



5G Rural Integrated Testbed

D9.6 Interim Final Report

Dissemination and Networking

Acronym: 5GRIT

Full Title: 5G Rural Integrated Testbed

Coordinator: Cybermoor

Project Duration: 04/2018 - 03/2019

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1 Introduction

The 5G Rural Integrated Testbed project (5GRIT) is one of six projects funded by the Department for Digital, Culture, Media and Sport on the 5G Testbeds & Trials Programme. Throughout the project, partners have added details to the project dissemination report on the various events and conference at which they have presented 5GRIT and promoted its work, as well as the articles published about the project. In addition to the dissemination report, also included are examples of newspaper articles, and a report detailing the academic papers and abstracts that have been submitted to conferences.

Dissemination will continue throughout the project extension with a clear PR plan to publicise the results achieved on the 5GRIT project. There will be a showcase event held at the end of the project in September to present the project work and findings.

Dissemination report

Date	Partner	Event name	Type of activity	Place of activity	Summary	Audience	Comments
10/4/18	CYB	OECD Rural Conference	Workshop on UAS and 5G potential	Edinburgh	Presentation to senior policy makers from OECD countries.	150	Follow up interest from Orkney islands, passed to BB
9/5/18	CYB	INCA 5G Event	Presentation	Milton Keynes	Presenting 5G to businesses and Local authorities	80	5G Rural First also presented
25/4/18	ALL	5G Testbeds Onboarding Event	Presentation & workshops	London	Presenting 5GRIT	130	

14/5/18	CYB	Cumbria County Council Borderlands team	Presentation	Carlisle	Presenting 5GRIT	4	
12/6/18	KCL	5G Wireless Summer School	2 hours presentation/tutorial/lecture	Edinburgh	To a range of PhD student, researchers, and industrialists. "Radio Spectrum Sharing and Regulatory Opportunities for 5G"	30	Nokia, Ericsson and others also presented. Event was created/funded by an EU H2020 5G project.
24/5/18	KCL	IEEE Tactile Internet Standards Working Group (IEEE 1918.1) Meeting	Standards development meeting	Kansas City, MO, USA	Chairing the meeting (KCL is Chair of the standards effort), guiding proceedings, various presentation therein as part of the Chairing	15	Not funded by 5GRIT but still helpful from a 5GRIT perspective re. keeping tabs on latest developments
24/5/18	KCL	IEEE Mobile Communication Networks Standards Committee (MobiNet-SC) Meeting	Standards development meeting	Kansas City, MO, USA	Chairing the meeting (KCL is Chair of the standards committee), guiding proceedings, various presentation therein as part of the Chairing	10	Not funded by 5GRIT but still helpful from a 5GRIT perspective re. keeping tabs on latest developments
23-25/6 /18	KCL	IEEE Dynamic Spectrum Access	Standards development meeting	Rome, Italy	Chairing the meeting (KCL is Chair of the standards committee),	10	Not funded by 5GRIT but still helpful from a

		Networks Standards Committee (DySPAN-SC) Meeting			guiding proceedings, various presentation therein as part of the Chairing		5GRIT perspective re. keeping tabs on latest developments
23-25/6 /18	KCL	IEEE Spectrum Sensing Standards Working Group (IEEE 1900.6) Meeting	Standards development meeting	Rome, Italy	Chairing the meeting (KCL is Chair of the standards committee), guiding proceedings, various presentation therein as part of the Chairing	6	Not funded by 5GRIT but still helpful from a 5GRIT perspective re. keeping tabs on latest developments
8-13/6/ 18	KCL	IEEE 802, IEEE 802.22, IEEE 802.19, 802.24 Standards Working Group and Committee Meetings	Standards development meeting	San Diego, CA, USA	Chairing the meeting (KCL is Vice-Chair of the standards committee), standing in due to unexpected travel problems of Chair. 802.22 is TV white space radio interface standard, 802.19 is coexistence (including TV white space as a topic therein)	50	Not funded by 5GRIT but still helpful from a 5GRIT perspective re. keeping tabs on latest developments
10/8	CYB	5GUK - 5G in transport & logistics	webinar	Online			2 attendees

