

# Industrial Strategy Sector Mapping Guide V2, Feb 2025



# Executive Summary

Thank you for your feedback. We heard from partners from across central government, combined authorities, devolved nations and the private sector. We have incorporated as much of this feedback as possible into version 2 of this guide. A change log is included in Annex 2, following detail on our methodology.

This second iteration of our sector mapping incorporates feedback from government and industry to address the lack of shared definitions for frontier economy sectors, reducing inefficiencies, improving cluster identification, and enabling more effective funding and policy decisions.

Digital and Technology overlaps with the remaining Industrial Strategy sectors to the greatest degree and we believe, in particular AI and Data Infrastructure, has a role as an enabling sector. We also identify the importance of Advanced Manufacturing and Research and Consulting in achieving growth across all sectors.

The Foundational Economy requires consideration too. Financial Services is an established sector with many appropriate SIC codes. The issue of companies self-declaring their SIC code remains. We're working to understand the impact of RSICs – a machine learning based approach to assigning companies SIC codes.

The final version of this guide will include a definitive mapping based on your feedback. This will be available on our platform for our users. However, the mapping will be most effective if RTICs were published as open data and we are keen to explore how we can do this.

## Get Involved

This mapping exists to serve as the starting point of a discussion on definitively defining these sectors and to power preliminary analysis. This is version 2 and updates to the mapping, and the included spreadsheet, will be available to download at: [thedatacity.com/invest-2035-guide](https://thedatacity.com/invest-2035-guide). A shared approach to analysing the Modern Industrial Strategy is only possible with feedback and engagement. Feedback is welcomed and can be sent to: [Invest2035@thedatacity.com](mailto:Invest2035@thedatacity.com).

# Defining a Modern Industrial Strategy

Places seeking to bid for central funding support are forced to conduct their own mapping of sectors for their bids and central funding teams are faced with each region defining sectors in different ways. This can lead to every region feeling compelled to claim they are world leading in every sector, as defined by them. We're hoping to help national and local government, academia and industry to approach this in a more efficient way.

The problem? The lack of shared definitions for frontier economy sectors, such as Advanced Manufacturing and AI, has led to a fragmented and inefficient sector mapping process:

1. Each sector is mapped multiple times, wasting significant resources.
2. Inconsistent taxonomies and methodologies produce widely varying results.
3. Without a shared understanding, national and local government struggle to identify and support genuine sector clusters.
4. Measuring the impact of funding and interventions becomes difficult.
5. Regions feel pressured to bid for everything, rather than specialising in their real areas of strength.

Following the release of [Invest 2035: The UK's Modern Industrial Strategy](#) Green paper, we have been working with our clients and [The Productivity Institute \(TPI\)](#) to develop an early view of the scale and distribution of these key sectors. Through collaboration we aim to address three critical questions raised in the strategy:

1. How should the UK government identify the most important subsectors for delivering our objectives?
2. How should the UK government account for emerging sectors and technologies for which conventional data sources are less appropriate?
3. How should the UK government incorporate foundational sectors and value chains into this analysis?

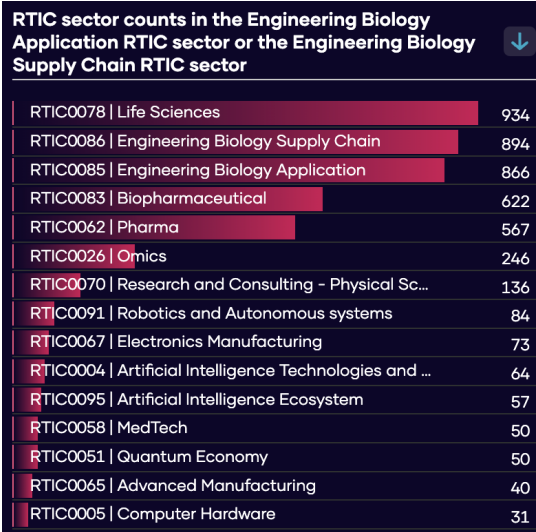
## Our Data & Platform

At The Data City, we classify companies based on what they actually do, using real-time analysis of website text and machine learning, rather than outdated SIC codes. This revolutionary approach allows users to map, measure and understand emerging economies with far greater accuracy.

