

The background is a vibrant blue with several large, overlapping circles in teal, pink, red, and orange. The ODI logo, consisting of a white circle and a white vertical bar, is positioned at the top left. The main text is in a large, white, sans-serif font.

ODI Strategy 2018 → 2022



Photo: ODI Co-founders Sir Nigel Shadbolt and Sir Tim Berners-Lee at the ODI Awards 2015

ODI Strategy

2018

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When we founded the Open Data Institute in 2012, we envisioned an independent, not-for-profit institution that would show the value of open data.

At that time, governments were publishing open data in increasing quantities. We saw the need for both improving the quality of that publication and getting more startups and established businesses to use it.

The ODI has surpassed our expectations. It has trained and helped governments around the world, from Mexico to Malaysia, to adopt open data. It has supported the growth of dozens of startups, creating jobs and social impact, through its challenges and accelerators. It has catalysed change in sectors from agriculture to finance and conducted research in fundamental topics such as data search and the skills needed for data science. It has created

international networks of partners, members and nodes that help it achieve its mission.

Over the last five years, the ODI has also moved with the times. It is clear that while open data is the foundation for a strong data infrastructure, other forms of access are needed for more sensitive and personal data. The challenges of retaining trust in data use have come to the fore with the resurgence of Artificial Intelligence (AI). We need to tackle the ethical use of data and how to achieve equity in an era of data monopolies.

This strategy builds on the ODI's experiences from the first five years of its operation. It focuses us on the interventions we have

found work to tackle sector challenges, turn advocacy into action, and build peer networks. And it sets our work in the context where it is just as important to build trust with data as it is to be open with it.

The ODI's vision and expertise is needed now more than ever. We look forward to the next part of our journey.

Sir Nigel Shadbolt (Chairman)
Sir Tim Berners-Lee (President)

INFRA STRUCTURE

1

Sectors and societies must invest in and protect the data infrastructure they rely on. Open data is the foundation of this emerging vital infrastructure.

Our vision

We want people, organisations and communities to use data to make better decisions and be protected from any harmful impacts.

Data is moving from being scarce and difficult to process to being abundant and easy to use. But harnessing its value for economic and social benefit – in ways that support innovation and deliver social justice – is hard.

We envision a future where people, organisations and communities use data to make better decisions, more quickly. This will help our economies and societies to thrive. Using data can enable us to innovate, create more efficient and effective services and products, and fuel economic growth and productivity.

In this future, people can trust organisations to manage data ethically and for the benefits to be distributed fairly. Services that use data meet the needs of individuals, communities and societies.

To bring about this future, we must make data as open as possible while protecting people's privacy, commercial confidentiality and national security. We need to find the right balance for all societies and economies to feel the positive impacts data can bring.

Our mission

We work with companies and governments to build an open, trustworthy data ecosystem.

People, economies and societies are not getting the best value from data.

Business and funding models can restrict the social and economic benefits we receive from data and expose us to privacy and security risks. Data monopolies can increase inequality in how information is accessed and used. Startups, researchers and communities can miss out if they can't afford the fees or access is delayed.

At the ODI, we advocate for and support an **open culture**: a data **infrastructure** that is as open as possible; data literacy and **capability** for all; and open **innovation**.

At the same time, fears arising from legitimate concerns – such as who has access to data and how it might be used – can prevent us from realising data's full benefits. Some people withdraw their consent for organisations to use data about them, leading to data that's biased and misleading. Restrictive laws governing how data is collected and used lead to missed opportunities.

At the ODI, we advocate for and support practices that increase trust and trustworthiness: building **ethical** considerations into how data is collected,

managed and used; ensuring **equity** around who accesses, uses and benefits from data; **engaging** widely with affected people and organisations.

We cannot tackle these issues on our own. We work with others with the same or similar goals. We focus our efforts on one part of the challenge: helping **companies and governments** to build an open and trustworthy data ecosystem. These organisations have particular opportunities and responsibilities as data's main collectors and users. In building this ecosystem, they can become more efficient, make their business and funding models more sustainable, and benefit society.

CAPABILITY LITERACY

Everyone must have the opportunity to understand how data can be and is being used. We need data literacy for all, data science skills, and experience using data to help solve problems.

2

INNOVATION

3

Data must inspire and fuel innovation. It can enable businesses, startups, governments, individuals and communities to create products and services, fuelling economic growth and productivity.

Context

Data is moving from being scarce and difficult to process to being abundant and easy to use.

Data is being generated all the time by our online interactions and the smart devices we install in our homes, in our vehicles and on our bodies. It is also being generated by sensors, satellites, traffic networks and monitoring systems that shape the digital world we interact with.

With this abundance of data, there is renewed energy and investment in AI. Under this umbrella, emerging analytical techniques like machine learning are showing promise in healthcare, transport, agriculture, urban planning and climate-change science.

In the UK, Europe and internationally, we have encountered serious risks and important questions being debated about data.

While data is an increasingly important asset, large data sources are controlled by a small number of companies, and personal data is being misused by both malicious and clumsy actors.

Decisions are being made using data about people in ways they do not control or understand. Data being used for machine learning can be incomplete, outdated and biased.

In 2011, the Open Government Partnership was launched – with the UK as co-chair – kickstarting a wave of governments to make open data commitments in line with goals around government transparency and accountability.

Openness

Now, with changing political winds and priorities, some open data initiatives are stalling. In its first year in office, the Trump administration removed important datasets from websites, leading

to concerns about the future of the open government data in the US.^[1] Research on the sustainability of open data portals in Europe highlighted issues with those portals maintaining political support and funding.^[2]

At the same time, recent political events in the US and Europe have led to a loss of faith in government. Governments need support to advance reforms that protect a culture

1 Tracie Mauriello (2017), 'Government watchdogs criticize Trump's removal of open datasets', <http://www.govtech.com/data/Government-Watchdogs-Criticize-Trumps-Removal-of-Open-Data-Sets.html>

2 Sasse, T. et al (2017), 'Recommendations for open data portals: from setup to sustainability', https://www.europeandataportal.eu/sites/default/files/edp_s3wp4_sustainability_recommendations.pdf

3 CMA (2016), 'CMA paves the way for open banking revolution', <https://www.gov.uk/government/news/cma-paves-the-way-for-open-banking-revolution>

4 Lucchesi, L. (2016), 'Digital Republic Bill: France's first open bill', <https://www.opengovpartnership.org/stories/digital-republic-bill-frances-first-open-bill>

5 Thompson, N. (2018), 'EMMANUEL MACRON TALKS TO WIRED ABOUT FRANCE'S AI STRATEGY', <https://www.wired.com/story/emmanuel-macron-talks-to-wired-about-frances-ai-strategy>

of openness and strengthen their legitimacy. Initiatives like the Open Data Charter and the Open Government Partnership are helping countries to bring about renewed trust with open data.

Access to data is becoming less a transparency issue and more a point of friction for businesses and governments looking to build new business models and deliver more effective and efficient services. Emerging markets – such as Mexico, Argentina, Ukraine and Philippines – are recognising open data as a tool for economic development and **innovation**.

Concerns are growing about data monopolies that could stifle innovation, particularly in the development of AI. This raises questions about how data should be accessed and shared – locally, nationally and internationally. Regulatory intervention and investment in **data as infrastructure** is growing, both in particular sectors and as a fundamental foundation for the economy.

In 2016, the UK Competitions and Markets Authority (CMA) issued reforms for the banking sector, requiring banks to standardise how they share data and publish certain kinds of information as open data by 2018.^[3] Less than a year later, the Australian government announced that it intended to follow suit. →

In France, the Digital Republic Law recognises the importance of data produced by the public sector to the broader French economy.^[4] Macron has made open data a core component of his AI strategy.^[5]

Openness in general has become a central principle where data informs decision making.

The General Data Protection Regulation (GDPR) – in force in the European Union and the UK from mid-2018 – requires those controlling data to be open with people about how data about them is being used, and who has access to it. But people need a basic level of data literacy to make informed choices about what data to share, and what privacy settings to use, they need a basic level of data literacy.

While investments are made in educating data scientists and AI PhDs to meet the demands of a data economy, not enough attention is paid to increasing the **capability** of individuals to exercise their data rights, or decision-makers to use data to achieve their business or policy goals. And as we all come to rely on data to inform decisions, we all need to be aware of the limitations arising from how that data is collected and presented.

With greater use of data come questions about how to govern its use. Investment in data ethics is growing.

