HOW LEADER CONTRIBUTES TO RURAL DEVELOPMENT AND TO WHAT EXTENT: THE CASE FOR PROJECT LEVEL DATA AND QUANTITATIVE METHODS TO ASSESS LEADER

Conor Judge

DPhil Candidate, Dept of Sociology, Nuffield College, Oxford University

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INTRODUCTION

- Aim: High Level overview of PhD work
- <u>Contribution</u>: Use of project level data, geospatial techniques & quantitative and statistical analysis for the evaluation of LEADER and other rural development schemes in Europe
- Background / Experience
 - Economic and Social Research Institute (ESRI), Dublin Internship '18
 - IRD Duhallow (Implementing Partner/LEADER LAG) Development Officer (LEADER) 2018-2020
 - DPhil Candidate (PhD) in Sociology, Nuffield College, University of Oxford '21 present
 - ELARD Expert/Policy Analyst on Cowork4Youth Project –'22-present
 - Freelance Local Development Strategy collaborations [~13 LAG areas in Ireland] 2023

BACKGROUND AND CONTEXT

- Research challenge in LEADER & Community Development more broadly
 - Multiple, simultaneous funding sources & external influences
 - Difficulty in disentangling effects of any one program (Whelan, McGuinness and Barrett, 2021)
 - Broader macro-economic effects have more significant impact
- Narrow focus on economic indicators/employment (Dax and Oedl-Wieser, 2016; Castaño, Blanco and Martinez, 2019)
- Lack of effect of evaluation on future programming (Andersson, Höjgård and Rabinowicz, 2017)
- Lack of Counterfactuals / Causal methods
 - Method of using relevant comparison cases (Area / LAG / Policy/Programming changes)

EVALUATION CONTEXT

- <u>"Added Value" of LEADER approach</u> Benefits from the proper application of the LEADER method (area-based, bottom-up approach, public-private partnerships (LAGS), multi-sector approach, innovation, networking, territorial cooperation)
- European Court of Auditors (2010) Implementation of the Leader approach for rural development
- European Court of Auditors (2022) LEADER and community-led local development facilitates local engagement but additional benefits still not sufficiently demonstrated.
- European Commission (2023) Evaluation support study of the costs and benefits of the implementation of LEADER

WIDER CONTEXT: PARTICIPATORY DEVELOPMENT - EUROPEAN UNION & WORLD BANK

- Ample Academic Literature on World Bank 'Community Driven Development' (CDD) Schemes
 - Often Quasi-Experimental in nature; Analysis at the level of participants, not implementers
 - Forms part of evaluation of schemes in diverse national contexts
- Similar Academic literature for European Union 'Community Led-Local Development' (CLLD)
 - Literature not as developed; More of a qualitative / theoretical approach
- <u>Common concerns</u> re: Lack of evidence of effect of 'social capital' / improved local governance & vulnerable to elite capture / Lack of representation
- But Prolific in Policy Responses
- 'Compared to What?' problem (Casey, 2018) Need for comparison cases

LIMITATIONS OF CURRENT EVALUATION METHODS

- Data Gaps (Pg.56 of Evaluation Support Study, 2023)
 - Lack of systematic collection of 'added value' indicators for 2014-2022 programming period
 - Lack of comparative information In monitoring systems -> limits observations and less generalisable
- Comparability of LEADER/ non-LEADER projects (Pg.58)
 - Lack of clear demarcation of LEADER activity and non-LEADER activity in some contexts
 - Administrative/personnel costs may not be directly comparable
- Quality of collected primary data (Pg.58)
 - Precision of survey/interviews broad definitions and different contexts
 - Self-selection bias / Response bias Which groups agreed to be interviewed/collaborate? Which did not?
 - Social desirability bias "Importance of the next contract" & subjectivity in interview answers
- Sample Selection Advanced RDP's (Pg.36)
 - Financial execution > 70%

ADVANTAGES OF QUANTITATIVE METHODS AT PROJECT LEVEL

- Low <u>Cost</u> + Data already exists
- Size of datasets More generalisable to the entire LEADER context, not selected samples
- <u>Sample</u> Low cost allows for much greater number of LAGS assessed, lessens risk of sample selection
- <u>Objectivity</u> Avoids Response bias/Social Desirability bias in answers obtained
- <u>Descriptive Statistics</u> & <u>Historical</u> LEADER information Longer term effects
- Advanced Methods to assess LEADER and confront research challenge
- Support, not replace existing evaluation methods Different Questions & Different approaches