Our platform holds data on over 5 million UK companies and more than 100 million companies worldwide. With 400+ sector classifications (RTICs), it gives a clear view of modern industries, revealing trends and growth areas that traditional methods overlook.

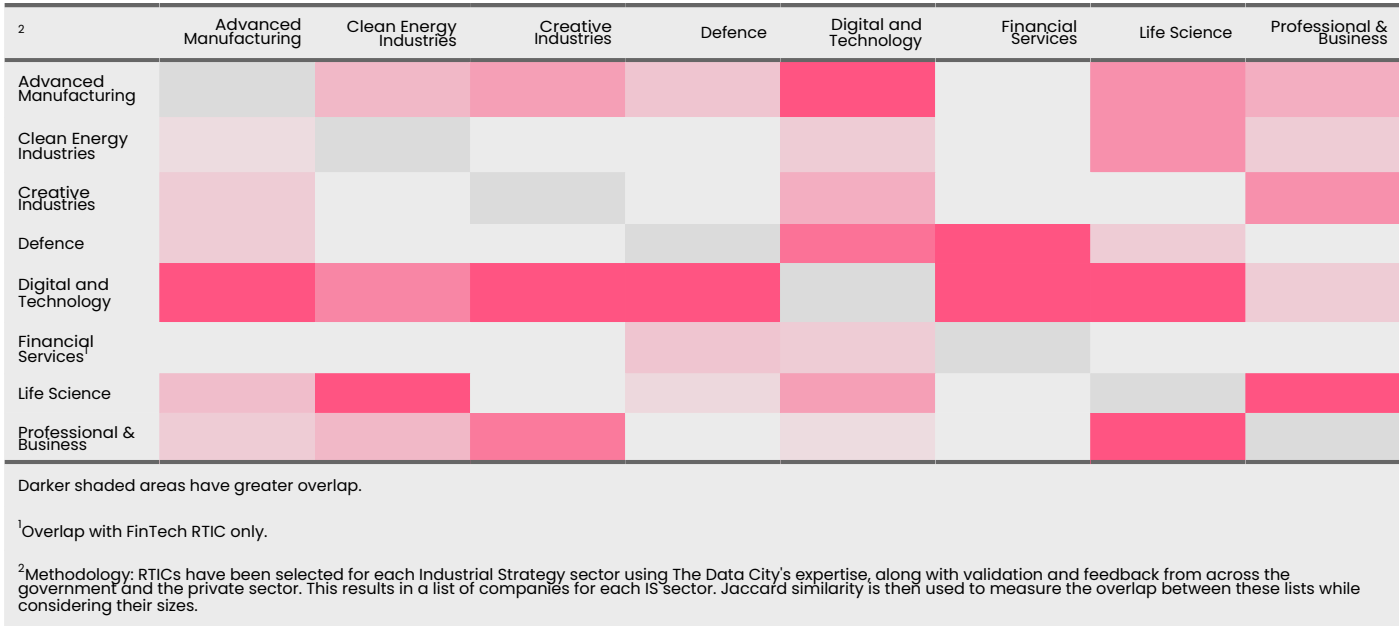
# A Data Driven Approach to Mapping the Industrial Strategy Sectors

Engineering Biology is an application of technology, Advanced Manufacturing and Life Sciences and the feedback we received reflected this. There was a rich discussion of where Engineering Biology should sit. As well as using your feedback, our expertise on RTICs and their taxonomies, we wanted to consider a data driven approach to the selection of RTICs.