Globally, researchers like FAT / ML are exploring tools and techniques to improve the fairness,

Trust

accountability and transparency of machine-learning algorithms and the data they use.^[6]

Google DeepMind announced a new research unit in October 2017 to help technologists put ethics into practice.^[7] In 2017, the New York-based AI Now Institute recommended that ethical codes for AI be accompanied by strong oversight and accountability mechanisms.^[8] Digital Asia Hub led ethics discussions in the Asia Pacific region.^[9] Universities such as Cornell began to create AI ethics courses.^[10] New organisations exploring ethical AI emerged, such as the Algorithmic Justice League and the 3A Institute. →

EQUITY

EQUITY

EQUITY

Everyone must benefit fairly from data. Access to data and information promotes fair competition and informed markets, and empowers people as consumers, creators and citizens.

4

Pg 15 'Trust' continued.

Existing data ethics initiatives focus primarily on reducing risks associated with bias, a lack of transparency and unjust outcomes from automated systems. Meanwhile broader issues associated with digital inclusion and equity are coming to the fore.

Policies around **equity** in data rights, data access and better ways to share the benefits are becoming a priority for governments. The European Union is exploring mechanisms to allow data to flow more freely across its member-state borders^[11] and giving citizens more rights to control how data about them is used, in GDPR legislation.^[12] An independent review of the UK's AI industry recommended data trusts were created – a framework of agreements between government and industry to stimulate secure and mutually beneficial data sharing.

The Australian government commissioned a comprehensive review of data sharing and use from its independent research and advisory body – the Productivity Commission – which proposed Australia overhauled its patchwork data-sharing laws, in favour of one, broad, data-sharing and release Act.^[13]

Elsewhere, vast amounts of personal data are being collected and processed, as low and middle-income countries introduce eHealth systems, citizen identification systems (eg ID cards), and biometric databases. However, as shown by Web Foundation research, the progress on introducing appropriate safeguards and regulation is mixed, and affected communities are not always engaged in shaping these interventions.^[14] While many countries have constitutional provisions protecting individual privacy, only a handful – such

as Mexico, the Philippines and South Africa – have enacted data-protection laws and empowered regulatory bodies to monitor and enforce the provisions.

It will be critical in the coming years to address issues of equity, ethics and cultural context emerging from cross-border data transfers and the widespread use of personal data within service delivery. Many low and middle-income countries lack the ecosystems to use data to build services to compete with those provided by firms from high and upper-middle income countries, such as the US, the UK and China.



6 See: <https://www.fatml.org>

7 Hem, A. (2017), 'DeepMind announces ethics group to focus on problems of AI', <https://www.theguardian.com/technology/2017/oct/04/google-deepmind-ai-artificial-intelligence-ethics-group-problems>

8 Campolo, A. et al (2017), 'AI Now 2017 report', https://ainowinstitute.org/AI_Now_2017_Report.pdf

9 Digital Asia Hub (2016), 'AI in Asia: Ethics, Safety and Societal Impact', <https://www.digitallasiahub.org/2016/12/21/ai-in-asia-ethics-safety-and-societal-impact>

10 Cornell University (2017), 'CS 4732: Ethical and Social Issues in AI', <http://www.cs.cornell.edu/courses/cs4732/2017sp>

11 European Commission (2016), 'Digital Single Market – Free Flow of Data Initiative', <https://ec.europa.eu/digital-single-market/en/news/digital-single-market-free-flow-data-initiative>

12 Information Commissioner's Office (2018), 'Guide to the General Data Protection Regulation', <https://ico.org.uk/for-organisations/guide-to-the-general-data-protection-regulation-gdpr>

13 Australian Government Department of the Prime Minister and Cabinet (2018), 'Data availability and use taskforce', <https://www.pmc.gov.au/public-data/data-availability-and-use-taskforce>

14 World Wide Web Foundation (2017), 'Personal Data: An overview of low and middle-income countries', http://webfoundation.org/docs/2017/07/PersonalData_Report_WF.pdf

ETHICS

5

People and organisations must use data ethically. The choices made about what data is collected and how it is used should not be unjust, discriminatory or deceptive.

6

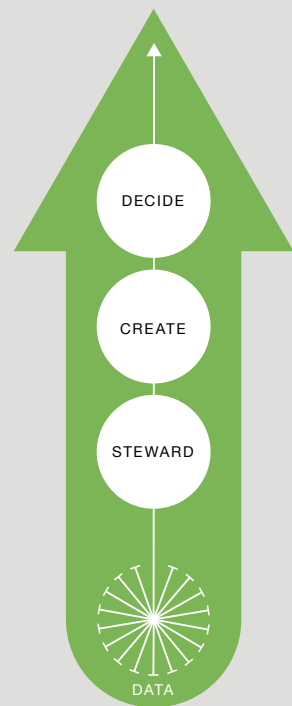
ENGAGEMENT MANAGEMENT

Everyone must be able to take part in making data work for us all. Organisations and communities should collaborate on how data is used and accessed to help solve their problems.

Our theory of change



POSITIVE IMPACT



Three activities create impact from data:

- **stewarding** data – collecting it, maintaining it and sharing it
- **creating** information from that data – in the form of products and services, analyses and insights, or stories and visualisations
- **deciding** what to do – informed by information from multiple sources along with experience and understanding

Each of these activities can be carried out by individuals, companies, communities and governments.

A government might steward transport data, which is used by a company to create a route-finding application used by individual commuters to decide how to travel to work.

A community might steward data about the location and operation of drains, which is displayed in a map created by an individual and used by local

Illustrations: Ian Duttall

government to decide where to send a maintenance team.

A telecoms company might steward call logs, which are visualised within software created by another company and used by a humanitarian agency to decide where to target aid, based on population density.

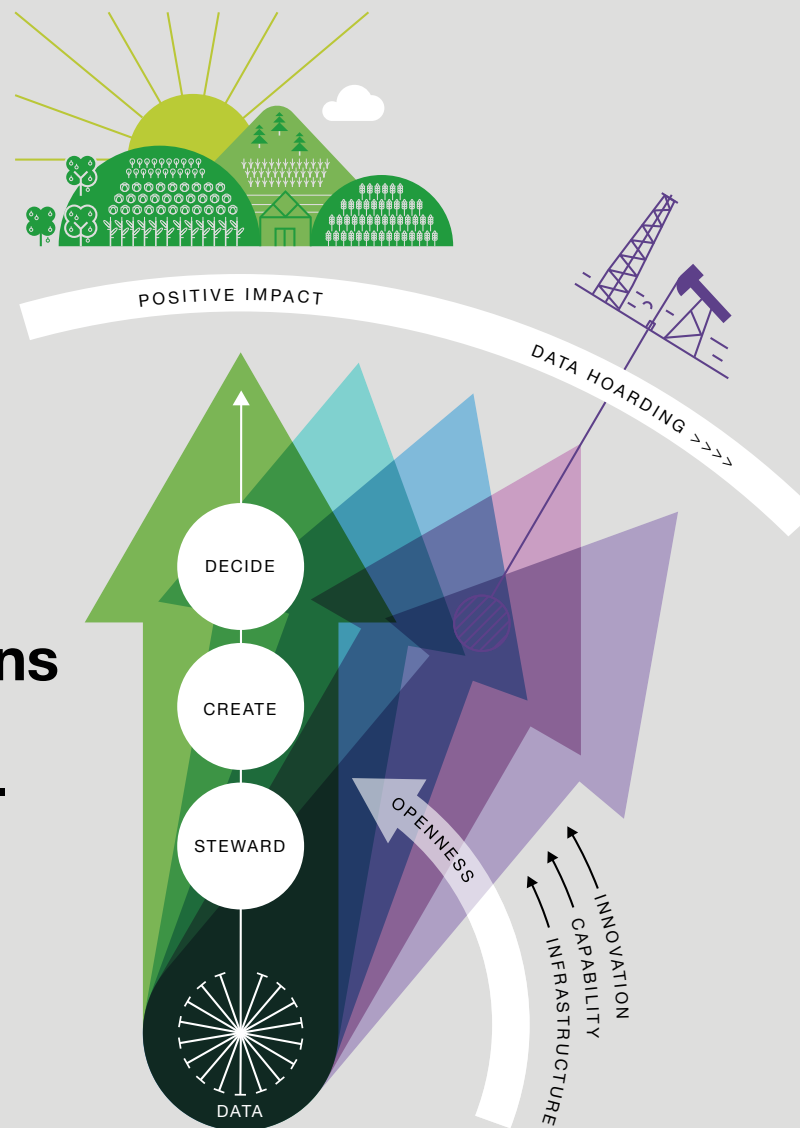
How value is created from data

We want those who steward data and those who create information from this data to act in ways that lead to the best social and economic outcomes for everyone. In our theory of change, we call this goal the **farmland**.

Scenario: What happens when we hoard data – the oil field

There is a danger that in some places, organisations hoard data.

They may use inappropriate business or funding models for data that limit the value that we, as a society, get from it. Here, value is concentrated in data monopolies, increasing inequality. We are more exposed to negative side-effects such as privacy and security risks.



