

Making the world's waste visible, verifiable & valuable

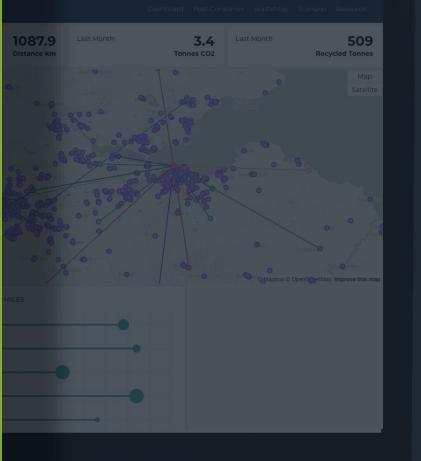
Our mission: to be the leading waste analytics business for waste producers, the waste industry and government.

What we do

Topolytics' WasteMap® platform ingests data on waste types, amounts and movements, at scale. It then cleans and analyses the data to identify patterns and insights that can drive efficiencies, improve compliance, reduce environmental impact and improve reporting.

As a business, we draw in data on individual movements of material from companies, organisations and households – across the waste supply chain – the resulting modelling and analysis generating valuable insights for individual customers – be they waste producers, recyclers or government.

WasteMap can ingest data from third party systems in CSV or spreadsheet form, direct from software or via real time sensor systems such as bin weighing, machine vision, bin fill, smart labels.



WasteMap®



Topolytics is creating a 'digital twin' of corporate, city, national and the international wate system – unlocking value for waste producers, recyclers, investors and governments.



Our position

We are a leading AI & analytics player in the fast growing \$2bn smart waste market





Our unique proposition

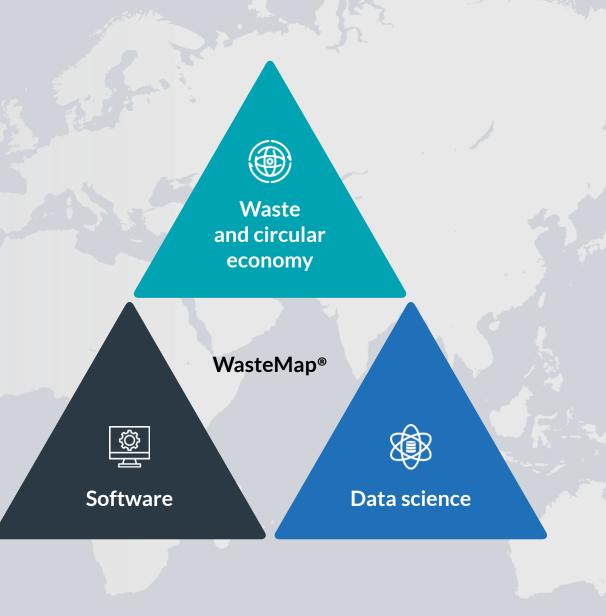
Our analytics platform WasteMap® uses mapping and machine learning to make waste and resource management more transparent, more efficient and more effective commercially and environmentally.

We do this for:

Large enterprises such as product companies that generate operational or post-consumer waste.

Waste recyclers and brokers that do something to this waste.

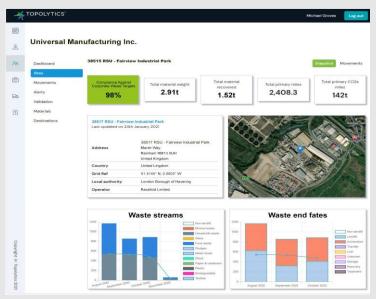
Governments and cities that are responsible for regulating waste and creating circular economy policies.



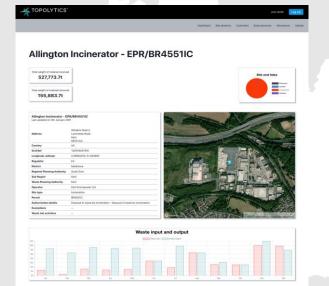




Producers



Processors



Government

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Alerts						View All	
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Date	EWC Code	Description	Waste Type	Status	Notifica	tions	
28 March 2020, 11:28	12 34 56	Unauthorised material acceptance	Clothes	New O	1 Notific	ation	
28 March 2020, 10:12	23 56 76	Unauthorised material acceptance	Textiles	New O	2 Notific	ations	
28 March 2020, 09:12	98 34 54	Mass balance threshold exceeded	All Waste	New 0	3 Notific	ations	
27 March 2020, 16:58	50 67 14	Storage limit exceeded for EWC codes	Plastic	New 0	2 Notific	ations	
27 March 2020, 15:34	84 25 43	Hazardous waste transfer. 30 Mar 2020. 15:34	Automotive Wa	stes New O	1 Notific	ation	



t March • 2020 •
% difference
+7.2%
+6.3%

TOPOLYTICS



IDC > Products & Services > Subscription Services > European Technology for Sustainability and ...