Our RTIC team believes that Engineering Biology is primarily a Life Sciences industry. The chart to the left is an extract from The Data Citys platform, and shows the business count by RTIC. There are approximately 1600 companies across both Engineering Biology RTICs. The chart shows the majority (934) of these companies are also in the Life Sciences RTIC.

The chart also communicates a key point: **companies operate across multiple sectors**. So Industrial Strategy sectors are not mutually exclusive. The table below explores this further and compares the overlap between the Industrial Strategy sectors, based on the RTICs that have been selected for each sector. It **demonstrates the role of Digital and Technology as an enabling sector, with strong overlap across all Industrial Strategy sectors**. If you're interested in the numbers behind this visualisation please get in touch.



# The Role of Advanced Manufacturing, AI and Data Infrastructure

The approach that we've used – assigning RTICs into Industrial Strategy sectors – allows us to dig deeper. For example, we can understand the relative size of each of the subsectors, or we can consider the overlap between individual RTICs and Industrial Strategy sectors.

We analyse the overlap between each RTIC and the Industrial Strategy sectors. We rank the results and we present the RTICs that consistently rank highly in the table below. We include Engineering Biology RTICs as a comparison. Interpreting the table allows us to see that **AI Technologies and Applications** is the RTIC with strongest overlap with **Advanced Manufacturing**. Likewise, the **Advanced Manufacturing** RTIC is the RTIC with the 3rd most overlap with **Creative Industries**. In the latter example, these are companies who work with immersive technologies, or build digital twins.

RTIC	Advanced Manufacturing	Clean Energy Industries	Creative Industries	Defence	Digital and Technology	Financial Services	Life Science	Professional & Business
Advanced manufacturing (RTIC0065)	b	13	3	8	3	9	6	5
Artificial Intelligence Technologies and Applications (RTIC0004)	1	7	10	6	b	3	3	21
Artificial Intelligence Ecosystem (RTIC0095)	8	14	13	7	b	2	7	23
Data infrastructure (RTIC0007)	7	9	8	10	b	6	12	25
Engineering Biology Supply Chain (RTIC0086) <sup>a</sup>	24	36	40	25	24	30	b	27
Engineering Biology Application (RTIC0085) <sup>a</sup>	38	23	46	49	30	47	b	13

<sup>a</sup>Presented for comparison.

<sup>b</sup>RTIC is included in this Industrial Strategy sector. Overlap is not calculated.

However, the table also shows that the **Advanced Manufacturing** RTIC has the most consistent overlap with Industrial Strategy sectors. Compared to the table on the previous page, this reveals an underlying relationship for Advanced Manufacturing – we include other RTICs into the Advanced Manufacturing Industrial Strategy sector, which do not overlap to the same degree. Similarly, the specific technologies that contribute strongly to Digital and Technologies' overlap are AI and Data Infrastructure.


So far we have considered the overlap between Industrial Strategy sectors, based on the RTICs within them. Sectors like Financial Services are more established and are better captured through SIC codes. The issue of classification still remains. Companies can make mistakes in choosing, or fail to update, their SIC codes.



# Machine Learning Classification for the Foundational Economy


We're exploring ways of using Machine Learning to improve analysis of Foundational Economy sectors, like Financial Services. We've used Artificial Intelligence and companies' website text to classify companies, based on what they do, rather than what they declare they do. This is Real-time SIC (RSIC).

Veolia is a waste management company and one of the largest in Europe. They declare that they perform 'activities of head offices' and 'other service activities'. Using RSICs, we can see they collect, treat and dispose of non-hazardous waste and recycle. RSICs follow the same structure as SIC, but use machine learning to classify companies.


**VEOLIA ENVIRONMENTAL SERVICES GROUP (UK) LIMITED**

Company number: [02215767](#)
 Incorporation date: 1st February 1988
 Registered postcode: N1 9JY

Company status: **Active**



**Website**  
[www.veolia.co.uk](http://www.veolia.co.uk)

**Description**  
 Veolia delivers ecological transformation for its customers through decarbonisation, depollution, and resource generation.