DATA PROCESS 1: PROJECT INFORMATION

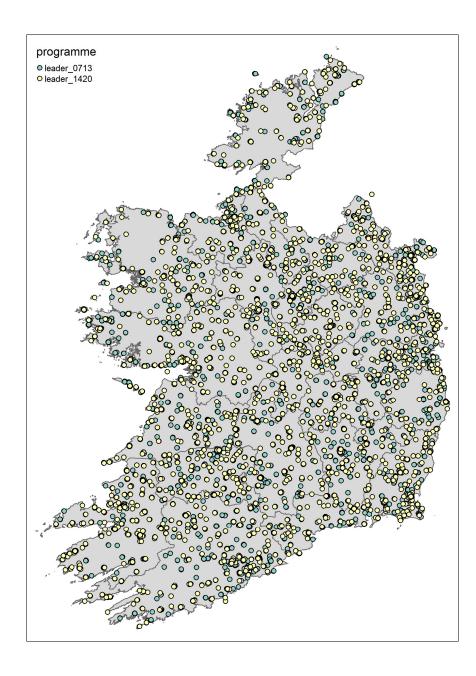
- Dataset created from publicly available sources
 - Project Name/Description
 - Program / Area / LAG area / Promoter legal name / LEADER funding / Total Project Cost / Sub-theme
- Note added potential of IT system integration / monitoring data

Community Buildings Mentoring	leader_0713	Bagenalstown	Co. Carlow	5424.54	5424.54 Training and information
Public Relations Training for Carlow Farmers Market	leader_0713	Bagenalstown	Co. Carlow	3742.2	3742.2 Training and information
Development of Ballymurphy Community Hall	leader_0713	Carlow	Co. Carlow	100650	134200 Basic services for the economy and rural population
Roofing & refurbishing seating area of Bagenalstown Swimming Pool	leader_0713	Carlow	Co. Carlow	74232.75	98977 Basic services for the economy and rural population
Co. Carlow Collective Tourism Marketing 2010 Phase 2	leader_0713	College Street	Carlow	47842.48	63789.98 Encouragement of tourism activities
Ballon Free Range Eggs expansion of Egg Grading & Packing Facilities	leader_0713	Ballon	Co. Carlow	25925	51850 Business creation and development
Collective Tourism Marketing for County Carlow	leader_0713	College Street	Carlow	11128.7	14838.27 Encouragement of tourism activities
Carlow Community Enterprise Centre Development Phase 3	leader_0713	O'Brien Road	Carlow	110503.97	147338.63 Business creation and development
Feasibility to assess the potential to expand operations at the Waddock Co	mp leader_0713	Carlow	Co. Carlow	2997	3996 Conservation and upgrading of the rural heritage
County Carlow Craft Exhibition Initiative/Installation of 3 Phase Electricity	leader_0713	Bagenalstown	Co. Carlow	33143.58	44191.45 Basic services for the economy and rural population
Development of St. Laserians Cathedral to facilitate tours and educational v	visitsleader_0713	Old Leighlin	Co. Carlow	73777.25	98369.67 Encouragement of tourism activities
Development of Equestrian Centre - new arena surface and multifunctional	vievleader_0713	Rathvilly	Co. Carlow	46452.38	92904.77 Encouragement of tourism activities
Expansion of the Waddock Composting Facility	leader_0713	Carlow	Co. Carlow	150000	494211.57 Conservation and upgrading of the rural heritage



DATA PROCESS 2: GEOCODING

- Geocoded using Google API
 - Figure: All LEADER project locations in Ireland 2007-2022.
- Allows for precise co-ordinates using address data
 - Low Cost / Free to use (monthly limit)
 - Finds Exact spatial co-ordinates for address data
 - Relatively Accurate (~ 90-95%) [2014-2022]
 - 89.58% of projects geocoded
 - 90.06% of value
 - Some manual cleaning (Poor quality address data, especially 2007-2013)