Deploy Waste Map as the basis for the UK Government's mandatory digital waste tracking system

Winner'Best Technology Innovation' 2020 UK National Recycling Awards

Winner Circular 2030 competition organized by Google Cloud and SAP – chosen from 250 companies worldwide as commercial, scaleable technology that can enable the circular economy.

Winning Connected Cities Award at 2020 Digital Leaders Impact Awards

TechNation Net Zero Growth Program as leading UK tech company creating a more sustainable future

Plastic Data Challenge finalist in Singapore, advancing pilot opportunities in South-East Asia

WinnerWaste 2020 Competition, StartUpX, Singapore

Delivering COP26 waste insights project for SAP and leading consumer product companies.



European Technology for Sustainability and Social Impact

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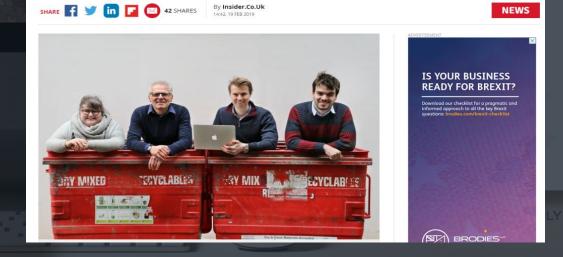
Companies Covered

A.T. Kearney Limited, ABB Ltd., AT&T Inc., Accenture plc, Amazon Web Services Inc., Apple Inc., Atos SE, BT Group plc, Canon Inc., Capgemini Services SAS, Cisco Systems, Inc., Dell Inc., Deloitte LLP, Deutsche Telekom AG, Equinix Inc., Ernst & Young Global Limited, Globechain (UK) Limited, Google LLC, HP Inc., Hewlett Packard Enterprise, Huawei Technologies Co., Ltd., IBM, KPMG International, Konica Minolta Holdings, Inc., LG Corp., McAfee LLC, Microsoft Corporation, Motorola Solutions, Inc., Oracle Corporation, Orange S.A., PricewaterhouseCoopers LLP, Rackspace Technology Global, Inc., Ricoh Company, Ltd., SAP SE, Sage Group plc, Salesforce.com, Inc., Samsung, Schneider Electric SE, ServiceNow, Inc., T-Systems International GmbH, Tata Consultancy, Services Limited, Tieto Corporation, Topolytics, Transparency-One, Vertiv Co., Vodafone Group Plc, Wipro Limited, Xerox Corporation, iFixit

News > Environment

Data analytics firm builds Ordnance Survey map of all the rubbish Britain produces in a year

Eco-friendly Edinburgh tech business is challenged by DEFRA to create tool that maximises use of waste materials



Meet the core team

The team has a powerful mix of experience from the waste and recycling industry, compliance, circular economy, software development, product development and data analytics.



Dr Michael Groves Founder & CEO PhD in remote sensing 30 years in environment & sustainability 4 start ups, 1 exit

https://www.linkedin.com/in/michaelant honygroves/



Ben Emson Chief Technology Officer Head of O2's Lab Lead developer 'WhereonEarth' mapping platform (bought by Yahoo) 15 years software architecture & development

https://www.linkedin.com/in/emson/



Jane Stewart NED Qualified CA VC - SEP & Baird Capital 13 years CFO & Head of strategy for recycling business - from \$25m to \$250m exit

https://www.linkedin.com/in/janestewart-35a6bb64/



Mick Lloyd Chief Product Officer Head of Product Management – Craneware – leading US hospital revenue system (listed on LSE) Worked across Product and COO roles in tech startups

https://www.linkedin.com/in/michaelpdll oyd/

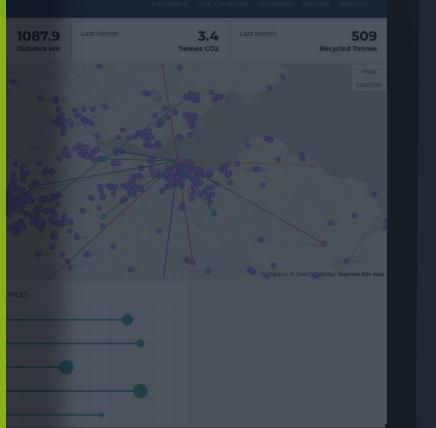


Waste Map[®] Making a difference across the waste & materials value chain



Key benefits

- Identify patterns in large datasets that unlock efficiencies and support compliance
- Quantify carbon emissions and environmental impacts
- Feed environmental and sustainability reports
- Enhance customer engagement
- Identify sources of material and support sales and marketing





Challenge:

Reduce the risks, define the impact and realise the value of commercial, industrial and post-consumer waste.

Our solution:

Support **compliance** with external requirements - more stringent requirements on waste producers to demonstrate responsibility for their waste and demonstrate knowledge of what happens to this material.

Improve **operational efficiency** and reduce the resources required to manage reporting from contractors and the associated data required to support carbon strategies, compliance, reconcile waste management costs vs actual activity and generate insights that can drive greater recovery of waste material.