**SICs**  
 70100: Activities of head offices  
 96090: Other service activities n.e.c.


**RSICs**

- 38110: Collection of non-hazardous waste
- 38210: Treatment and disposal of non-hazardous waste
- 39000: Remediation activities and other waste management services
- 38320: Recovery of sorted materials

**RTICs**  
 Net Zero: Diversion of Biodegradable Waste from Landfill, Renewable Energy Planning Database, Waste Management and Recycling  
 Land Remediation: Remediation Services

**CICs**  
 CBI Midlands Engine: Circular Economy, Industrial Decarbonisation , Land Remediation

Innovation score (ALPHA) 
 Estimated turnover   
 £2,007,544,208

Estimated employee count   
 11,797

What companies say they do can differ from what they actually do, and the impact of this at scale is something we're looking into. We do, however, think that RSICs will help analysis of Foundational Economy sectors. To begin understanding the impact we've provided a list of appropriate RSICs for each Industrial Strategy sector. This is a small adaptation to the methodology that we developed with TPI. More detail on that methodology is in Annex 1.

# 1. Advanced Manufacturing

RTIC <sup>1</sup>	RSIC	Description	MethodOfSelection
1. Advanced manufacturing 2. Design and Modelling Technologies 3. Advanced Materials 4. Robotics and Autonomous systems 5. Electronics Manufacturing 6. Space Autonomy and Robots 7. In-Orbit Servicing and Manufacturing	71129	Other engineering activities	Well represented in RTIC
	25990	Manufacture of other fabricated metal products n.e.c.	Well represented in RTIC
	32990	Other manufacturing n.e.c.	Well represented in RTIC
	25620	Machining	Well represented in RTIC
	71122	Engineering related scientific and technical consulting activities	Well represented in RTIC
	25110	Manufacture of metal structures and parts of structures	Well represented in RTIC
	71121	Engineering design activities for industrial process and production	Well represented in RTIC
	22290	Manufacture of other plastic products	Well represented in RTIC
	25610	Treatment and coating of metals	Well represented in RTIC
	46720	Wholesale of metals and metal ores	Well represented in RTIC
	28990	Manufacture of other special-purpose machinery n.e.c.	Well represented in RTIC
	26511	Manufacture of electronic measuring, testing etc. equipment, not for industrial process control	Well represented in RTIC
	27900	Manufacture of other electrical equipment	Well represented in RTIC
	26110	Manufacture of electronic components	Well represented in RTIC
	25730	Manufacture of tools	Well represented in RTIC
	26120	Manufacture of loaded electronic boards	Well represented in RTIC
	28490	Manufacture of other machine tools	Well represented in RTIC
	95210	Repair of consumer electronics	Well represented in RTIC
	26512	Manufacture of electronic industrial process control equipment	Well represented in RTIC
	95120	Repair of communication equipment	Well represented in RTIC

<sup>1</sup>RTIC codes are available in the attached excel workbook. More information on the subsectors within these RTICs is available at: [thedatacity.com/rtics/](https://thedatacity.com/rtics/).



## 2. Clean Energy Industries

RTIC <sup>1</sup>	RSIC	Description	MethodOfSelection
1. Battery Supply Chain 2. Clean tech 3. Net zero 4. Energy management 5. Energy generation <sup>2</sup>	74901	Environmental consulting activities	Well represented in RTIC
	43210	Electrical installation	Well represented in RTIC
	35110	Production of electricity	Well represented in RTIC
	74909	Other professional, scientific and technical activities n.e.c.	Well represented in RTIC
	38110	Collection of non-hazardous waste	Well represented in RTIC
	39000	Remediation activities and other waste management services	Well represented in RTIC
	38210	Treatment and disposal of non-hazardous waste	Well represented in RTIC
	38320	Recovery of sorted materials	Well represented in RTIC
	35140	Trade of electricity	Well represented in RTIC
	38120	Collection of hazardous waste	Well represented in RTIC

<sup>1</sup>RTIC codes are available in the attached excel workbook. More information on the subsectors within these RTICs is available at: [thedatacity.com/rtics/](https://thedatacity.com/rtics/).