We call this scenario the **oil field** because data is treated like oil. Its value is only realised by a few organisations and there are negative side-effects from its use that affect society as a whole.

We think the benefits of data should be felt more widely in societies and economies. We also think that organisations that hoard data won't be sustainable in the long term.

We advocate for and support applying an **open culture** to the three pillars of how data is used within our economies: a data **infrastructure** that is as open as possible; data literacy and **capability** for all; and open **innovation**.

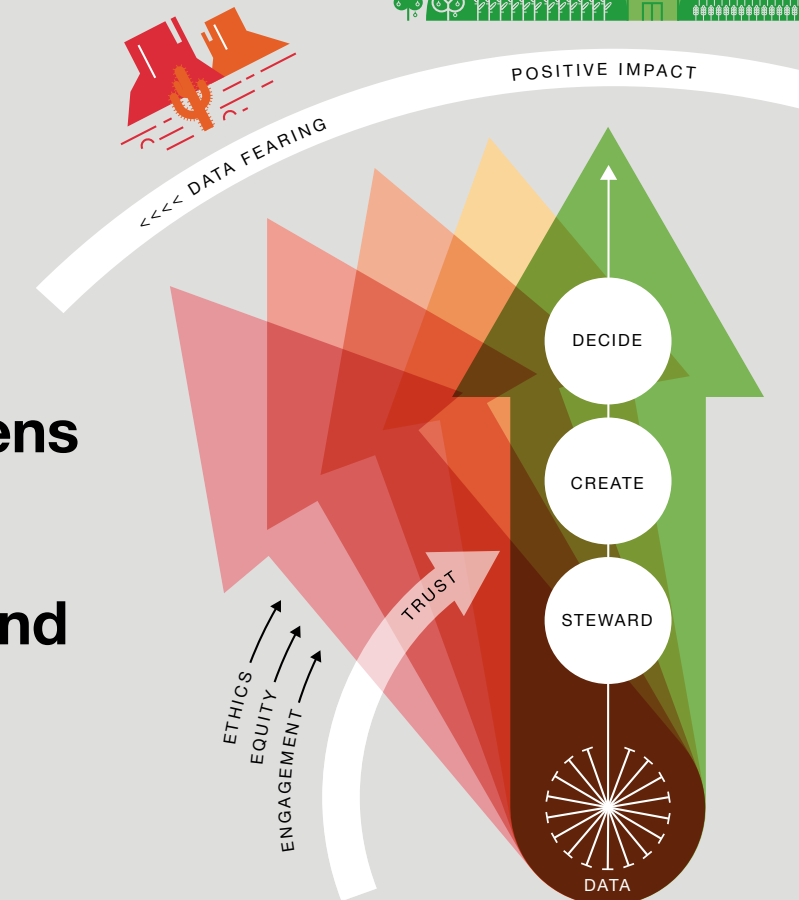


POSITIVE IMPACT

Scenario: What happens when we fear data – the wasteland

There is a danger that unaddressed fears arising from legitimate concerns – such as who has access to data and how it might be used – prevent us from realising its full benefits.

Data might not be collected or used to the extent it could be. Individuals withdrawing consent could lead to data that is biased and misleading.

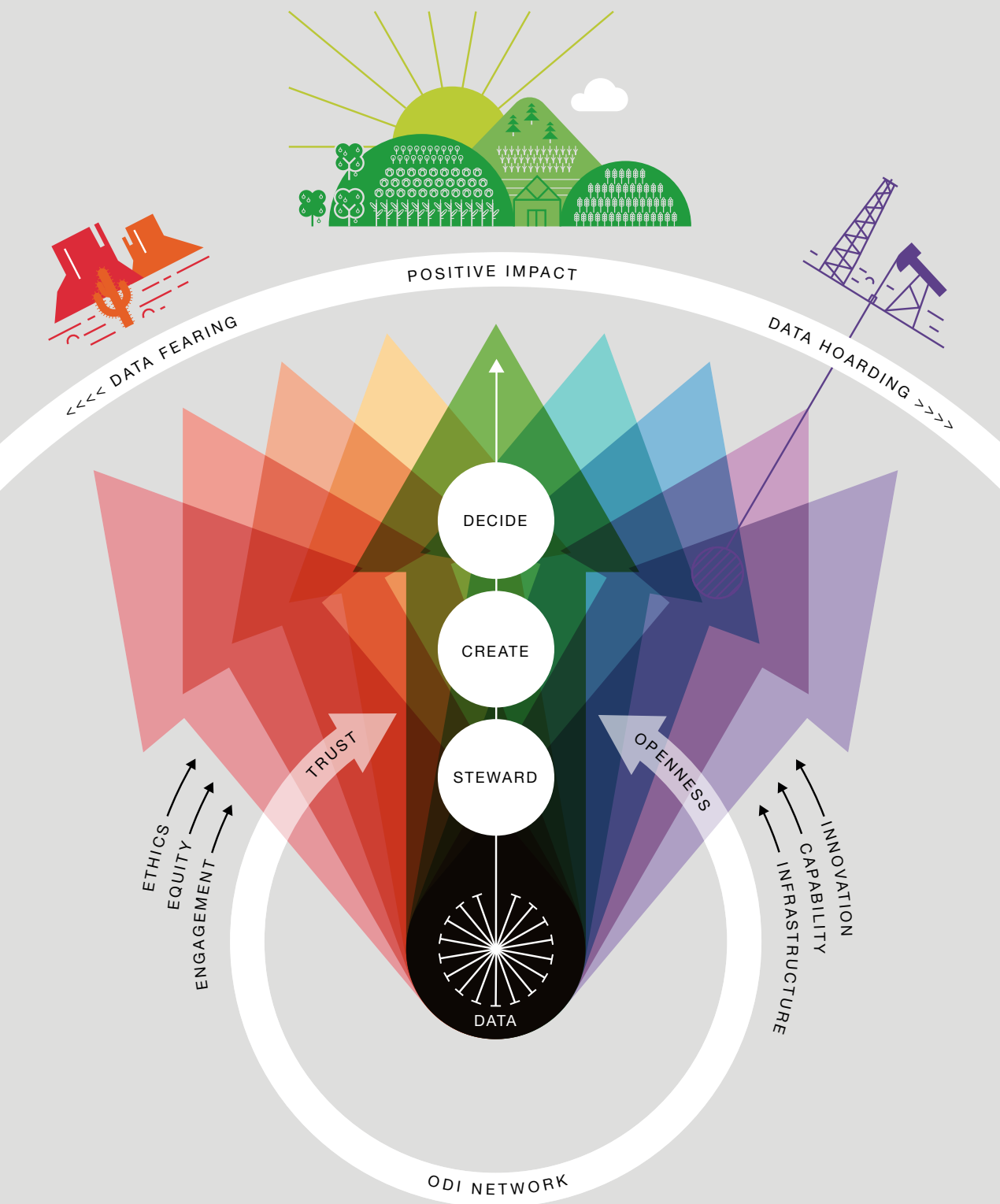


We call this scenario the **wasteland** because we end up lacking the data that could support data uses to flourish.

We think data is an incredibly useful commodity and that we can all benefit when it is used well. We advocate for and support putting in place practices that ensure the way data is collected and used is trustworthy and just.

These include:

- building in **ethical** considerations to data collection, management and use
- ensuring that there is **equity** around who accesses, uses and benefits from data
- **engaging** widely with people and organisations who are affected. →



