



# PERCEIVE Final Conference

An improved Cohesion Policy  
for a stronger EU

June 19<sup>th</sup> 2019

Brussels



PERCEIVE  
PROJECT

GRANT AGREEMENT NUMBER 693529

# Integrating Cohesion and Rural policies

Adam Cox, University of Portsmouth

Paweł Chmieliński, Institute of Agricultural  
and Food Economics – National Research  
Institute (IAFE – NRI)



# Integrating Cohesion and Rural Policies

- There is a relationship between cohesion (CP) and rural (CAP) policy funding in the same geographic areas.
- These relationships are the positive (synergy) and negative (trade off) impacts of one policy category on another.
- Identify the specific funding sub-categories that work successfully in tandem and those that, when mixed in the same location, have a detrimental impact.
- The peculiar policy mix can generate a positive synergy, to some extent eventually it can be extended to other policy realms.



# Is there a significant synergy (or trade off) between cohesion and rural policies?

- “Funds of different policies targeting the same areas having a ‘cumulative’ and/or ‘knock-on’ process among the policies”.
- Research on the synergy and trade-offs of EU CP and CAP remains extremely limited, with notable contribution from Crescenzi et al. (2015)<sup>5</sup>.
- Investigate the interaction between regional CP and CAP, 2007-13 within an EU-wide NUTS 2 level analysis merging Eurostat and FADN data.
- Granulated analysis using sub-categories of policy funding.
- Linear regression controlling for economic performance, rural characteristics, and structural disadvantage.



# Cohesion expenditure

- **Cohesion Policy:** 2007–2013 ERDF and Cohesion Fund NUTS 2 level expenditure<sup>6</sup>.

<b>Cohesion policy expenditure (Euros per capita)</b>	<b>Mean</b>	<b>SD</b>	<b>Min</b>	<b>Max</b>
Total Cohesion Policy	427.05	546.88	1.18	3500.61
Business support	51.22	77.47	0.00	459.99
Energy	17.55	34.94	0.00	274.90
Environment and natural resources	61.52	96.06	0.00	640.42
Human resources	1.45	3.50	0.00	26.15
IT infrastructure and services	15.96	24.30	0.00	221.29
Research and Technology	54.63	65.96	0.06	414.25
Social infrastructure	38.06	85.18	0.00	837.56
Technical assistance	12.30	28.46	0.00	308.04
Tourism & Culture	18.24	29.94	0.00	240.06
Transport infrastructure	135.87	226.66	0.00	1463.33
Urban and rural regeneration	17.17	27.92	0.00	220.18
Other	3.07	20.50	0.00	199.57



# CAP: Farm Accountancy Data Network

<b>CAP expenditure (Euros per capita)</b>	<b>Mean</b>	<b>SD</b>	<b>Min</b>	<b>Max</b>
Total Rural Policy expenditure	81.70	156.86	0.00	1179.81
Subsidies on investments (SE406)	5.61	21.34	0.00	209.09
Total subsidies (not investments) (SE605)	76.09	140.82	0.00	1078.91
Subsidies on crops (SE610)	3.33	8.93	0.00	70.51
<i>Compensatory payments/area payments (SE611)</i>	0.63	1.91	0.00	12.40
<i>Set aside premiums (SE612)</i>	0.01	0.04	0.00	0.32
<i>Other crops subsidies (SE613)</i>	2.58	8.67	0.00	70.51
Subsidies on livestock (SE615)	6.83	25.08	-1.79	240.82
<i>Subsidies dairying (SE616)</i>	1.32	9.32	-2.76	110.63
<i>Subsidies other cattle (SE617)</i>	2.96	10.72	0.00	96.95
<i>Subsidies sheep &amp; goats (SE618)</i>	0.37	1.09	0.00	9.87
<i>Other livestock subsidies (SE619)</i>	2.18	16.43	0.00	243.15
Total support for rural development (SE624)	17.13	50.40	0.00	533.14
<i>Environmental subsidies (SE621)</i>	8.47	21.66	0.00	232.95
<i>LFA subsidies (SE622)</i>	8.01	28.65	0.00	284.16
<i>Other rural development payments (SE623)</i>	0.65	1.53	0.00	16.02
Subsidies on intermediate consumption (SE625)	1.61	5.32	0.00	41.91
Subsidies on external factors (SE626)	0.53	1.62	0.00	9.32
Decoupled payments (SE630)	42.23	76.48	0.00	562.52
<i>Single Farm payment (SE631)</i>	32.58	66.93	0.00	562.32
<i>Single Area payment (SE632)</i>	9.55	44.55	0.00	521.12
Additional aid (SE640)	0.10	0.17	0.00	1.36
Support Art.68 (SE650)	0.89	2.06	0.00	18.56
Other subsidies (SE699)	4.42	11.37	0.00	86.61



