

The Snowball Metrics Landscape

	Research Inputs	Research Processes	Research Outputs and Outcomes
Research	Research applications Research awards <ul style="list-style-type: none"> • Price / overhead recovery • Philanthropy 	Research income <ul style="list-style-type: none"> • Space utilisation • Staff recruitment • Start / end date slippage 	Publications & citations Collaboration (co-authorship) Esteem measures <ul style="list-style-type: none"> • Socio-economic impact
Enterprise Activities/ Economic Development	Industrial income <ul style="list-style-type: none"> • Industry engagement 	<ul style="list-style-type: none"> • Industry research income 	Patenting Licensing income Spin-out generation / income <ul style="list-style-type: none"> • KTPs numbers • Consultancy income
Post-Graduate Education	PGR volumes <ul style="list-style-type: none"> • PGT volumes • International PGT volumes • UG to PG conversion rates 	Post-Graduate experience <ul style="list-style-type: none"> • Facilities 	Completion rates <ul style="list-style-type: none"> • Alumni / destination of leavers • Skills development (impact)
Denominators <ul style="list-style-type: none"> • “Slice and dice” • Normalize for size 	(Number of) People <ul style="list-style-type: none"> • Researcher, authors • Principal / co-investigators • Academic staff by category • Research assistants • PGR Students • UG / PGT Students • Post-doctoral staff • Support staff 	Organizations <ul style="list-style-type: none"> • Institution • Faculty / department • Cost Centre • Groups / clusters • Funders by type • Centres / institutes 	Themes / Schemes <ul style="list-style-type: none"> • Standard grants • Strategic initiatives (Calls) • Grand Challenges • Subject areas • Keywords

Snowball Metrics recipes

	Research Inputs	Research Processes	Research Outputs and Outcomes
Research	<ul style="list-style-type: none"> • Applications Volume • Awards Volume • Success Rate 	<ul style="list-style-type: none"> • Income Volume • Market Share 	<p>Publications & citations</p> <ul style="list-style-type: none"> • Scholarly Output (enhanced) • Citation Count • Citations per Output • <i>h</i>-index • Field-Weighted Citation Impact • Outputs in Top Percentiles • Publications in Top Journal Percentiles <p>Collaboration</p> <ul style="list-style-type: none"> • Collaboration • Collaboration Publication Share • Collaboration Impact • Collaboration Field-Weighted Citation Impact • Academic-Corporate Collaboration • Academic-Corporate Collaboration Impact <p>Societal impact</p> <ul style="list-style-type: none"> • Altmetrics • Public Engagement • Academic Recognition
<div style="border: 1px solid black; padding: 10px; background-color: #e0f2f1;"> <ul style="list-style-type: none"> Snowball Metrics shared in original Recipe Book, November 2012 Snowball Metrics shared in edition 2 of the Recipe Book, June 2014 Snowball Metrics shared in this edition of the Recipe Book, November 2017 </div>			
Enterprise Activities/ Economic Development	<ul style="list-style-type: none"> • Academic-Industry Leverage • Business Consultancy Activities 	<ul style="list-style-type: none"> • Contract Research Volume 	<ul style="list-style-type: none"> • Intellectual Property Volume • Intellectual Property Income • Sustainable Spin-Offs (enhanced) • Spin-Off-Related Finances (enhanced)
Post-Graduate Education	<ul style="list-style-type: none"> • Research Student Funding 	<ul style="list-style-type: none"> • Research Student to Academic Staff Ratio 	<ul style="list-style-type: none"> • Time to Award of Doctoral Degree • Destination of Research Student Leavers

The Snowball Metrics Exchange will enable everyone using Snowball Metrics standards to benchmark themselves against each other.