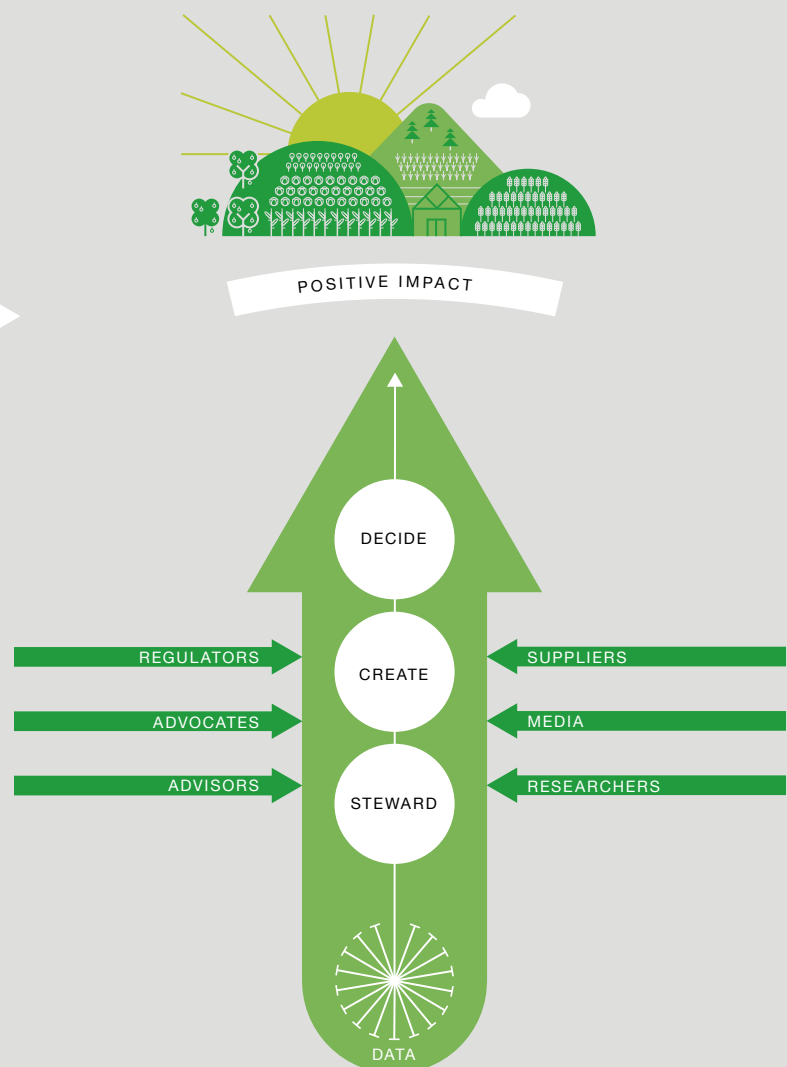
How we achieve scale

We are one of many organisations working towards a good balance between encouraging and restricting how data is collected and used.

At the ODI, we focus on changing the behaviour of **companies and governments** in their roles as stewards, creators and decision makers, emphasising activities early in the value chain. Companies and governments are the biggest holders and users of data, and influence other types of organisation. They have particular responsibilities and opportunities, and should lead by example. The behaviour of those who steward data, create information from it, and decide what to do based on this knowledge is influenced by other kinds of organisations. To build a culture of openness and trust around data, we have to work with and through them.

These include:

- **regulators** who create the policies and legislative frameworks within which others operate
- **advocates** such as thinktanks and pressure groups, who encourage organisations to behave in particular ways
- **advisors** such as big consultancies and training organisations, who advise businesses and governments about good practice in their strategy and operations
- **suppliers** of tools and services that organisations use, which influences what practices they can easily support
- **media**, both mainstream and speciality, which influences how business and government leaders think
- **researchers** from academic institutions and elsewhere, who provide evidence and analysis that can help support, or refine, our arguments and approach.



Our three levers

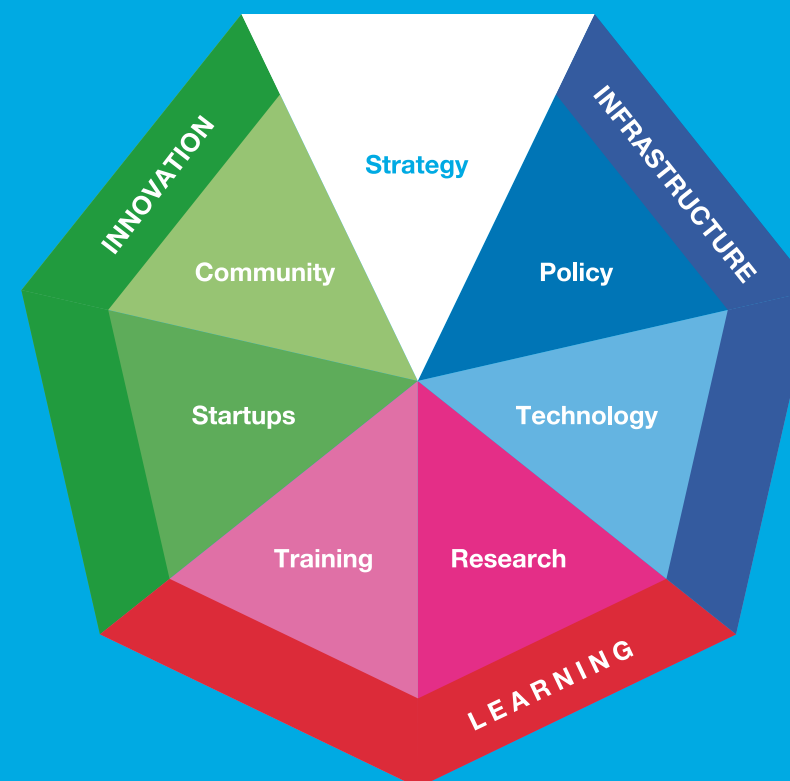
To further our mission, we need to bring about **sustainable behaviour change within companies and governments that hold and use data.**

This needs to address the motivation, opportunity and capability of those actors. We have found three sets of activities that, in our experience, are most likely to lead to that sustainable change.

- **Sector programmes** – coordinating organisations to tackle a social or economic problem with data and an open approach.
- **Practical advocacy** – working as a critical friend with businesses and government, and creating products they can use to support change.
- **Peer networks** – bringing together peers in similar situations to learn together.



Sector programmes



Within sector programmes, we coordinate organisations to tackle a social or economic problem with data, using an open approach. This creates impact both through addressing the problem and embedding good data practices and business models within those organisations. →

Photo: OpenActive, Waterfront Boxing Academy, courtesy Sports England



Helping more people get active: OpenActive

OpenActive is a community-led initiative of sport and physical activity organisations and individuals.

Stewarded by the ODI, OpenActive uses open data to help people get active. It aims to support the 17.1 million (38.2%) adults in England who don't exercise enough to easily discover and take part in sport and physical activity. Empowering people to make better and easier decisions around physical activity benefits the nation – general health and wellbeing is increased, strain on the health service is reduced, and the value of the sport and physical activity sector grows, boosting productivity.

OpenActive has three phases, roughly spanning a 3-year investment of National Lottery funding granted by Sport England. Together, the sector is improving access to data about where and when people can take part in physical activity. This involves developing open standards, building data literacy and working collaboratively to evoke change across the sector.

Photos: (Above) Age UK seated exercise; (Left) Youth Mellor Primary School, courtesy Sports England

As part of the programme, the ODI is running an accelerator for startups building ready-to-market products and services that help make people be more active. With our partner Sport England and over 80 committed companies in the sport and physical activity sector, 76,000 activities and counting are published every month as open data.



Our focus on impact within these sector programmes helps to ensure the changes they inspire are sustainable. Organisations are motivated to help address the problem; showing impact through the programme helps to maintain that motivation.

Our focus on collective action within the programmes reduces the sense of risk felt by organisations, particularly companies, embarking on open ways of working for the first time. Becoming more open alone can feel risky; doing it at the same time as competitors feels like an opportunity.



Improving innovation in banking: Open Banking

Open Banking is a movement towards more open approaches to banking data.

These include customer account data being shared between banks and other service providers, and open data related to banking products, services and operations being published.

In 2015, the ODI co-chaired the UK's Open Banking Working Group (OBWG) at the request of HM Treasury. The group consisted of more than 200 industry experts from banking, data, consumer and business communities. The group published an Open Banking Standard to guide how banking data should be created, shared and used to help improve competition and efficiency, and stimulate innovation in the banking sector.¹⁵

The subsequent Open Banking initiative is also driven by regulation such as the European Commission's Second Payment

Services Directive (PSD2) and intervention from the UK Treasury and Competition and Markets Authority (CMA). The UK's nine largest banks launched Open Banking in January 2018.

The ODI continues to provide an expert critical voice in the developing UK implementation of Open Banking. We also support international governments and regulators as they look to learn from the UK's experience in adopting similar principles within their own jurisdictions. We have influenced similar interventions in Australia and New Zealand. We have been engaged by the The UK Foreign and Commonwealth Office (FCO) to assist the Mexican Government to develop a roadmap for its own open banking initiative. We will be providing similar advisory services to the central bank in Ukraine.

¹⁵ See: <https://theodi.org/open-banking-standard>

Our experience with sector programmes such as Open Banking and OpenActive has demonstrated that the ODI can provide value in sectors that wish to change to more open and more data-enabled ways of working.

We bring a unique combination of open and data **expertise**, **experience** with running sector programmes, and **independence**.

We have seen several different routes through which sector programmes can come into being.

These include through regulation, public sector or philanthropic investment, and from within the sector itself. Our model is to deliver these in partnership with domain experts and with those working with complementary types of organisations such as community groups.