DATA PROCESS 3: CENSUS DATA

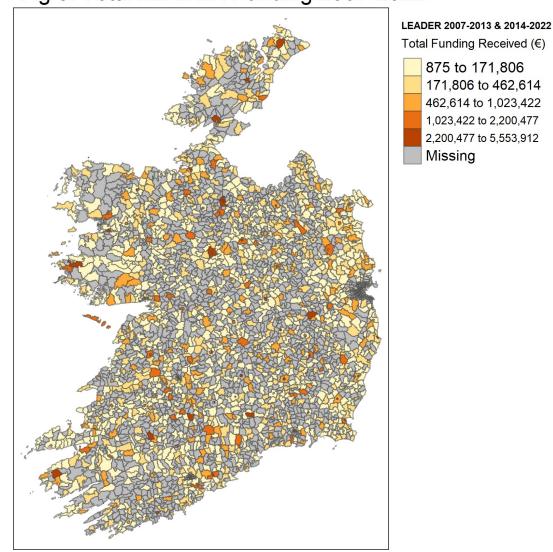
- Dataset with approximately 16,000 projects totalling €855 Million, over 15 years
- Area Level: Electoral Division
- Average Population ~ 1500
- Average size ~ 20km^2
- Particularly useful for assessment of **community level** dynamics
- Electoral Divisions consistent historically allows longer term statistical information

Fig 3: Total LEADER Funding 2007-2022

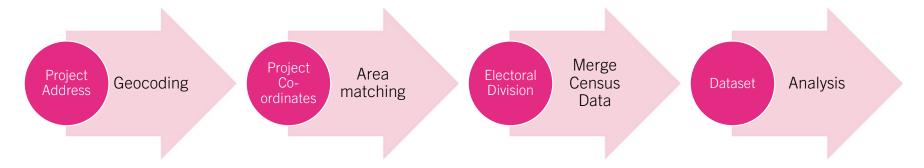
875 to 171,806 171,806 to 462,614

Missing

462,614 to 1,023,422 1,023,422 to 2,200,477 2,200,477 to 5,553,912



DATA PROCESS

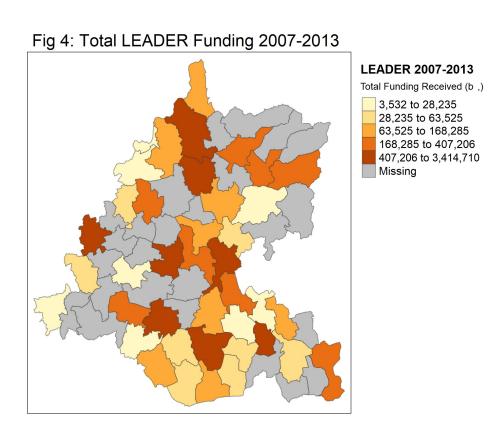


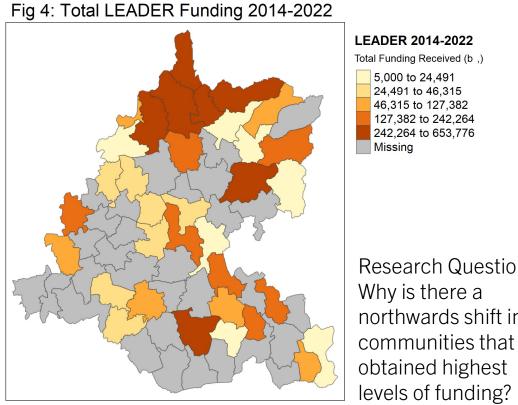
- Note: Data other than Census also possible here (European surveys / geographical information / national statistics at regional level)

USE OF DATA — LAG LEVEL

- Multiple levels which data can be used at LAG / National or Regional (MA) / International (MS's)
- Poor knowledge of historical investments in LEADER at local level
 - Where has LEADER supported before? What makes a 'good' LEADER project?
- Within-LAG Area variation
- Example from Ireland 2023 Local Development Strategies
 - Brief (10pgs) Chapter that geo-located all LEADER projects over 15 years in LAG area
 - Chapter used in Local Development Strategy Applications in 13 LAG areas.
 - <u>Mapping and Analysis</u> provided by total value, change between programs, thematic breakdown, relationship to population density / deprivation / ethnic minorities etc
 - Assisted LAGs to <u>plan strategies for animation</u> in upcoming 2023-2027 programming period Areas for improvement by geography, theme, funding supports
 - Assisted LAGs with animation work by <u>providing visualisations</u> of historical LEADER investments within LAG area for use at community/project promoter meetings