# Significant synergy (and trade off) between cohesion and rural policies

Cohesion policy		Common agricultural policy
<b>Synergies between:</b>		
Business support	<->	Subsidies on dairying SE616
Social infrastructure	<->	Subsidies on dairying SE616
Transport infrastructure	<->	Subsidies on dairying SE616
Other	<->	Other crops subsidies SE613
Research and technology	<->	Other subsidies SE699
<b>Trade offs between:</b>		
Human resources	<->	Single farm payment SE631
IT infrastructure and services	<->	Compensatory payments/area payments SE611
Social infrastructure	<->	Other subsidies SE699
Urban and rural regeneration	<->	Subsidies on investments SE406
Urban and rural regeneration	<->	Set aside premiums SE612
Urban and rural regeneration	<->	Subsidies other cattle SE617
Other	<->	Additional aid SE640



# Policy implications

- **Synergies** between support of business and infrastructure (CP) and on dairying (CAP) - regional agglomeration effects
- **Trade offs** between human resources (CP) and the farm payments (CAP) -
- **Trade offs** between Urban and rural regeneration (CP) and Subsidies on investments, crop and livestock production (CAP) – regions where agri-food sector is particularly important attract more CAP, otherwise measures to support the non-agricultural economy in the region is more significant.
- Structurally disadvantaged regions attract expenditure synergies - **careful coordination between policies would increase the possibility of cumulative impacts of EU funds.**





# Summary

- Taking into account structural place-based characteristics, there is robust evidence of policy synergy and trade off.
- At the regional level the specific funding sub-categories work successfully in tandem. **Agglomeration economies** have a significant impact on productivity, potential for growth in the regions (eg. Veneri & Ruiz, 2016) but also on CP/CAP absorption rates.
- CAP support to production generate trade-off with specific cohesion tools – regional diversity in terms of demand for funds under both policies.
- Results provide evidence to support the presence of ‘pro-cohesion’ policies that provide a cumulative impact and are focused on structurally disadvantaged regions.



# References

1. EUROPEAN COMMISSION (2010). Europe 2020, A European Strategy for Smart, Sustainable and Inclusive Growth. COM(2010)2020. European Commission, Brussels.
2. EUROPEAN COMMISSION (2010). The CAP Towards 2020: Meeting the Food, Natural Resources and Territorial Challenges of the Future. COM (2010) 672 final. European Commission, Brussels.
3. Barca F. (2009) An Agenda for a Reformed Cohesion Policy. Independent report. Brussels
4. Kuokkanen K. and Vihinen H. (2006) Contribution of the CAP to the General Objectives of the EU. MTT Economic Research, Background Note No. 4
5. Crescenzi, R., De Filippis, F., & Pierangeli, F. (2015). In tandem for cohesion? Synergies and conflicts between regional and agricultural policies of the European Union. *Regional Studies*, 49(4), 681-704.
6. [https://ec.europa.eu/regional\\_policy/en/policy/evaluations/data-for-research/](https://ec.europa.eu/regional_policy/en/policy/evaluations/data-for-research/)
7. <https://ec.europa.eu/eurostat/web/nuts/history>
8. [https://ec.europa.eu/agriculture/fadn\\_en](https://ec.europa.eu/agriculture/fadn_en)
9. [https://ec.europa.eu/agriculture/statistics/rural-development/2013\\_en](https://ec.europa.eu/agriculture/statistics/rural-development/2013_en)
10. Greco, S., Ishizaka, A., Tasiou, M., & Torrìsi, G. (2019a). On the methodological framework of composite indices: A review of the issues of weighting, aggregation, and robustness. *Social Indicators Research*, 141(1), 61-94.