10/8	CYB	5GUK - 5G in manufacturing	webinar	Online			2 attendees
05/09	CYB	UK: Current and emerging threats of terrorism"	webinar	Online			1 attendee
20/07	CYB	Cumbria to Host 5G Testbed	article	online	Article published on IoD North West about 5GRIT and Testbed opportunity/event		
28/08	AONB	Meet local business converting High Mill to discuss making digitally accessible to tourists	meeting	Alston	Communicating possibility of digital interpretation to local business	future tourists	2 attendees
01/09	AONB	Talk to Assoc of Industrial Archaeologists, annual conference, Nottingham Uni	conference speech	Nottingham Uni	Communicating benefits of digital interpretation to potential stakeholder/ opinion former group	future collaborators/ visitors	160 attendees

13/09	CYB	LCV Cenex 2018	Exhibition	Millbrook Proving Ground			1 attendee
12/09	KU	UK engineers to trial 5G-enabled drones for smart farming	Article	online	Article published on The Engineer about Kingston University's work on UAS/agriculture use case.		
12/09	AONB	Nenthead Mines Conservation Society	Meeting	Nenthead Mines	Discussion on how digital interpretation could add value to visitors	Local tourist business/ visitors	6 attendees
13/09	KU	New trial looks at how 5G could power drones to monitor fields	Article	online	Article published on 5G.co.uk Kingston University's work on UAS/agriculture use case.		
18/09	AONB	Local digital design companies	Meeting	Northern Design Centre, Gateshead	Discussion on how digital interpretation design could add value to visitors and involve local digital design companies	Local digital design businesses	6 attendees
24/09	KU	Kingston University exploring 5G	Article	online	Article published on Commercial Drone Professional about		

		tech to give farmers eye in the sky as part of 2m Government project			Kingston University's work on UAS/agriculture use case.		
25/09	AONB	Local historic archive photography	Meeting	Alston	Discussion with Historic Photography Archivist on how digital interpretation could give access to community assets and add value to visitors to Alston	Community and visitors to that community	2 attendees
26/09	AONB	Local History	Meeting	Alston	Discussion with local historian on how digital interpretation could give access to community assets and add value to visitors to Alston	Community and visitors to that community	2 attendees
27/09	AONB	Local tourism attraction	Meeting	Allenheads	Discussion with local mines historian on how digital interpretation could give access to community assets and add value to visitors to Allenheads attractions/businesses	Community and visitors to that community	2 attendees

28/09	AONB	Local tourism attraction/ walkers route	Meeting	Ninebanks	Discussion with historian and residents on how digital interpretation could give access to community assets and add value to v Ninebanks	Community and visitors to that community	6 attendees
	KU		Articles	online	TM Forum Scottish Farmer Farming Sector Disruptive Asia Nyoooz (India) Alpha Galileo		
11/7/18	CYB	Cumbria LEP	Event	Kendal, Cumbria	Presenting 5G to delegates	SMEs and policy makers	30 attendees
01/09	CYB/LU /KU	Alston Sheep Show	Event	Alston, Cmbria	Presenting and discussing 5GRIT and it's agricultural use cases with local farmers	Hill sheep farmers	
03/10	AONB	Nenthead Mines interpretation	Meeting	Nenthead	Briefing mines volunteer on how digital interpretation could benefit visitors to mines	Visitors to local attraction	2 attendees
05/10	AONB	Local school involvement	Meeting	Samuel Kings School, Alston	Discussion with headteacher and ICT teacher on how to	Young people within local community	3 attendees

					involve local school in digital project		
11/10	AONB	Historian and Parish Councillor meeting	Meeting	Alston	Discussion on how to involve local community in digital project	Community and future visitors	3 attendees
25/10	AONB	Churchwarden and Parish Councillor meeting	Meeting	Ninebanks	Discussion on how to involve local community in digital project	Community and future visitors	5 attendees
08/09	CYB	5G EV chargepoint Launch	Event	Alston Greenprint, Cumbria	Presentation demo on EVs	residents, Greenprint attendees	
31/10	CYB	UK Wide Infrastructure & Investment Conference	Event	Westminster	Panel on Digital infrastructure	infrastructure Investors	20 attendees
2/11	AONB	School engagement	Workshop	Samuel King's School, Alston	Taking the Year 6 ICT through the design process of creating their own app	Local community	
6/11	CYB	INCA Conference	Event	London	Panel on 5G	Telecoms companies	100 attendees
5/11	BP	INCA Conference	Event	London	Presentation at Rural workshop	Telcos, communities	65 attendees