<sup>2</sup>All verticals except Fossil Fuels.

# 3. Creative Industries

RTIC <sup>1</sup>	RSIC	Description	MethodOfSelection
1. Digital Creative 2. Agency market 3. Gaming 4. Immersive technology 5. Media & Publishing 6. Adtech	73110	Advertising agencies	Well represented in RTIC
	62090	Other information technology service activities	Well represented in RTIC
	74100	specialised design activities	Well represented in RTIC
	62020	Information technology consultancy activities	Well represented in RTIC
	59112	Video production activities	Well represented in RTIC
	90030	Artistic creation	Well represented in RTIC
	62012	Business and domestic software development	Well represented in RTIC
	59111	Motion picture production activities	Well represented in RTIC
	59113	Television programme production activities	Well represented in RTIC
	18129	Printing n.e.c.	Well represented in RTIC
	70210	Public relations and communications activities	Well represented in RTIC
	59120	Motion picture, video and television programme post-production activities	Well represented in RTIC
	90020	Support activities to performing arts	Well represented in RTIC
	73120	Media representation services	Well represented in RTIC
	59200	Sound recording and music publishing activities	Well represented in RTIC
	58190	Other publishing activities	Well represented in RTIC
	62011	Ready-made interactive leisure and entertainment software development	Well represented in RTIC
	17230	Manufacture of paper stationery	Well represented in RTIC
	18140	Binding and related services	Well represented in RTIC
	58210	Publishing of computer games	Well represented in RTIC

<sup>1</sup>RTIC codes are available in the attached excel workbook. More information on the subsectors within these RTICs is available at: [thedatacity.com/rtics/](https://thedatacity.com/rtics/).

## 4. Defence

RTIC	RSIC	Description	MethodOfSelection
1. Marine& maritime – Defence 2. Cyber 3. Defence	62020	Information technology consultancy activities	Well represented in RTIC
	62090	Other information technology service activities	Well represented in RTIC
	62012	Business and domestic software development	Well represented in RTIC
	62030	Computer facilities management activities	Well represented in RTIC
	80200	Security systems service activities	Well represented in RTIC
	61900	Other telecommunications activities	Well represented in RTIC
	80100	Private security activities	Well represented in RTIC
	33150	Repair and maintenance of ships and boats	Well represented in RTIC
	95110	Repair of computers and peripheral equipment	Well represented in RTIC
	52220	Service activities incidental to water transportation	Well represented in RTIC
	84220	Defence activities	Manual
	30110	Building of ships and floating structures	Manual
	30300	Manufacture of air and spacecraft and related machinery	Manual
	30400	Manufacture of military fighting vehicles	Manual
	84210	Foreign affairs	Manual
	25400	Manufacture of weapons and ammunition	Manual

# 5. Life Sciences



RTIC <sup>1</sup>	RSIC	Description	MethodOfSelection
1. Engineering Biology Application 2. Engineering Biology Supply Chain 3. Life science 4. Biopharma 5. Medtech 6. Pharma 7. Omics 8. Agritech 9. Neurotechnology	86900	Other human health activities	Well represented in RTIC
	74909	Other professional, scientific and technical activities n.e.c.	Well represented in RTIC
	86220	Specialists medical practice activities	Well represented in RTIC
	86210	General medical practice activities	Well represented in RTIC
	72110	Research and experimental development on biotechnology	Well represented in RTIC
	86230	Dental practice activities	Well represented in RTIC
	72190	Other research and experimental development on natural sciences and engineering	Well represented in RTIC
	74901	Environmental consulting activities	Well represented in RTIC
	46460	Wholesale of pharmaceutical goods	Well represented in RTIC
	86101	Hospital activities	Well represented in RTIC
	32500	Manufacture of medical and dental instruments and supplies	Well represented in RTIC
	47730	Dispensing chemist in specialised stores	Well represented in RTIC
	21100	Manufacture of basic pharmaceutical products	Manual
	21200	Manufacture of pharmaceutical preparations	Manual