# Appendix 1: Rural Characteristics Index

- **Rural characteristics index:** A composite measure of the rural development and structural performance (in part) of the region, with larger values denoting a better performing region and vice versa. 'Rural Development in the EU – Statistical and Economic Information Report – 2013'<sup>9</sup>.



# Appendix 1: Rural Characteristics Index

Data ref	Description	Mean	SD	Min	Max
ra1	% territory in predominantly rural regions	46.01	33.31	0	100
ra4	% population in predominantly rural regions	35.1	32.3	0	100
ra10	% employment in predominantly rural regions	33.69	32	0	100.03
se1	Population density hab/km2	202.12	339.86	23.4	2373.9
se4	% people aged 15-64	66.23	2.57	61.45	72.66
se6	Old-age dependency ratio (pop 65+/ pop 15-64) per 100	28.04	5.46	17.42	43.93
<b>se28</b>	<b>Long-term unemployment (% total unemployment)</b>	<b>44.77</b>	<b>9.29</b>	<b>17.67</b>	<b>67.07</b>
sect2	Share of employment in primary sector (Branch A) % of total employment	8.25	9.45	0.17	51.39
sect28	Share of employment in food industry (% total employment)	2.84	1.21	0.55	7.29
div1	% Famers (holders) with other gainful activity	36.77	16.86	13.22	83.72
div15	Net migration (Total pop change-Natural pop change/Average annual pop) per 1000	1.29	3.9	-4.9	21.6
<b>div17</b>	<b>% adults (25-64) with medium or high educational attainment</b>	<b>66.77</b>	<b>15.2</b>	<b>24.49</b>	<b>93.99</b>



# Appendix 2: Economic Performance

- **GDP per capita:** GDP (pps) per capita captures variation in economic strength across regions. GDP data is taken from the Eurostat database .

	<b>Mean</b>	<b>SD</b>	<b>Min</b>	<b>Max</b>
Rural characteristics index	0.58	0.22	0.00	1.00
GDP PPS per inhabitant	28459.81	25198.65	7300.00	228000.00

- All regions are NUTS 2, with the exception of a number of areas in Germany where rural policy expenditure is available at NUTS 1 level only (DE1, DE2, DE7, DE9, DEA, DEB, DED).
- Rural characteristics dataset includes data for matching all regions with the exception of Croatia HR01 and HR02. As such, the complete dataset spans across 242 regions.



# Appendix 3: Methodology

- Linear regression similar to Crescenzi et al. (2015). Country level fixed effects.
  1. To what extent do regions suffering from structural disadvantages attract more cohesion and rural policy funding? **Eq. 1 ( $\beta_1, \beta_2$ )**
  2. Is there a significant synergy (or trade off) between cohesion and rural policies? **Eq. 1 ( $\gamma$ )**
  3. To what extent do synergies coincide with the most structurally disadvantaged regions? **Eq. 3 ( $\beta_1, \beta_2, \delta_1, \delta_2$ )**

$$CP\_exp_i = \alpha + \mu_i + \beta_1 X\_char_i + \beta_2 gdp_i + \gamma RP\_exp_i + \varepsilon_i \quad (1)$$

$$CP\_total_i = \alpha + \mu + \beta_1 X\_char_i + \beta_2 gdp_i + \gamma RP\_total_i + \delta_1 (X\_char_i \cdot RP\_exp_i) + \delta_2 (gdp_i \cdot RP\_exp_i) + \varepsilon_i \quad (3)$$