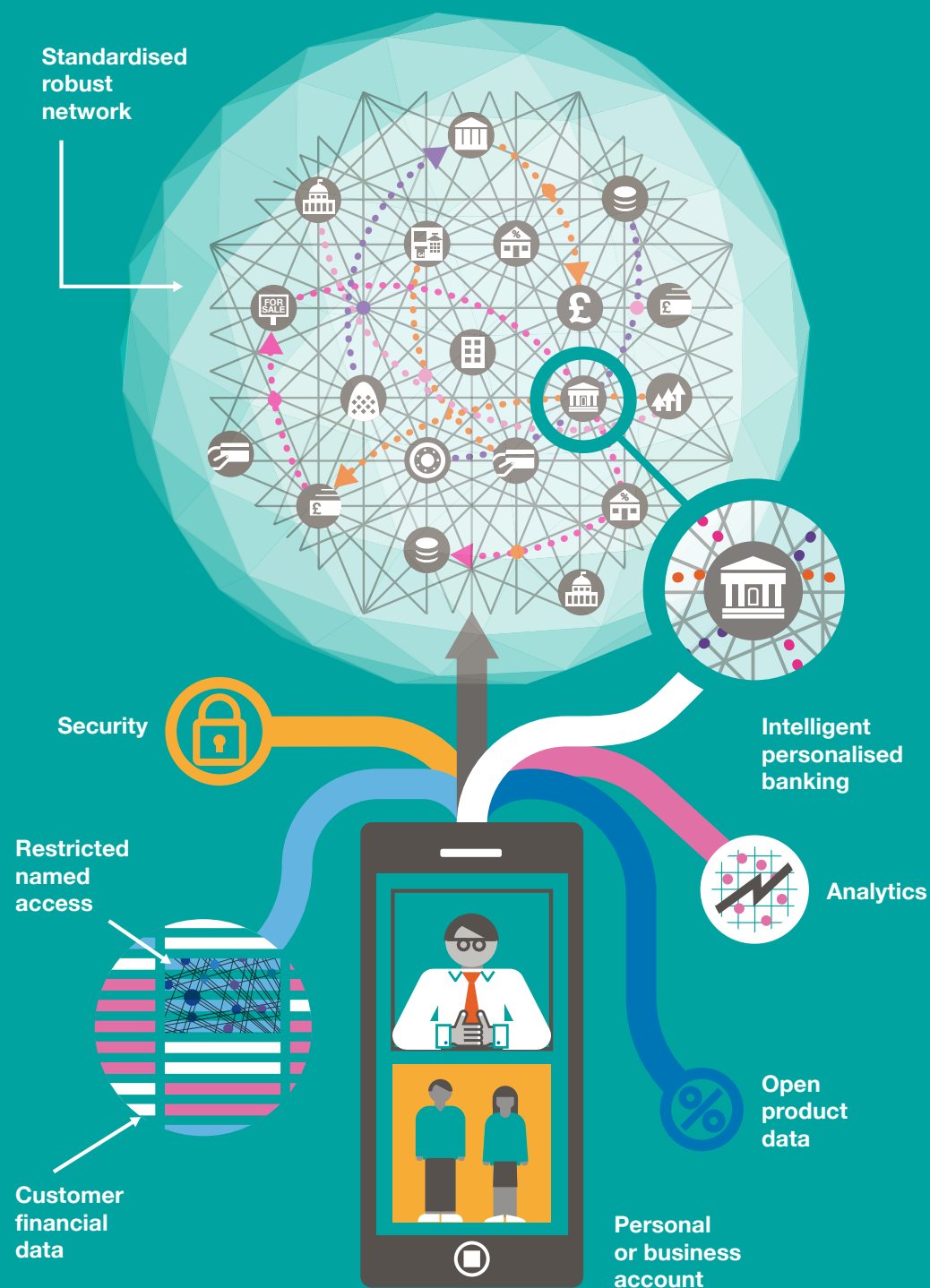


Illustration: Ian Duttall

Advocating for food security: GODAN Action

GODAN Action is a programme embedding data standards, measuring impact and growing capacity in open data in the agriculture and nutrition sector, funded by the Department for International Development (DFID).

The 3.5-year programme is focused on helping stakeholders to engage with and use the open data to support farmers in developing countries to increase yields, enhance their livelihoods and improve food security. It focuses on making better use of the available open data – namely weather data, land data and nutrition data – for achieving impact.

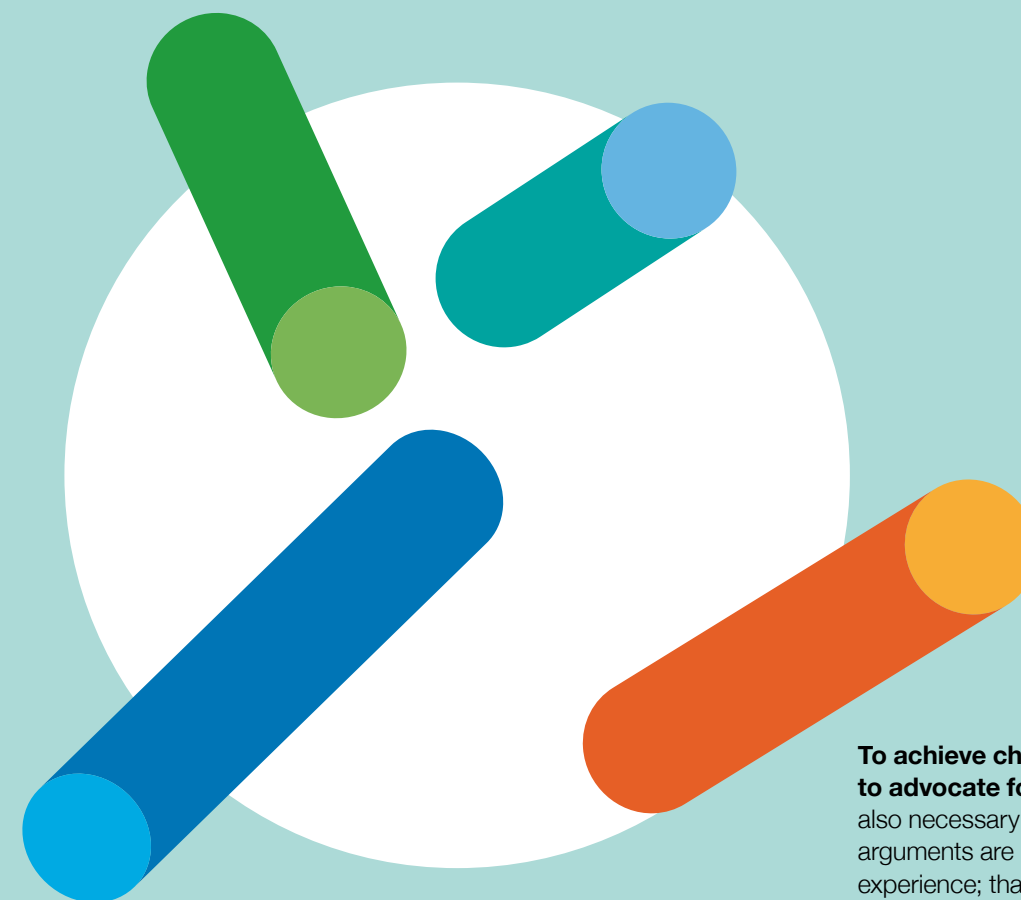
The ODI is contributing to creating guidelines and recommendations for standards for agriculture and nutrition data, working on methodologies to best measure the impact of the use of open data in the sector, and providing learning and training materials.

In early 2018, already more than **1000 people** around the world had benefited from the eLearning course we have created so far, and **383 people** had taken part in webinars. This helped strengthen the capacity of data producers, intermediaries and consumers to effectively and use open data in agriculture and nutrition.

Sector programmes do not succeed if they only focus on technical challenges. We draw on a range of activities to support effective change.

- **Strategic advice** – identifying how data can help to achieve programme goals and how to measure success, for example
- **Policy development** and guidance – scrutinising the interaction between general data governance practices and sector norms, for example
- **Technology development** – creating appropriate data standards and the tools needed to support them
- **Research** – from creating case studies of the role of data in the sector to rigorous impact evaluation
- **Training** – including blended learning packages that combine face-to-face, eLearning and webinars
- Running **competitions and acceleration** programmes – to foster innovation in the sector
- Building **communities** within the sector – and communicating clearly with them.

Practical advocacy



To achieve change, we need to advocate for it. But it is also necessary to ensure those arguments are based on practical experience; that organisations are equipped with the support, tools and capacity they need to adopt the changes we advocate for; and that we speak the language of the organisations whose behaviour we wish to change. →

As we investigated the debates over data ethics, we discovered the need for a tool to help organisations, teams and individuals understand and make more ethical decisions about data collection, sharing and use.^[16]

We developed the Data Ethics Canvas to meet this need and published the first iteration in August 2017, attracting interest from existing contacts such as a UK retailer, a network of US city chief data officers and the Gates Foundation.^[17] We are using it to help partners make decisions in our delivery projects. In 2018 we published a new iteration alongside workshop designs to generate wider use across the network.