USES: LAG LEVEL; WITHIN AREA VARIATION

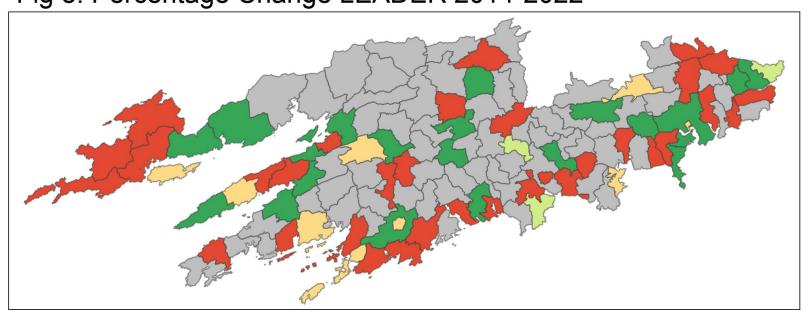




Research Question – Why is there a northwards shift in

USES: LAG LEVEL; CHANGE ACROSS PROGRAM

Fig 8: Percentage Change LEADER 2014-2022



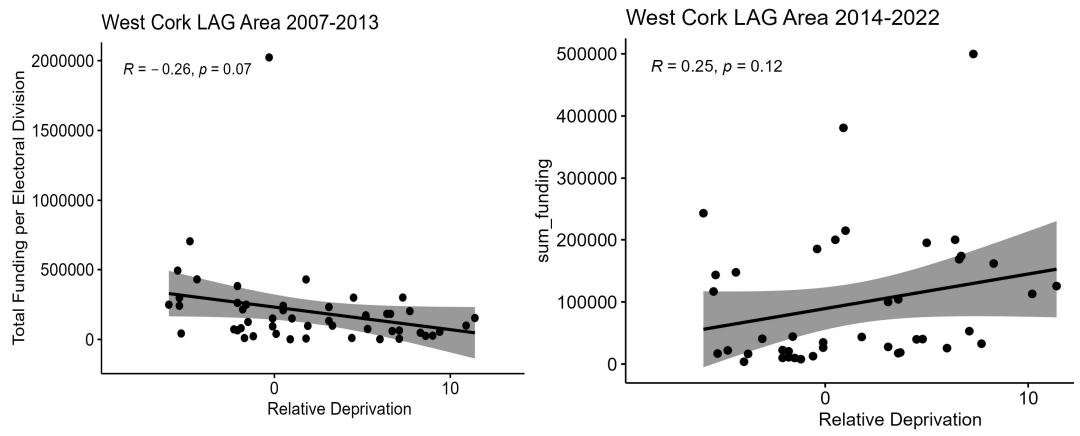
LEADER 2014-2022

Percentage Change(%)



Research Question — Why is there a decline in LEADER funding for coastal and peripheral communities in this LAG area?

USES: LAG LEVEL; EFFECT OF POLICY CHANGES



Research Question — Why is there a complete change in the relationship between LEADER funding obtained and the deprivation (rural poverty) of those areas across two programs? Change in LAG? Change in policy?

USE OF DATA — NATIONAL LEVEL

- National / Regional Level (MA) Greater potential for contribution to EU and wider research concerns
- Wider context of difficulty of CLLD evaluation
- Limitations of current methods & Advantages of quantitative assessments
- Research Concern of Added Value Social Capital, Improved Governance, Improved Project Results / Bringing Europe closer to its citizens
- International comparability of LEADER

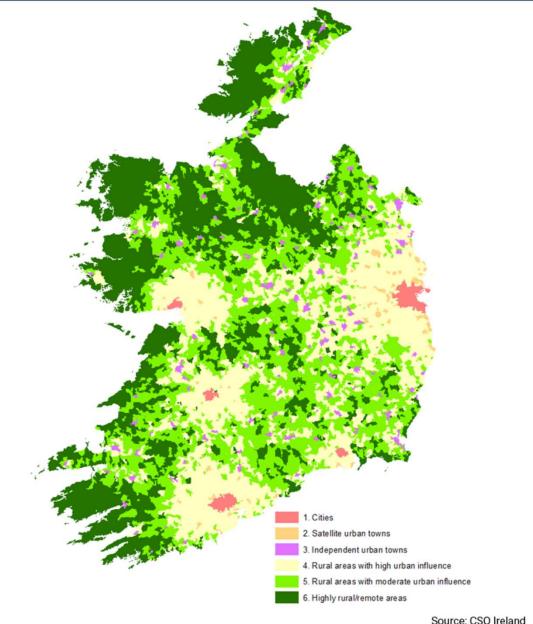
USES: NATIONAL LEVEL; SUMMARY STATISTICS