# Appendix 4: Rural Policy Expenditure descriptions



PERCEIVE  
PROJECT

GRANT AGREEMENT NUMBER 693529

Adam Cox, University of Portsmouth · Paweł Chmieliński, IAFE-NRI

PERCEIVE Final Conference



<b>Policy for programming period 2007 – 2013</b>	<b>Description</b>
Subsidies on investments (SE406)	Subsidies on investments. Total payments = SE406 + SE605.
Total subsidies (not investments) (SE605)	Subsidies on current operations linked to production (not investments). Comprised of SE610-SE699.
Subsidies on crops (SE610)	All farm subsidies on crops, including compensatory payments and set-aside premiums.
<i>Compensatory payments/area payments (SE611)</i>	<i>Amounts paid to producers of cereals, oilseeds and protein crops and energy crops. Part of SE610.</i>
<i>Set aside premiums (SE612)</i>	<i>Amount of premiums received by COP producers obliged to set aside land. Part of SE610.</i>
<i>Other crops subsidies (SE613)</i>	<i>All other farm subsidies on field, horticultural and permanent crops. Part of SE610.</i>
Subsidies on livestock (SE615)	All farm subsidies on livestock and livestock products.
<i>Subsidies dairying (SE616)</i>	<i>In addition to dairy premium, includes subsidies on dairy products. Part of SE615.</i>
<i>Subsidies other cattle (SE617)</i>	<i>All farm subsidies for cattle other than dairy cows in production. Part of SE615.</i>
<i>Subsidies sheep &amp; goats (SE618)</i>	<i>In addition to ewe (and goat) premiums, includes subsidies on sheep/goat milk products. Part of SE615.</i>
<i>Other livestock subsidies (SE619)</i>	<i>Other farm subsidies on other livestock products. Part of SE615.</i>
Total support for rural development (SE624)	Includes environmental subsidies, LFA subsidies, and other Rural Development payments.
<i>Environmental subsidies (SE621)</i>	<i>Including part of the measures of the article 69 Regulation 1782/2003. Part of SE624.</i>
<i>LFA subsidies (SE622)</i>	<i>Less favoured area subsidies. Part of SE624.</i>
<i>Other rural development payments (SE623)</i>	<i>Support to help farmers adapt to standards, to use advisory services, improve quality of products, training, afforestation and ecological stability of forests. Part of SE624.</i>
Subsidies on intermediate consumption (SE625)	All farm subsidies on intermediate consumption. Excludes subsidies on wages, rent, taxes and interest.
Subsidies on external factors (SE626)	Subsidies on wages, rent and interests.
Decoupled payments (SE630)	Single farm payment and single area payment scheme, including additional aid.
<i>Single Farm payment (SE631)</i>	<i>Part of SE630.</i>
<i>Single Area payment (SE632)</i>	<i>Scheme only for new member states, not chosen by Malta and Slovenia. Part of SE630.</i>
Additional aid (SE640)	Amount resulting from the application of modulation to the first EUR 5000 or less of direct payments.
Support Art.68 (SE650)	Broad ranging specific support. Amongst other things, this includes subsidies to improve quality and marketing of agricultural products, animal welfare standards, and insurance premiums.
Other subsidies (SE699)	Other subsidies received. Including also grants and subsidies for disasters or extraordinary subsidies (agrimonetary compensation, etc.).