<sup>1</sup>RTIC codes are available in the attached excel workbook. More information on the subsectors within these RTICs is available at: [thedatacity.com/rtics/](https://thedatacity.com/rtics/).

# 6. Digital and Technology

RTIC <sup>1</sup>	RSIC	Description	MethodOfSelection
1. Foodtech	62090	Other information technology service activities	Well represented in RTIC
2. Artificial Intelligence Technologies and Applications			
3. Artificial Intelligence Ecosystem	62020	Information technology consultancy activities	Well represented in RTIC
4. Cloud Computing			
5. Computer Hardware	62012	Business and domestic software development	Well represented in RTIC
6. Internet of Things			
7. Data infrastructure			
8. Data intermediary	61900	Other telecommunications activities	Well represented in RTIC
9. Edtech			
10. Geospatial technologies			
11. Space	63110	Data processing, hosting and related activities	Well represented in RTIC
12. Quantum technology			
13. Quantum Economy			
14. Sensors	61100	Wired telecommunications activities	Well represented in RTIC
15. Photonics			
16. Software as a Service			
17. Software development	61200	Wireless telecommunications activities	Well represented in RTIC
18. Streaming			
19. Telecommunication			
20. Wearables and Quantified self	62030	Computer facilities management activities	Well represented in RTIC
21. FemTech			
22. Future Telecoms Supply Chain			

<sup>1</sup>RTIC codes are available in the attached excel workbook. More information on the subsectors within these RTICs is available at: [thedatacity.com/rtics/](https://thedatacity.com/rtics/).

# 7. Professional and Business Services

RTIC <sup>1</sup>	RSIC	Description	MethodOfSelection
1. Research & Consulting 2. B2B Services	7111	Architectural activities	Well represented in RTIC
	70229	Management consultancy activities other than financial management	Well represented in RTIC
	74909	Other professional, scientific and technical activities n.e.c.	Well represented in RTIC
	41100	Development of building projects	Well represented in RTIC
	71129	Other engineering activities	Well represented in RTIC
	41202	Construction of domestic buildings	Well represented in RTIC
	71122	Engineering related scientific and technical consulting activities	Well represented in RTIC
	74100	specialised design activities	Well represented in RTIC
	71112	Urban planning and landscape architectural activities	Well represented in RTIC
	72110	Research and experimental development on biotechnology	Well represented in RTIC
	73200	Market research and public opinion polling	Well represented in RTIC
	72190	Other research and experimental development on natural sciences and engineering	Well represented in RTIC
	58141	Publishing of learned journals	Well represented in RTIC
	69101	Barristers at law	Manual
	69102	Solicitors	Manual
	69201	Accounting and auditing activities	Manual
	69202	Bookkeeping activities	Manual
	69203	Tax consultancy	Manual
	70210	Public relations and communications activities	Manual

<sup>1</sup>RTIC codes are available in the attached excel workbook. More information on the subsectors within these RTICs is available at: [thedatacity.com/rtics/](https://thedatacity.com/rtics/).