Data Ethics Canvas

16 Smith, A. (2017), 'Why we need the Data Ethics Canvas', <https://theodi.org/blog/why-we-need-the-data-ethics-canvas> 8 Campolo, A. et al (2017), 'AI Now 2017 report', https://ainowinstitute.org/AI_Now_2017_Report.pdf

17 See: <https://theodi.org/the-data-ethics-canvas>

Our practical advocacy is made up of three types of activities:

- **advocacy** that raises awareness of the issues with the organisations who need to take action; this includes **framing** the arguments, **targeting** the right people, and **communicating** with them in ways that change behaviour
- **tools** that lead organisations through the steps they need to take; these include **design tools** that help structure exploration and discussion of an issue (such as the Data Ethics Canvas) and **acting tools** that provide support for the activities people need to take part in (such as those in the ODI Toolbox)
- **learning** that enables organisations to pick the best course of action; this includes gathering **evidence** about the growing body of research and practice to identify what works and sharing that knowledge through in-person and online **training**.

We need to understand the people and organisations we seek to change, their experiences and challenges. Our practical advocacy includes working with organisations – from multinational companies and governments to startups and cities – which enables us to learn about what they, and organisations like them, need.

Developing the Data Maturity Model with Defra

The open data maturity model is a tool to help organisations assess their capabilities as a publisher and consumer of open data.

Based on our experience of supporting a wide range of organisations, and informed by the needs of the Department for Environment, Food and Rural Affairs (Defra) open data programme, the model explores how an organisation approaches data and knowledge management, community engagement and its data strategy around the use of data.

The model is supported by a self-assessment tool, Open Data Pathway, that allows any organisation to undertake an assessment, plan a roadmap for improvement, and benchmark themselves against other organisations.

The model and assessment tool has been used by Defra to benchmark its capabilities during initiation of its open data programme. It was adopted and used by the public sector in Queensland to inform its open data strategy^[18] and informed the data quality framework for the Australian government.^[19] It has also been used to design the Open Data Charter adoption and implementation roadmap.^[20]

The self assessment tool has been improved by our node, ODI Queensland, to provide additional country-level benchmarking. We have also used the model to support commercial organisations in improving both their open data practice and internal data governance frameworks. Collectively, the model is being used to inform decision making around improving organisational approaches to maximising value from data across the data spectrum.

We generalise the guidance, research and training we develop to **create** products that are useful to other organisations around the world. As we do so, we **test** these products with other people and organisations, seeking feedback and iterating to ensure they meet the needs of the wider community. When we disseminate the products, we try to embed them in the places people already go, for example in existing training courses or in guidance issued by other organisations.

18 e.g. Department of Transport and Main Roads Open Data Strategy 2017-2020, <https://publications.qld.gov.au/dataset/22545e3f-a4f2-494e-a5e2-531892a709c5/resource/0df58201-5429-4c04-9603-b81ae7891a21/download/tmr-open-data-strategy-201518.pdf>

19 Improving data quality on data.gov.au, <https://blog.data.gov.au/news-media/blog/improving-data-quality-datagovau>

20 Introducing the new adoption and implementation roadmap, <https://opendatacharter.net/launching-roadmap>



Photo: Participants at the ODI Training Discovery Day 2015

Peer networks

People in both the public and private sector are looking for ways to become more innovative, harness data's potential to improve decision-making, and make processes more efficient.

Yet these innovators often feel isolated within their own organisation, or don't know where to go to access support and find inspiration. They need to be equipped with the skills to manage change, engage with stakeholders, advocate and communicate their vision, and translate data into impact.

At the ODI, we believe that today's complex problems are best solved through collaboration and network thinking.^[21] Peer networks help us to deliver support while extending our reach. Network members benefit from being connected with a group of peers facing similar challenges, and from learning through exchanging stories of both success and failure.

The existing peer networks that are particularly important to us include:

- **corporate partners** with whom we work through three year relationships
- **corporate members** who pay an annual subscription to be kept up to date and attend quarterly events
- **nodes** who work locally, around the world, to advance our common vision
- **open data leaders** who have been part of our Open Data Leaders Network
- **fellows** who use the ODI as a base for their research and development.

²¹ Smith, F. et al (2016), 'How to create and sustain peer networks for open data leaders', <https://theodi.org/method-report-peer-networks-for-open-data-leaders>

The Open Data Leaders Network supports a peer network of data pioneers in governments from all around the world.^[22]

We aim to improve the capacity of governments to solve problems through data by promoting shared learning on topics such as managing change, implementing successful data strategies, innovation methods, measuring impact, and the latest tools and data-driven technology. To date we have reached government leaders from 43 countries, representing both national and subnational levels.

Photos: (Above) Open Data Leaders Network 4th cohort; (Opposite) 2nd cohort



We bring them together for a week of face-to-face training, discussion, sharing and exchange visits – and stay engaged throughout their progress to offer advice, introductions or opportunities to profile their initiatives. This approach helps to promote good shared practices globally, while providing encouragement and motivation to the individual leaders.

Open Data Leaders Network

²² See: <https://theodi.org/open-data-leaders-network>

Other peer networks emerge around sectors or shared challenges, or already exist. For example, groups of organisations within particular sectors are brought together through our sector programmes. There are opportunities to use peer networks to bring together and influence other organisations such as tech giants, big consultancies, academics, or consumer rights groups.

We see each of these as a peer network, and aim to coordinate them with a similar methodology, adapted to the needs of each group. We:

1. act as or support a convenor for the group
2. build relationships through face-to-face and virtual engagement using platforms that enable members to self-organise, engage others and take ownership over actions
3. promote network thinking among participants, and opportunities for intentional learning to exchange experience and lessons
4. encourage peers to collaborate on outputs that build their external credibility and influence as well as cementing relationships
5. intentionally monitor and evaluate network outputs and outcomes at both individual and institutional levels.





Photo: Participants on an ODI training course in Tanzania, 2016

As one of the UK's largest retailers, Sainsbury's and its suppliers collect large volumes of data related to the products it stocks, the value chains involved in producing them and the customers who buy them.

To help Sainsbury's harness the potential of data, we designed and executed the Sainsbury's Data Mentoring Circle. Running for 12 months, the ODI delivered quarterly workshops to provide

a unique environment for Sainsbury's staff and some of its top suppliers to convene outside their regular commercial interactions to collaborate on approaches to using data more effectively.

The workshops focused on the topics of data advocacy, data strategy, connecting data and sharing data; we also developed a bespoke set of eLearning modules that focused on sharing value chain data more widely to promote transparency and openness.^[23] This led them to explore pilot projects to improve the use of data in their value chain.

Sainsbury's Mentoring Circle

23. See: <http://sainsburys.learndata.info/sharing/#/id/co-01>

OUR FUTURE

We are building an ODI that is impactful and sustainable.

This means reasserting our international expertise,

working with partners and creating sustainable products.