# Appendix 5: Cohesion policy and sub categories of Rural policy



PERCEIVE  
PROJECT

GRANT AGREEMENT NUMBER 693529

Adam Cox, University of Portsmouth · Paweł Chmieliński, IAFE-NRI

PERCEIVE Final Conference



VARIABLES	(1) Total cohesion policy	(2) Business support	(3) Energy	(4) Environment and natural resources	(5) Human resources	(6) IT infrastructure and services	(7) Research and Technology	(8) Social infrastructure	(9) Technical assistance	(10) Tourism and Culture	(11) Transport infrastructure	(12) Urban and rural regeneration	(13) Other
Structural characteristics index	-576.6***	-81.60***	-30.08**	-112.6***	-1.759	-8.013	-77.66**	-82.38***	-4.523	-12.69	-132.3*	-35.55**	2.600
GDP PPS per inhabitant	-0.00181***	-0.000327***	-8.13e-05***	-0.000253**	-2.16e-05*	-2.76e-06	-0.000293***	-0.000223**	5.06e-05	-0.000111**	-0.000372*	-0.000163***	-1.64e-05
Subsidies on investments	9.891	2.723***	-0.377	2.071	-0.155***	0.292	-0.0491	3.765**	1.151**	0.000452	0.425	-0.602	0.647
Compensatory payments/area payments	-2.562	-1.061	0.129	2.479	0.238*	-2.495**	-2.733	1.649	-3.335**	2.252**	-0.780	-0.420	1.516
Set aside premiums	-937.9	-74.95	-6.634	-306.6	-1.977	36.62*	-63.51	-159.9	23.29	-31.21	-253.7	-78.67	-20.67
Other crops subsidies	2.393	-0.202	0.145	0.449	0.0575*	0.137	-0.265	-0.552	-0.317	0.480*	1.022	0.106	1.335**
Subsidies dairying	12.42**	1.812***	-0.116	1.466	-0.0357	0.0605	0.612	3.116**	0.385	-0.0607	5.252*	-0.445*	0.370
Subsidies other cattle	3.389	1.065***	-0.164	0.422	0.0605**	0.283	-0.961	0.726	0.406	0.383**	0.929	-0.487*	0.726***
Subsidies sheep & goats	-1.950	-3.314	-0.338	2.296	0.166	-2.699**	11.04	6.052	-1.517	-0.246	-14.04	2.978	-2.331
Other livestock subsidies	0.175	-0.834	0.155	-0.852	0.0824***	-0.0567	-0.128	0.0384	0.104	-0.351	2.045	-0.0110	-0.0178
Environmental subsidies	3.312	0.300	-0.206	1.624***	0.0117	-0.128	-0.254	1.226*	-0.535*	0.538***	0.401	-0.0655	0.401**
LFA subsidies	-9.570	-0.953	0.233	-2.240*	0.0333	-0.0892	0.0947	-3.568**	-0.611	-0.179	-1.947	0.511	-0.855*
Other rural development payments	24.46	-0.349	0.981	10.94**	-0.117	-0.531	0.319	8.083*	0.663	5.817**	-7.223	0.307	5.570**
Subsidies on intermediate consumption	10.78	0.621	0.179	2.173	0.166*	0.319	3.106*	-0.664	0.358	1.166**	3.260	-0.612	0.707
Subsidies on external factors	-17.89	-0.315	-0.497	-4.532	-0.406	-0.190	-1.022	-3.760	-0.448	0.435	-6.361	0.308	-1.104
Decoupled payments	0.440	0.225	0.00571	-0.102	-0.0155**	-0.00508	0.0334	0.0963	0.0618	-0.137***	0.287	0.0492	-0.0581
Additional aid	-314.0	-89.40**	8.480	-87.36*	-0.825	34.34	34.79	-124.7**	41.40	-27.28*	-42.52	-18.31	-42.64***
Support_Art68	-23.88	-2.253	-2.126	-3.133	-0.316**	-0.990	-6.983**	2.039	0.0664	-1.391	-6.123	-2.469*	-0.199
Other subsidies	-3.224	-3.041***	0.513	0.514	0.124**	-1.009	0.452	-0.761	-1.869**	0.195	1.636	0.372	-0.351
Constant	503.6***	74.33***	26.29**	91.93**	4.475**	3.031	84.22***	59.90**	-3.972	12.21	116.1**	38.85***	-3.823
Observations	242	242	242	242	242	242	242	242	242	242	242	242	242
R-squared	0.858	0.792	0.679	0.790	0.290	0.623	0.618	0.811	0.533	0.721	0.673	0.570	0.655



