analysis

■ from June 2023



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Previous related analyses are also available from the Hutton Land Systems Research Team website - <https://ics.hutton.ac.uk/research/land-systems-research-team/>

The sets of slides and maps generated in Agriculture Policy analysis from 2010 onwards are available from - <https://ics.hutton.ac.uk/research/land-systems-research-team/cap-analysis/>

For woodland expansion analysis see - [online mapping](#) and [paper](#).

[Story Map for Land Use Transformations](#) - land use change modelling.

Further research in the RESAS Strategic Research Programme 2022-27, in the [Land Use Transformations](#) (C3-JHI-1) and [Land Reform](#) (E3-JHI-1) projects.

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