9/11	AONB	School engagement	Workshop	Samuel King's School, Alston	Taking the Year 6 ICT through the design process of creating their own app	Local community	
16/11	AONB	School engagement	Workshop	Samuel King's School, Alston	Taking the Year 6 ICT through the design process of creating their own app	Local community	
21/11	CYB	Global MBB	Event	Online		Telecoms companies	
22/11	AONB	Geoparks' conference	Presentation at conference	Bilbao	Presentation on benefits off digital interpretation in creating experiences for tourists	Geopark community	24 attendees
23/11	AONB	School engagement	Workshop	Samuel King's School, Alston	Taking the Year 6 ICT through the design process of creating their own app	Local community	
28/11	CYB	Wired Cumbria- 5G What's it all about?	Workshop on potential of rural Work5G	Penrith	5G Workshop by 5GRIT and Wired Cumbria to business and community members of Cumbria.	Cumbrian business/tech companies	
30/11	AONB	School engagement	Workshop	Samuel King's School, Alston	Taking the Year 6 ICT through the design process of creating their own app		

3/12	AONB	Alston Moor Parish Council Meeting	Presentation	Alston	Presentation and discussion on how to involve local community in digital project	Local community and future visitors	30 attendees
11/1	AONB	Tourism business meeting	Meeting	Alston	Meeting with local tourism business owner - Epiacum - to explain project and seek future involvement.	Local community and future visitors	2 attendees
25/1	AONB	School presentation	Presentation	Alston	Presentation on project to local school	Local community	20 attendees
7/2	AONB	Nentheads Mines future plans	Discussion	Nenthead	Meeting with head of local tourism attraction - Nenthead Mines - to seek future involvement.	Local community and future visitors	2 attendees
11/2	AONB	Alston Moor Parish Council Meeting	Presentation	Alston	Update on projects to Parish Council	Local community	30 attendees
12/2/19	WAM, NPAON B,CYB	WAM over 5G launch event	Press conference	Alston town hall	Presentation to regional and national press.	14	Articles in Daily Mail and regional press. Daniel's Video interview on TV. (See below)

8/3	AONB	Display meeting	Meeting	Alston Library	Meeting to demonstrate VR and agree display in local Tourist Information Centre	Local community and future visitors	4 attendees
22/03	CYB	5G Workshop, Opportunities in Northumberland's Rural Economy	Workshop	Northumberland	Presentation to Northumberland businesses about 5G and opportunities to trial new apps and ideas on the testbed.	22	
25/03	CYB	The Future of 5G in Rural Areas	Workshop	Lincoln	Presentation to Lincolnshire and Humber businesses about 5G and opportunities to trial new apps and ideas on the testbed.	12	
25/03	BBSR		Press release	sUAS News	Announcing the 5G enabled BVLOS test site		Article
10-11/04	5GRIT partners	5G Realised	Conference	London	UK5G event. 5GRIT stand to showcase the project's achievements. 5GRIT partners also contributed to panel discussions.		

Newspaper Publications



5GRIT / WAM featured in Big Issue North and The Daily Mail among other publications in February

Publications Report

Date	Partner	Author	Title	Type	Summary
Oxford, 29-30 April	Kingston University	Hamideh Kerdegari, Manzoor Razaak, Vasileios Argyriou, Paolo Remagnino	Semi-supervised GAN for Multispectral Image Classification	Abstract paper, Accepted at DISP2019 Conference	This paper summarizes our idea on semi-supervised GAN algorithm for multispectral image classification in the form of abstract paper.
Sweden, 11-13 June	Kingston University	Hamideh Kerdegari, Manzoor Razaak, Vasileios Argyriou, Paolo Remagnino	Multispectral Image Classification using Semi-Supervised GAN	Full paper, Submitted to SCIA2019	This full paper includes our full implementation and experiments with our semi-supervised GAN.
Enlightening the Future: 35th EGOS Colloquium, July 4-6th 2019, Edinburgh, UK.	Lancaster University	Katy Mason Teea Palo	The processes of knowledge circulation in distributed and decentralised technological innovation project: The case of 5GRIT	Academic Social Science paper: Abstract	This paper takes the Technology Readiness Levels (TRL) model and looks at how it is 'put to work' to unfold a distributed and decentralised network of co-ordinated, collaborative innovations likely to generate markets for 5G technologies.
SASE Research Network and Mini-Conference	Lancaster University	Katy Mason Teea Palo	Imagining Markets for 5G Technologies: Framing and Evaluating a Government Funded Research Project	Academic Social Science paper: Abstract	This study looks at the future making efforts of the UK Government as they seek to make a UK-based market for '5G' – the 5th generation of cellular mobile communications.

June 27-29th 2019, The New School, New York, USA				
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