INTERNATIONAL



REASSERTING



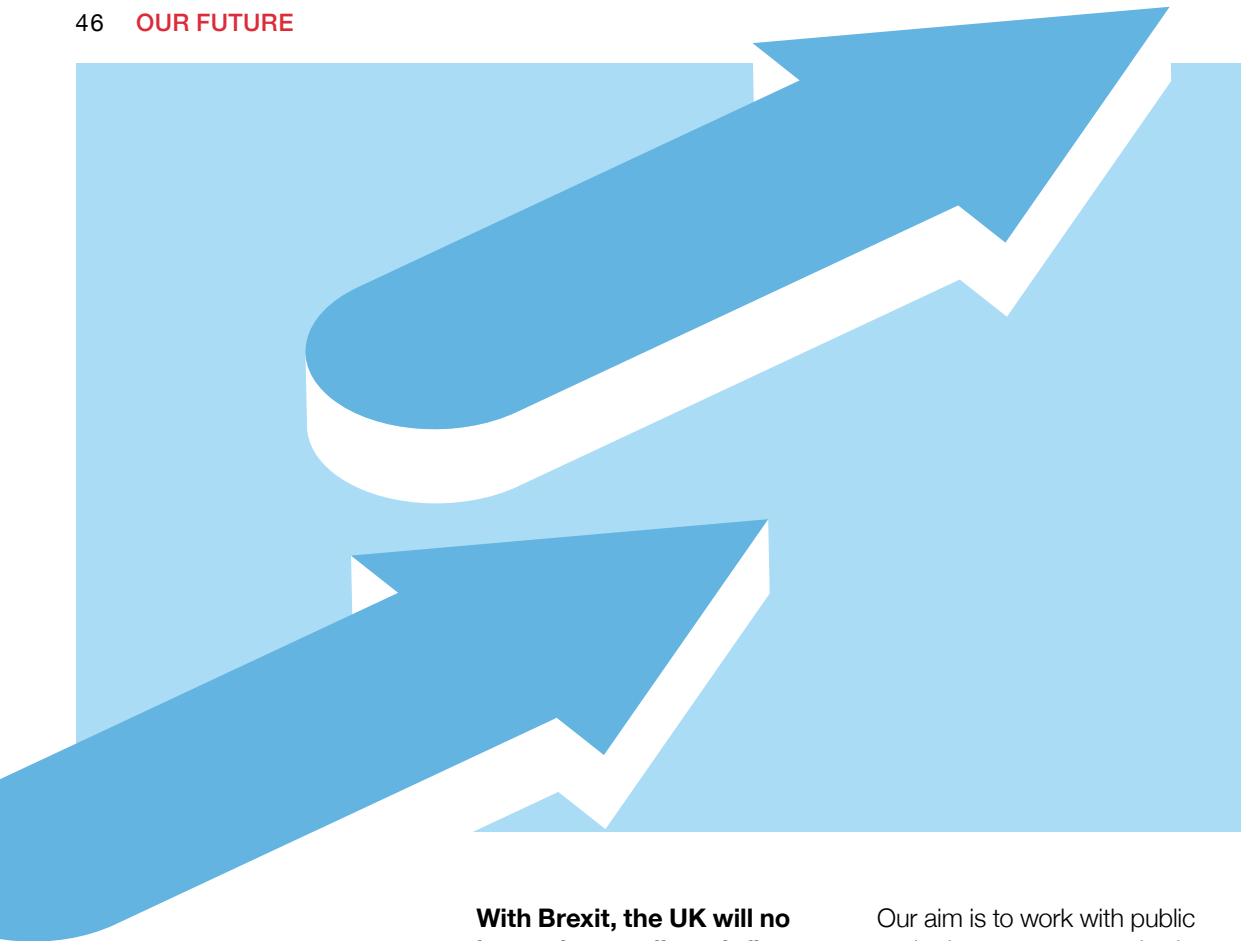
EXPERTISE

The UK is a world leader in open data, data science and AI.

The work that the ODI does within the UK has global impact because of the UK's leadership position: where the UK goes, others follow.

Being headquartered in London, and receiving substantial funding from the UK government, provides us with a strong base from which to grow.

However, we must operate beyond this base to have the scale of impact that we are aiming for. Reaching beyond the UK – to Europe and beyond – is a priority for us over the next five years. →



With Brexit, the UK will no longer have a direct influence on Europe-wide policy and regulation.

EUROPE

Achieving large-scale impact on data policy across Europe will need to be achieved through direct engagement with European Commission policymakers, such as those in DG CONNECT, and at the country level, particularly through influential countries such as Germany and France.

Our aim is to work with public and private sector organisations across Europe.

We will need to proactively build on our established links – such as with Open Knowledge International, Wikimedia and Deutsche Bank – and build partnerships with organisations such as Etalab, the organisation that coordinates France’s open data policy and practice.

At the policy level, we will proactively build relationships with DG CONNECT, contribute to EU consultations, and continue to be involved in Horizon 2020 projects with Europe-based consortium partners.



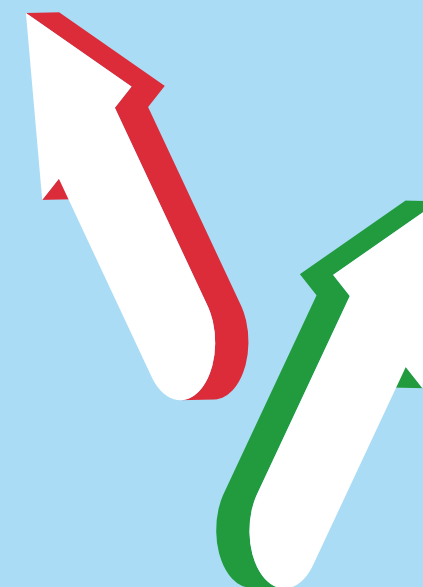
INTERNATIONAL

Beyond Europe, we have three areas of focus:

- working with **governments** in emerging and middle-income countries with demonstrated political will and commitment to reform, especially where these are UK trade and investment target countries
- working with multinational **companies** and international organisations to tackle worldwide challenges, such as antimicrobial resistance, through sector programmes
- maintaining a presence in and influencing key **international bodies** such as the Organisation for Economic Cooperation and Development (OECD),

the International Open Data Charter and the Open Data 4 Development Network (OD4D), to maintain global leadership and influence.

We will proactively extend and use our network of ODI Nodes as a source of intelligence about international opportunities. We will also continually assess whether it would be worthwhile to invest in establishing ODI offices outside the UK to service international projects or extend our reach.



Working with partners

We cannot achieve our vision alone; nor can we deliver our mission alone.

In particular, we will aim to maintain and establish partnerships of three types:

- **sector partners** who provide domain expertise (eg in health, transport or robotics), to enable us to deliver successful sector programmes
- **delivery partners** who have experience with particular activities (eg market research, training, startup acceleration, technical development), to enable us to focus our expertise and to grow the sector as a whole



Photos (Above and Opposite): Participants at the ODI Training Discovery Day 2015

- **influencing partners** who can help develop our thinking, deliver our messages or influence those we wish to influence.

Creating sustainable products

We need to create products to reduce our cost of activity and provide a potential source of sustainable income over the longer term.

Scalable products

There are a number of opportunities for the ODI to offer scalable products:

- **eLearning courses**, some of which are offered for free and some which have been developed for specific audiences or projects
- **publishing tools** – we already have the ODI Toolbox including CSVLint and Octopub, but other tools could also be developed
- **auditing and certification** – we already offer the Open Data Certificates and the Open Data Pathway, but there is potential to offer other services, such as provenance or ethical auditing

- **independent brokerage** – being a trusted intermediary to manage access to data (data trust)
- **sector stewardship** – providing a continuing service for organisations following a sector programme.

We will use R&D and project funding to better understand the needs and potential of these and other products, to ensure that any of our financial investments into product development are likely to provide longer-term impact and revenue.

Increasing productivity

We must constantly aim to improve our processes and institutional memory.

We must avoid repeating work or mistakes, and enable ourselves



to deliver similar work more effectively and efficiently each time. This is all part of being a learning organisation.

We will identify specific areas where libraries of material would be useful to maintain. These include:

- workshop plans
- case studies and evidence
- indicators and theories of change
- graphics and document templates.

How we improve

Constant learning, adaptation and improvement are essential for the ODI to achieve the aims outlined in this strategy.

Monitoring and evaluation underpins this learning, providing insights and measures of progress against our strategy, priorities, programmes of work and impacts.

Being a learning organisation

The ODI will further develop as a learning organisation.

We are adopting an organisation-wide framework for ongoing learning and tracking its benefits in improving organisational productivity and expertise. Priorities identified through

the framework are leading to work plans to improve aspects of learning at leadership, culture, individual, team and organisational levels.

KPIs and review processes

We use the following Key Performance Indicators (KPIs) to track progress against the three levers of sector programmes, practical advocacy and peer networks.

Secondary indicators will be developed and implemented throughout the ODI to link delivery, business development and support functions to strategic objectives. The main KPIs will

In the first year of the strategy we will further develop indicators against our three internal priorities to reassert international expertise, work with partners and create products.

last the life of the strategy with the option to adjust to ensure they remain relevant and useful.

	How many?			What does 'high quality' mean?		
	2018	2019	2020	Impactful	Co-created	Documented
High-quality sector programmes running	2	4	6	Positive social/ economic impact goal impacting >50k people with clear theory of change & MEL execution	Engagement with >3 types of stakeholder	Lessons captured as a case study
High-quality practical advocacy products created	2	2	2	Embedded in systems/processes or third party policy/guidance of >2 stakeholders	Contribution received from >5 stakeholders in design	Lessons captured as a case study
High-quality peer networks running	2	4	6	>3 participants report positive impact from being part of network	>30% of participants report interacting with others in network	Lessons captured as a case study

Quarterly and annual review processes

On a quarterly basis, we review our KPIs and focus priorities for the next quarter.

These inform the ODI Board, senior management team and leadership in evaluating or adjusting tactics and activities. Sharing impact stories makes our progress more transparent to funders and partners.

We will review our progress towards our strategic objectives each year, combining insights from quarterly reviews, findings from programme assessment and research, and insights into the changing external landscape.

This reflection will support our strategy, help us to plan for the year ahead, and feed into our annual reports.

Since 2012, the ODI has built thriving communities both online and offline.

Our brand is well-known and highly regarded. We have welcomed thousands of people to our events and seminars, been featured in thousands of pieces of media coverage, and produced hundreds of publications.

Our success partly hinges on our ability to communicate our vision and mission to a wide audience, and to share, engage and collaborate with others. We will do this across all three of our levers: sector programmes, practical advocacy and peer networks.

