

Evaluating the interaction of Environmental, Social and Governance (ESG) and Sustainable Development Goals (SDGs) in the Space Industry

Supervisors: [Professor Leslie Budd](#) Department of Public Leadership and Social Enterprise, the Open University Business School and [Dr Vic Pearson](#) and [Dr Manish Patel](#), School of Physical Sciences

Project Description:

The [Sustainable Development Goals](#) are a call for action for nations to promote prosperity and reduce inequalities in ways that protect the planet. They recognize that ending poverty must go hand-in-hand with strategies that build economic growth and address a range of social needs including education, health, social protection, and employment opportunities. The SDGs are also adopted by many international organisations, who recognise the part they play in facilitating a sustainable future. For example, the European Space Agency have a stated commitment to the SDGs and 'managing global challenges/SDGs' are one of the projected benefits of its human and robotic exploration strategy.

Environmental, Social and Governance (ESG) is a concept and practice associated with corporate governance in which private firms seek to increase the value of their activities and contribution to society beyond narrow financial criteria. ESG factors thus play a significant role in how the SDGs are addressed and evaluated in many industries, particularly space. Conforming to ESG objectives also attracts socially conscious investors as well as demonstrating firms' increasing commitment to extending and deepening Corporate Social Responsibility (CSR) strategies

The global space industry is forecast to grow to \$1.5trn by 2030 with commercial applications constituting a significant part. Consequently, the importance of space associated ESG grows as it is becoming critical to how every firm operates and contributes to SDGs in Earth and space environments. Furthermore, an assessment of ESG can provide an indicator of the breadth to which an organisation is able to contribute to meeting the SDGs and delivering a better, fairer future for all.

This project builds upon the expert capabilities and capacities of the Space Exploration and Analysis ([SPEAR](#)) research cluster. It uses the case study of the SaxaVord spaceport, Shetland to evaluate socioeconomic benefits in the context of the growing importance of the Scottish satellite industry. A Multi-Criteria Analysis (MCA) methodology will be applied to evaluate the value-added of a number of community resources that may then contribute to realising to ESG and SDG objectives and potential outcomes. The identification of these resources is based on an application of Pierre Bourdieu's, the French anthropologist and sociologist, theorisation of economic capitals. A particular focus will be on the development of environmental capital, nested within an identification and evaluation of contingent capitals (political, financial, organisational, social etc) as a result of the development of the spaceport.

The student will review the use of the capitals approach in evaluation studies in both space and non-space contexts. They will choose and define the appropriate capitals to buttress environmental capital and with which to evaluate socio-economic benefits with respect to the Shetland spaceport and the growing satellite industry.

About the Supervisors:

Professor Leslie Budd is Professor of Regional Economy Department of Public Leadership and Social Enterprise, Director of SPEAR in the Faculty of Business and Law and Technical Lead of the [ESA Exploration Roadmap in Socioeconomics \(BEERS\)](#) study.

Dr Vic Pearson is Senior Lecturer, School of Physical Sciences, a leading member of SPEAR and Associate Director of [AstrobiologyOU](#). She leads a pathfinder study into the socioeconomic benefits of SaxaVord spaceport, Shetland.

Dr Manish Patel is Senior Lecturer, School of Physical Sciences (Head Space Instrumentation discipline). He is a leading member of SPEAR and is Co-PI of the NOMAD instrument on ESA's ExoMars mission.

All supervisors have significant experience in supervising PhD candidates to completion.

References:

Bourdieu, P (1985) *Distinction: A Critique of Taste*, Oxford: Oxford University Press.

European Commission (2016) Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions *Space strategy for Europe* COM(2016) 705 final, Brussels; European Commission.

London Economics (2016) *Development of the Scottish Space Industry* London Economics, London

London Economics (2019) *Size & Health of the UK Space Industry 2018. A Report to the UK Space Agency*, London Economics, London

Morgan Stanley *Five New Themes in the Space Economy* New York; Morgan Stanley
<https://www.morganstanley.com/ideas/space-economy-themes-2021>

Nussbaum, M. (2011). *Creating Capabilities: The Human Development Approach*. Cambridge, MA: Harvard University Press

OECD (2012) *OECD Handbook on Measuring of the Space Economy*, Paris; Organisation for Economic Co-operation and Development, p.9.

Rainbow J. (2021) Space and the new ESG business climate *Space News* 21 April
<https://spacenews.com/space-and-the-new-esg-business-climate/>

Salter, A.J. and Martin, B.R. (2001) The economic benefits of public funded research: a critical review, *Research Policy*, vol. 30, 509-532.

Thomas, M.P. and McElroy, M.W. (2016) *The Multi-Capital Scorecard: Rethinking Organizational Performance*, Vermont: Chelsea Green Publishing.

Upper Quartile (2016) *UK Vertical Launch: Feasibility Study*, prepared for Highlands and Islands Enterprise, Glasgow: Upper Quartile.