Support carbon reduction work. Recognising that the volume of waste, its movement and how this material is handled is a factor in overall carbon emissions.

Add value to **reporting** and **transparency** - internal or external.



Customers

Manufacturers and product companies (some of whom reuse recycled material)



Waste Map[®] Mapping & predicting waste flows

Live map of industrial and post-consumer waste flows

Identify waste miles and outcomes

Identify options for system interventions to improve recovery rates

Identify options for material and cost efficiencies

Customers

Consumer product & packaging companies

Partners



Showcase will demonstrate the power of innovative technologies in unlocking value from over nine billion tonnes of waste produced





Challenge:

Create a mandatory digital reporting system for all (100's million) waste movements in the UK (defined in the Environment Bill 2020)

Why – reduce waste crime, enable smarter regulation, drive greater resource recovery, support policy making.

Our solution:

Build a data driven waste tracking system around WasteMap®

Waste Data Account - enables easy uploading of waste movement data

WasteMap[®] – ingests, cleans, processes and reconciles data from all waste companies and different formats – spreadsheets, databases, APIs

Agency Manager – dashboard for each UK regulator (England, Scotland, Wales, Northern Ireland). Shows alerts/notifications, details on every waste movement

Worked with data from 35 waste producers (transport, retail, manufacturing, construction etc), recyclers, brokers, waste mngt software

Real time data from PragmatIC – RFID labels for tracking waste tyres

Customer

Department for Environment, Food & Rural Affairs (and all UK environmental regulators

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	98 34 54 50 67 14	Mass balance threshold exceeded Storage limit exceeded for EWC codes	All Waste Plastic	New Ø		



Vaste Anomalies	View All	Waste Movements	View Al
New Producers	March • 2020 •	Waste In & Out	March • 2020 •
No Site Name	Volume	No Site Name	% difference
1. Company A	1200	1. Company F	+7.2%
2. Company B	980	2. Company G	+6.3%

Partners



Collaborating with PragmatIC on the UK government waste tracking project

PragmatIC printed and attached smart labels to a selection of tyres

Topolytics created a direct link (API) from the PragmatIC data capture system into the regulator's dashboard

PragmatIC scanned each label and the data registered in the dashboard in real time

This showed location, ownership, tyre type, time and other key information

Waste tracking TOPOLYTICS Pragmatic



- 40M used tyres per year in UK
- UK Government funded project in partnership with the Tyre Recovery Association UK
- Digital tracking data allows deeper analyses of how tyres are processed as waste
- UK Government mandating digital waste tracking

Create more

Customer

Department for Environment, Food & Rural Affairs (and all UK environmental regulators)



Waste Map[®] Processing and analysing bin sensor data

Bin fill sensors deployed across City of Edinburgh

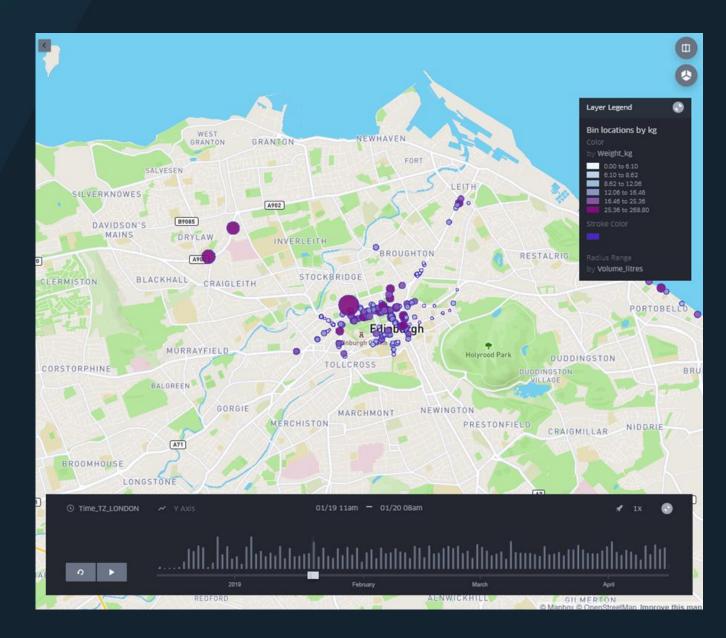
Analysed data from the sensors showing bin weights and speed of fill

Insights enabled better siting of bins

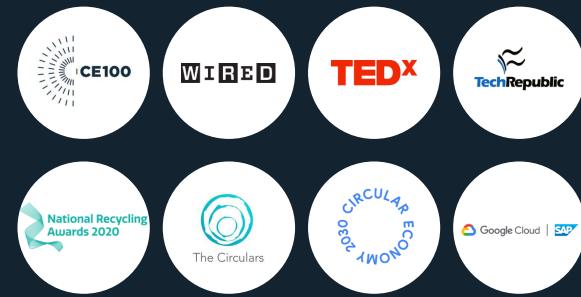
Identified anomalies and data quality

Customer

City of Edinburgh Council







"CSI meets Cicero... brilliant in its simplicity."