In all our communication, we aim for:

- clear written language that avoids jargon and speaks to the widest possible audience

- high production values with beautiful, engaging visual materials that inspire and inform

- telling colourful data stories that emphasise impact

- preserving and developing the ODI's brand across a broad range of outputs

- creating targeted, meaningful and relevant content for our broad range of audiences.

How

we

communicate

Broadening



As we broaden our reach into more sectors and geographies, we understand that new audiences and stakeholders may not have a high level of technical knowledge.

We will maintain our clear, unambiguous style while developing our use of illustration, video and audio techniques to tell our stories in as many varied and interesting ways as possible.

We work across a range of channels – including in the media, social media, and our wider stakeholder network – to tell our stories in multiple domains to diverse audiences.

How we communicate reflects our commitment to openness and collaboration. Increasingly, we publish outputs at an early stage, encourage comments and feedback and use our digital and social channels to invite people to engage and participate.

Our Data as Culture art programme commissions and exhibits artists and works that use data as an art material. Since it began, Data as Culture has reached over 100,000 people, simultaneously provoking, stimulating and expanding the way we think about data and its impact on us as individuals and society.

We also reach our varied audiences through speaking engagements, participating in panels and attending events. We will proactively expand these face-to-face encounters into the domains (including sectors and countries) where we seek to grow. At the same time, we will continue to produce high quality, thought-provoking ODI events like our lunchtime lecture series and the ODI Summit.

EXPERT

We are good at what we do. We use our expertise to achieve our mission. We are open and generous with our expertise and experience, and share it outside and inside the ODI.

We can get better at what we do. We recognise the limits of our expertise and respect that of others. We are open to and seek advice, opinions and support to develop our expertise, within and outside the ODI. We reflect on what works and what doesn't to consciously learn, improve and grow.

ENABLING

We succeed when others flourish. We support and challenge others to do their best work. We open up opportunities for other people and organisations, and empower them to take them. We are as open as possible about what we are doing and what we have learnt. We encourage others to refine and build on our work.

We empathise with others so we can help them. We find out what people and organisations really need. We have empathy with their motivations and the constraints they operate under. We communicate in terms they understand.

FEARLESS

We are trusted because we are honest and responsible. We are open with our opinion, open to hearing what others say, open to being wrong and open to changing our mind. We are not afraid to speak our mind when it is useful or important, and take responsibility for the results of doing so. We actively and curiously listen to others, and take responsibility for our responses to them.

We can do more than we might think. We are bold, creative and open to failure. We know what we do won't be perfect at first but that doesn't stop us. We start small and quickly, and iterate to improve.



Our team

Sir Nigel Shadbolt, Chairman

Sir Nigel Shadbolt is Professor of Computer Science at the University of Oxford and Principal of Jesus College. He is also the Chairman and Co-Founder of the Open Data Institute. Since 2009, Sir Nigel has helped transform public access to government information.

With over 500 publications, he researches computer science, AI, open data and web science. He is currently Principal Investigator on a large EPSRC grant researching the theory of social machines: web-scale problem solving systems comprising humans and computers.

In 2006 he was a founder of Garlik Ltd, which in 2008 was awarded Technology Pioneer status by the Davos World Economic Forum. Garlik was acquired by Experian Ltd in 2011. In 2013, he was awarded a Knighthood for services to science and engineering. He is a member of the GDS (Government Digital Services) Advisory Board and in 2015 the Chancellor asked him to Co-Chair the UK France Data Taskforce.

Sir Tim Berners-Lee, President

Sir Tim Berners-Lee, a graduate of Oxford University, invented the web while at CERN in 1989. In 2001 he became a Fellow of

the Royal Society. In 2004 he was knighted by H.M. Queen Elizabeth and in 2007 he was awarded the Order of Merit. He co-founded and is President of the Open Data Institute in London. He is a Professor at the Massachusetts Institute of Technology and Oxford University. He is the Founder and Director of the World Wide Web Consortium (W3C) and the World Wide Web Foundation.

In April 2017, Sir Tim was awarded the ACM A.M. Turing Prize for inventing the World Wide Web, the first web browser, and the fundamental protocols and algorithms allowing the web to scale. The Turing Prize, often referred to as the “Nobel Prize of Computing”, is considered one of the most prestigious awards in Computer Science. Sir Tim is a long-time defender of Net Neutrality and the openness of the web.

Dr Jeni Tennison, CEO

Jeni Tennison is the CEO of the Open Data Institute. She gained her PhD in AI from the University of Nottingham then worked as an independent consultant, specialising in open data publishing and consumption. She joined the ODI as Technical Director when it was founded in 2012 and became CEO in 2016. Jeni was awarded an OBE for services to technology and open data in the 2014 New Year Honours.

Before joining the ODI, Jeni was the technical architect and lead developer for legislation.gov.uk. She worked on the early linked data work on data.gov.uk, including helping to engineer new standards for publishing statistics as linked data. She continues her work within the UK’s public sector as a member of the Open Standards Board and the Ministry of Justice’s Data, Evidence and Science Board.

Jeni was appointed to the W3C’s Technical Architecture Group from 2011 to 2015 and co-chaired the W3C’s CSV on the Web Working Group. She now sits on the Advisory Board for the Open Contracting Partnership; the Board of Ada, the UK’s National College for Digital Skills; the Co-operative’s Digital Advisory Board; and the Board of the Global Partnership for Sustainable Development Data.

Our team is built around a core permanent team of data experts and supporting functions in operations, business development, marketing, production and communications. This is supplemented by team members who are brought in to focus on specific projects, and a range of associates who provide specialist expertise.

Photo: (Opposite) ODI Summit 2015



How we are funded

We have a mixed funding model with five streams of funding that together give us a turnover of around £6M. We expect this turnover to increase to around £7.5M over the five years of this strategy.

- **Sector programmes** are funded through a combination of grant funding (from public sector and philanthropic bodies) and commercial support from the companies that take part. This will make up 15% of our revenue (£1M) in 2018, all of which is grant funding. We expect this to remain at 15% of our revenue over the next five years (£1.2M), but with the proportion of funding from commercial sources to increase within the sector programmes we take on.

- **Research and development funding** is important to us as an institute, and forms the basis of a significant amount of our

practical advocacy, both through supporting the development of products (tools, checklists, training materials) and engagement with the network. Thanks to funding from the UK government and ongoing H2020 projects, this will be about 55% of our revenue in 2018 (£3.2M). We are aiming for this to decrease to about 30% of our revenue (£2.5M) over the next five years, as we shift the balance of our activities more towards work with commercial organisations.

- **Consultancy projects** make up the other side of our practical advocacy work, enabling us to work directly with private and public sector organisations, develop and support good practice within those organisations as well as understanding their needs and developing our products. Charging for this work ensures that it is valued by, and more

likely to bring a lasting impact to, these organisations, as well as helping to support our core operations. These will make up about 15% of our revenue (£1M) in 2018. We expect this to increase to 25% of our revenue (£1.8M) over the next five years as we invest in developing this work.

- **Partners and members** are self-funded peer networks. Partners are larger corporates with whom we have long term relationships and work on specific projects, while members are smaller organisations and individuals who support ODI's mission. These will make up about 5% of our revenue in 2018 (£0.4M). We are aiming for this to increase significantly over the next five years to 15% of our revenue (£1.2M) as we increase the number of commercial partners.

- **Core and unrestricted funding** supports the core operations of ODI, including public policy and communications work that helps to further our mission, and helps to support grant-funded work that does not cover overheads. This will make up 10% of our revenue (£0.6M) in 2018. We are aiming for this to increase to about 15% of our revenue over the next five years (£1M) from public and philanthropic sources.

Photo: (Opposite) ODI Summit 2015

Manifesto

1

INFRASTRUCTURE: Sectors and societies must invest in and protect the data infrastructure they rely on.

Open data is the foundation of this emerging vital infrastructure.

2

CAPABILITY: Everyone must have the opportunity to understand how data can be and is being used.

We need data literacy for all, data science skills, and experience using data to help solve problems.

3

INNOVATION: Data must inspire and fuel innovation. It can enable businesses, startups, governments, individuals and communities to create products and services, fuelling economic growth and productivity.

4

EQUITY: Everyone must benefit fairly from data.

Access to data and information promotes fair competition and informed markets, and empowers people as consumers, creators and citizens.

5

ETHICS: People and organisations must use data ethically.

The choices made about what data is collected and how it is used should not be unjust, discriminatory or deceptive.

6

ENGAGEMENT: Everyone must be able to take part in making data work for us all.

Organisations and communities should collaborate on how data is used and accessed to help solve their problems.

Get in touch

If you would like to talk to us about **collaborating, partnering, supporting our work**, or anything else, we'd love you to get in touch.

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