# Appendix 6i: Rural policy and sub categories of Cohesion policy



PERCEIVE  
PROJECT

GRANT AGREEMENT NUMBER 693529

Adam Cox, University of Portsmouth · Paweł Chmieliński, IAFE-NRI

PERCEIVE Final Conference



	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
VARIABLES	Total rural policy expenditure	Subsidies on investments SE406	Total subsidies - excluding on investments SE605	Total subsidies on crops SE610	Compensatory payments/area payments SE611	Set aside premiums SE612	Other crops subsidies SE613	Total subsidies on livestock SE615	Subsidies dairying SE616	Subsidies other cattle SE617	Subsidies sheep & goats SE618	Other livestock subsidies SE619
Structural characteristics index	-97.38	-6.743	-90.64	-5.985*	-0.746	-0.0172	-4.922	-21.41	-4.393	-20.41**	-1.850**	5.245
GDP PPS per inhabitant	-0.00110***	-5.63e-06	-0.00109***	-1.53e-05	-4.38e-06**	-5.12e-08	-9.90e-06	-2.79e-05	-6.82e-06	-2.78e-05	-1.84e-06	8.58e-06
Business support	0.504*	-0.000205	0.504*	-0.00342	0.00165	-1.00e-05	-0.00389	0.0245	0.0262**	0.0146	-0.000851	-0.0155
Energy	-0.127	0.0227	-0.150	-0.00940	0.00116	4.86e-05	-0.0104	-0.00343	-0.0179	-0.0186	-0.00138	0.0345
Environment and natural resources	0.102	0.0236	0.0780	0.0118	-0.00501*	-0.000142*	0.0163	0.00283	-0.000532	-0.00301	-0.00139	0.00776
Human resources	-4.250*	-0.417	-3.834*	-0.0137	-0.0106	-0.000283	0.00628	-0.203	-0.0126	0.123	0.0167	-0.330
IT infrastructure and services	-0.817	0.108	-0.925	0.0304	-0.0158*	-0.000181	0.0464	0.0883	-0.0170	-0.0230	-0.00728	0.136
Research and Technology	0.439**	-0.00327	0.442**	0.0270*	-0.00111	-1.53e-05	0.0279*	-0.0350	-0.00306	-0.0109	0.00170	-0.0227
Social infrastructure	-0.452**	-0.0108	-0.441**	-0.0319	0.00524*	0.000105	-0.0379	0.0771	0.0479*	0.0259	0.00135	0.00194
Technical assistance	-0.875	-0.127**	-0.748	-0.0832*	0.00728	8.86e-05	-0.0914*	-0.0555	-0.00142	0.0232	0.00281	-0.0802
Tourism & Culture	0.457	0.127	0.330	-0.0210	-0.00156	-1.64e-05	-0.0190	0.165	-0.00700	0.00626	-0.00120	0.167
Transport infrastructure	0.104*	6.21e-05	0.104*	-0.00145	0.000367	-2.14e-06	-0.00172	0.00689	0.00492*	0.00137	-0.000305	0.000900
Urban and rural regeneration	-0.712**	-0.0803*	-0.632**	-0.00553	-0.00897**	-0.000189**	0.00323	-0.176**	-0.0679*	-0.0798**	-0.00304	-0.0252
Other	0.000665	0.0317	-0.0310	0.252***	-0.0153**	-0.000280**	0.271***	-0.0287	0.0572	-0.0231	-0.00665*	-0.0561
Constant	142.0**	9.296	132.7***	5.082*	0.707	0.0153	4.067	23.59*	3.086	22.72***	1.311**	-3.518
Observations	242	242	242	242	242	242	242	242	242	242	242	242
R-squared	0.563	0.466	0.579	0.640	0.521	0.387	0.600	0.329	0.570	0.357	0.407	0.140