	LEADER 2007 - 2013 (N= <mark>9274</mark>)	LEADER 2014 - 2020 (N= <mark>4880</mark>)	Total (N=14154)
Funding Value (€)			
Mean	<mark>28607</mark> .52	<mark>43518</mark> .43	33748.49
Median	10000.00	21317.62	13733.79
Q1, Q3	4050.92, 28744.03	9138.19, 49630.26	5091.99, 35650.67
Total	<mark>265306217</mark> .25	<mark>212369952</mark> .27	477676169.52
LEADER Sub-Theme			
Agricultural Diversification	348 (3.8%)	0 (0.0%)	348 (2.5%)
Animation	346 (3.7%)	0 (0.0%)	346 (2.4%)
Basics Services	1216 (13.1%)	1245 (25.5%)	2461 (17.4%)
Broadband	0 (0.0%)	<mark>115 (2.4%)</mark>	115 (0.8%)
Business Development	1355 (14.6%)	943 (19.3%)	2298 (16.2%)
Co-operation	292 (3.1%)	0 (0.0%)	292 (2.1%)
Environmental	0 (0.0%)	626 (12.8%)	626 (4.4%)
Heritage	1227 (13.2%)	0 (0.0%)	1227 (8.7%)
Tourism	1793 (19.3%)	1032 (21.1%)	2825 (20.0%)
Training	1643 (17.7%)	0 (0.0%)	1643 (11.6%)
Town & Village Development	1054 (11.4%)	665 (13.6%)	1719 (12.1%)
Youth	0 (0.0%)	254 (5.2%)	254 (1.8%)

Research Question — Is the ~50% fall in the number of projects an effect of the administrative burden increasing?

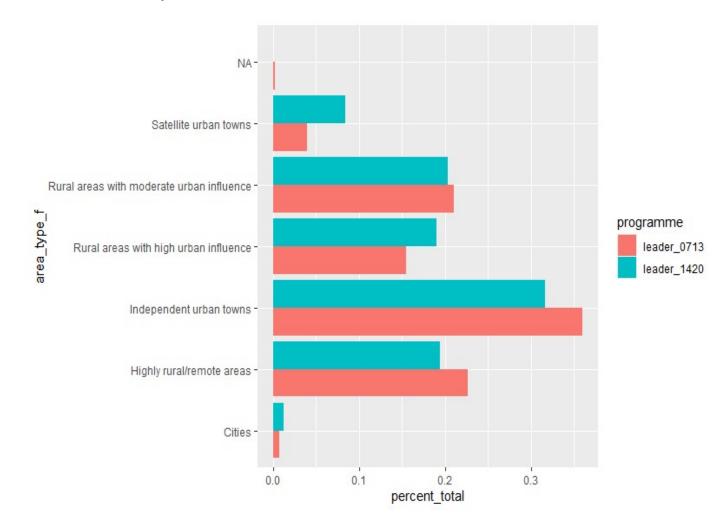
USES: NATIONAL LEVEL; RURAL/URBAN

- Released by Irish Central Statistics Office (CSO,2019)
- 6 Way Rural-Urban Typology
- Categorisation based on Population, place of work, access to services
- One of various measurements of Rural-Urban in Europe (GRANULAR Project)



USES: NATIONAL LEVEL; RURAL/URBAN

- Relative decreases for Highly remote / Rural Areas & Independent Urban Towns
- Relative increase for Satellite Urban Towns / Rural areas with high urban influence
- Preliminary evidence of Urban Shift in funding?



USES: NATIONAL LEVEL; EVALUATION CHALLENGES

- Two Key Contributions & preliminary results
- 1) Social Capital Indicators
- 2) Comparison to Non-LEADER Rural Development projects
 - Irish Context since 2016 Significant non-EU rural development programs initiated
- Future Possible Contributions
- Added Value challenge possible to choose indicators that provide evidence for this?
 - -Localised economic data / Census / Eurostat / ESS / EU-SILC
- "Bringing Europe closer to its Citizens" (European Commission, 2022) -
 - -Local political & electoral data

Dependent variable:

USES: NATIONAL LEVEL; EVALUATION CHALLENGES

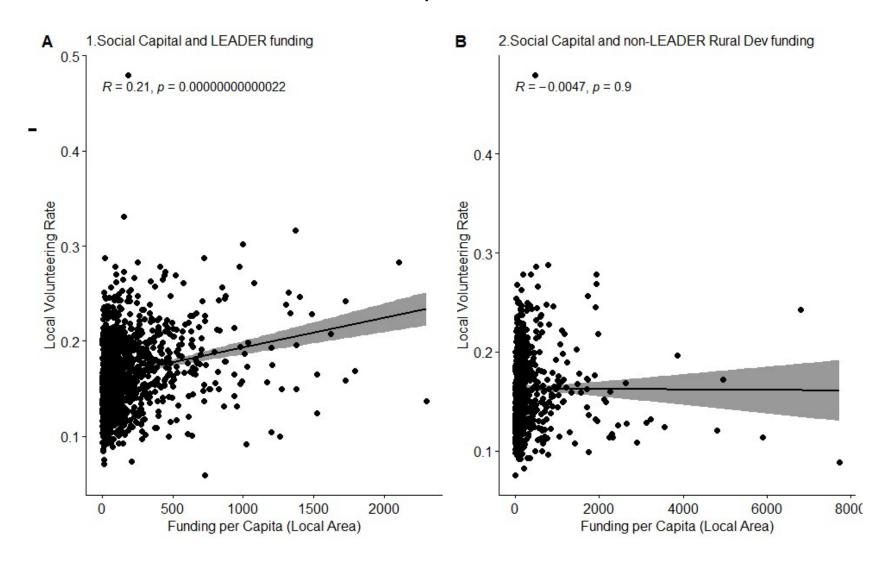
- "Social Capital" ~ Trust, norms, networks (Putnam, 1993)
- Volunteering & Charity density often used as a proxy in academic literature
- High level of correlation between LEADER funding & social capital measures
- Notable difference to non-LEADER schemes

<u>-</u>	Dependent variable.			
	EU Rural Development Funding	Central Government Rural Development Funding		
Town/Village Dummy	1.776***	1.875***		
,	(0.107)	(0.088)		
Local Deprivation Score	-0.030***	-0.061***		
	(0.008)	(0.007)		
Local Population	-0.00003	-0.00004^*		
	(0.00003)	(0.00002)		
Distance to capital	-0.0003	-0.002***		
	(0.001)	(0.001)		
Local Volunteering Rate	9.444***	4.261***		
C	(1.215)	(1.001)		
CLLD office Dummy	1.529***	0.301		
,	(0.416)	(0.342)		
Number of matched Surnames (log)	0.092***	0.112***		
	(0.030)	(0.025)		
Number of local charities	0.214***	0.082***		
	(0.035)	(0.029)		
Constant	0.966***	0.602***		
	(0.242)	(0.199)		
Observations	2,865	2,865		
\mathbb{R}^2	0.287	0.314		
Adjusted R ²	0.285	0.312		
Residual Std. Error (df = 2856)	2.254	1.857		
F Statistic (df = 8; 2856)	143.742***	163.355***		
Note:		*p**p***p<0.0		

Note: Government funding 2016-2022 only

*Log-Log regression

USES: NATIONAL LEVEL; EVALUATION CHALLENGES



APPLICATION TO OTHER MEMBER STATES

- Method can be generalised to other Member States at low cost if data exists!
- Either simplified project data or outputs from IT / Monitoring systems
- Importance of common terminology & language interpretation national/local context
- Importance of accurate and pre-planned data collection before analysis
 - Internal (LAG-led projects)
 - Projects with impact in multiple areas
 - Promoter Address data and particularities
- Support evaluation in upcoming program, in addition to current methods.

CONCLUSION/FUTURE

- Future data sources
 - -Political/Electoral Data "Bringing Europe closer its citizens"
 - Does Cohesion Policy reduce EU discontent and Euroscepticism? (Rodríguez-Pose & Dijkstra, 2021)
 - European micro-data Social Capital measures
 - Improved Project Results Project Level Data!
 - Better use of data from IT / Monitoring systems for support of LEADER evaluation concerns
- Causal / Counterfactual methods
 - Importance of comprehensive research design & utilisation of policy changes at European/Member state level to infer effect on LEADER
 - Account for range of other macro-effects at local level through nuanced selection of research opportunities

THANK YOU!

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- Email: conor.judge@nuffield.ox.ac.uk