Overview of the flow of information within the Snowball Metrics Exchange service

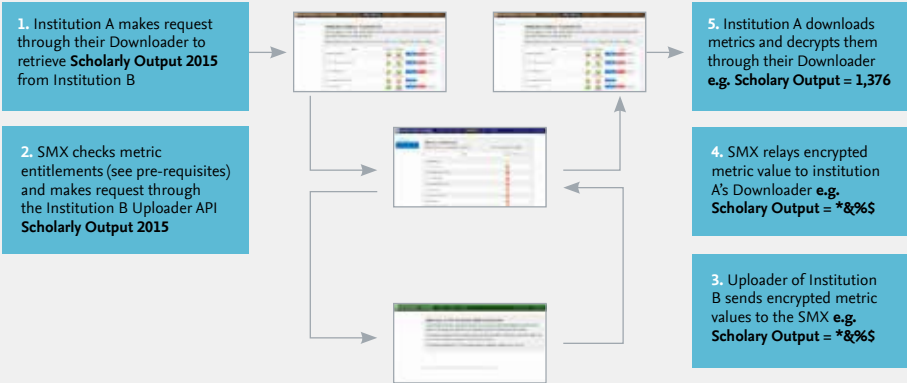
The Snowball Metrics Exchange service = Uploader + SMX + Downloader

Pre-requisites:

Institutions A+B have added metric values to the Uploader e.g. **Institution B - Scholarly Output 2015 = 1,376**

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Institutions A+B have agreed to share encrypted metric values and have set up entitlements in the SMX



Funder-type: UK application

Snowball Metrics denominator	Constituent HESA Funder Types	Further Breakdown for Snowball Metrics
Research Councils	Research Councils, Royal Society & British Academy	<ul style="list-style-type: none"> • AHRC • BBSRC • EPSRC • ESRC • MRC • NERC • STFC • British Academy • Royal Society
UK Charity	<ul style="list-style-type: none"> • UK-based Charity (QR Eligible for Charities Support) • UK-based Charity (NOT QR eligible) 	
UK Public Sector	UK central government bodies/ local authorities, health & hospital authorities	
UK Industry	UK industry, commerce & public corporations	
Overseas Industry	<ul style="list-style-type: none"> • EU industry, commerce & public corporations • Non-EU industry, commerce & public corporations 	
EU Government	EU government bodies	European Commission Other EU government bodies (in aggregate)
Other Overseas Sources	<ul style="list-style-type: none"> • EU-based charities (QR Eligible for Charities Support) • Non-EU-based Charity (QR Eligible for Charity Support) • EU other • Non-EU other 	
Other Sources	Other sources	

Funder-type: US application

Group	Group description	Abbrev.	Class	Class description
Government	All federal grant-making institutions and selected state or other (local) government agencies	govfed	Federal / national government	Governmental bodies on a national level (national governments and national governmental departments)
Government		govnon	Government Non-federal	Governmental bodies on a non-national level (departments of states, cities, et cetera)
Private	all private foundations providing research funding; either corporate, family or other type of philanthropic giving	founda	Foundation	Every funding body named 'foundation'
Corporate	Corporations providing research grants and contracts	corpor	Corporate	(Large) cooperations, often only fund research 'on the side'
Other	International, non-governmental organizations (NGOs), other non-profits	academ	Academic	Universities, colleges – internal funding
Other		assoc	Professional Associations and Societies	Every association or society of professionals in a field (including associations/societies of academic professionals)
Other		intern	International	All other funding bodies, not residing in one specific country (without headquarters, or with multiple headquarters in several countries)
Other		othern	Other Non-profit	All other funding bodies

Funding-type: UK application

Snowball Metrics	Constituent HESA Funding-Types
No award or financial backing	No award or financial backing
Institutional waiver of support costs	Institutional waiver of support costs, including university scholarships or awards of current institution (from HESA notes)
UK & Islands Government Bodies	<ul style="list-style-type: none"> • Local Government - Channel Islands & Isle of Man/Scottish FE Bursaries • Departments of Health/NHS/Social Care • Departments of Social Services • Department for Business, Energy and Industrial Strategy (BEIS; formerly the Department of Business, Innovation and Skills) • Other HM government departments/public bodies • Scholarship of HM forces • Scottish Enterprise Network/Highlands & Islands Enterprise/ Local Enterprise Companies (LECs) • LEA training grants scheme • Department of Agriculture & Rural Development for Northern Ireland (DARDNI) • Scottish Local Authority - discretionary award • Overseas student award from HM government/British Council • Department for International Development
Research Councils & British Academy	<ul style="list-style-type: none"> • British Academy • Biotechnology & Biological Sciences Research Council (BBSRC) • Medical Research Council (MRC) • Natural Environment Research Council (NERC) • Engineering & Physical Sciences Research Council (EPSRC) • Economic & Social Research Council (ESRC) • Arts & Humanities Research Council (AHRC) • Science & Technology Facilities Council (STFC) • Research council - not specified