# Appendix 6ii: Rural policy and sub categories of Cohesion policy



PERCEIVE  
PROJECT

GRANT AGREEMENT NUMBER 693529

Adam Cox, University of Portsmouth · Paweł Chmieliński, IAFE-NRI

PERCEIVE Final Conference



VARIABLES	(13) Environmen tal subsidies SE621	(14) LFA subsidies SE622	(15) Other rural developmen t payments SE623	(16) Total support for rural developmen t SE624	(17) Subsidies on intermediat e consumptio n SE625	(18) Subsidies on external factors SE626	(19) Decoupled payments SE630	(20) Single Farm payment SE631	(21) Single Area payment SE632	(22) Additional aid SE640	(23) Support Art68 SE650	(24) Other subsidies SE699
Structural characteristics index	-2.799	-12.89	-0.527	-16.22	0.979	0.191	-39.05	-30.82	-7.972	-0.258**	-2.842***	-9.163
GDP PPS per inhabitant	-8.27e-05**	-3.06e-05	-3.77e-06*	-0.000117*	-4.43e-05*	-1.54e-05**	-0.000858***	-0.000859***	2.57e-06	-1.08e-06***	-3.74e-06	-1.55e-05
Business support	0.0249	0.0179	-0.00309	0.0397	0.0257**	0.00642**	0.418**	0.413**	0.00554	-0.000336	-0.00110	-0.00675
Energy	0.00224	0.0101	0.00311	0.0155	-0.0114	-0.00250	-0.133	-0.101	-0.0325	0.000295	-0.00461	-0.00541
Environment and natural resources	0.0208	0.0179	0.00159	0.0403	0.00823	0.00118	-0.00855	-0.0322	0.0236	-4.05e-05	0.000605	0.0222*
Human resources	-0.555	-0.535	-0.0451	-1.135	-0.0978*	-0.0390*	-2.300**	-2.365***	0.0687	-0.00386	-0.0117	-0.0449
IT infrastructure and services	0.0724	0.121	0.00989	0.203	-0.0813**	-0.0164**	-1.116**	-0.930**	-0.186	0.000633	-0.00984	-0.0342
Research and Technology	0.00951	-0.00815	-0.00189	-0.000537	0.0346***	0.00704***	0.378***	0.317**	0.0618**	-0.000128	0.00221	0.0310**
Social infrastructure	-0.0195	-0.0202	0.00273	-0.0370	-0.0316***	-0.00720***	-0.375***	-0.321**	-0.0541*	7.39e-06	-0.00261	-0.0353**
Technical assistance	-0.145**	-0.192**	-0.00179	-0.338**	-0.00993	-0.00126	-0.152	0.248	-0.400**	0.000173	-0.0120*	-0.108***
Tourism & Culture	0.163	0.196	0.0171	0.376	-0.00922	-6.39e-05	-0.200	-0.204	0.00258	0.00115	0.000532	0.0190
Transport infrastructure	0.00764*	0.00692	-0.000223	0.0143	0.00501*	0.00119*	0.0756**	0.0610*	0.0146	3.49e-07	0.000425	0.00224
Urban and rural regeneration	-0.0737**	-0.100**	-0.00528**	-0.179**	-0.0168	-0.00301	-0.201	-0.143	-0.0565	-0.000917**	-0.00982***	-0.0504*
Other	-0.0547	-0.0693	0.00144	-0.123	0.0121	0.00163	-0.164	-0.241	0.0782	-0.00180***	-0.00496	0.0186
Constant	7.424	10.69	1.150**	19.26	-0.165	3.866***	72.48***	67.37***	4.793	0.316***	2.259***	8.606**
Observations	242	242	242	242	242	242	242	242	242	242	242	242
R-squared	0.437	0.452	0.408	0.442	0.662	0.702	0.624	0.563	0.857	0.429	0.621	0.715



# Thank you.

Adam Cox

University of Portsmouth

---

Paweł Chmieliński

IAFE– NRI

PERCEIVE Final Conference  
June 19<sup>th</sup> 2019 · Brussels



**@perceiveproject**  
**#perceiveproject**



PERCEIVE  
PROJECT

GRANT AGREEMENT NUMBER 693529