# 8. Financial Services

RTIC <sup>1</sup>	RSIC	Description	MethodOfSelection
1. Fintech	64999	Financial intermediation not elsewhere classified	Well represented in RTIC
	62012	Business and domestic software development	Well represented in RTIC
	62090	Other information technology service activities	Well represented in RTIC
	62020	Information technology consultancy activities	Well represented in RTIC
	66190	Activities auxiliary to financial intermediation n.e.c.	Well represented in RTIC
	66300	Fund management activities	Well represented in RTIC
	64929	Other credit granting n.e.c.	Well represented in RTIC
	66120	Security and commodity contracts dealing activities	Well represented in RTIC
	64921	Credit granting by non-deposit taking finance houses and other specialist consumer credit grantors	Well represented in RTIC
	64192	Building societies	Manual
	64201	Activities of agricultural holding companies	Manual
	64302	Activities of unit trusts	Manual
	64303	Activities of venture and development capital companies	Manual
	64304	Activities of open-ended investment companies	Manual
	64305	Activities of property unit trusts	Manual
	64306	Activities of real estate investment trusts	Manual
	64910	Financial leasing	Manual
	64991	Security dealing on own account	Manual
	64992	Factoring	Manual
	65201	Life reinsurance	Manual
	65202	Non-life reinsurance	Manual
	65300	Pension funding	Manual
	66110	Administration of financial markets	Manual
	66210	Risk and damage evaluation	Manual
	66220	Activities of insurance agents and brokers	Manual
	64191	Banks	Manual
	70221	Financial Management	Manual

<sup>1</sup>RTIC codes are available in the attached excel workbook. More information on the subsectors within these RTICs is available at: [thedatacity.com/rtics/](https://thedatacity.com/rtics/).



# Annex 1. Methodology

The Data City's RTICs have been largely created in collaboration with government or industry experts. This positions us well in creating consensus around the sectors identified in the Industrial Strategy Green paper, since cross-government thinking is represented within the existing RTICs and existing analysis. The Data City and TPI have reviewed the currently available RTICs and have created suggested groupings for each of the Industrial Strategy sectors.

We recognise that Standard Industrial Classifications (SIC), although flawed for classifying the emerging economy, have merit and are widely used. For example, SIC codes allow for linking to Official Statistics as well as international comparisons. SICs are flawed in defining emerging economy sectors given the frequency at which they are updated.

Each company in an RTIC also has at least one SIC or RSIC code. The SIC is self-declared, the RSIC is derived from the company's website text and uses machine learning. Therefore, each RTIC has a large list of distinct SIC (RSIC) codes that are used by companies. The SIC (RSIC) codes vaguely describe the sector when combined together, but the more popular SIC (RSIC) codes will contribute to a better description of the RTIC.

For this reason TPI and The Data City have developed a methodology for identifying SIC (RSIC) codes that are well represented within an RTIC. This approach finds significant concentrations of companies within specific SICs (RSICs), enabling us to identify overrepresented SICs (RSICs) in an RTIC. To do this, we compare the proportion of the SICs (RSICs) found nationally, with the proportion found in the RTIC. Additionally, we consider the raw percentage of companies associated with each SIC (RSIC). To ensure accuracy, we normalise the data and highlight the SICs that show significant representation.

## Annex 2. Change Log

The change log below shows the changes in mapping between V1 and V2 of this guide. A number of new sectors have been launched on our platform in collaboration with partners such as DSIT and DBT. These have been included in V2.

Sector	Change
Defence	<ul style="list-style-type: none"> <li>• The Data City have mapped the foundations of the defence sector with the creation of a new RTIC. We're exploring how we expand this further with the Midlands Engine.</li> </ul>
Digital and Technology	<ul style="list-style-type: none"> <li>• We expanded the view of the sector by including recently launched RTICs such as Artificial Intelligence Ecosystems and Future Telecoms Supply Chain. These RTICs were created in collaboration with DSIT.</li> <li>• FemTech was added.</li> <li>• We moved Robotics and Autonomous Systems to Advanced Manufacturing</li> </ul>
Advanced Manufacturing	<ul style="list-style-type: none"> <li>• We relaunched our Advanced Materials RTIC, through work with DSIT.</li> <li>• We've included Robotics and Autonomous Systems, Electronics Manufacturing and Space sector manufacturing.</li> </ul>
Life Sciences	<ul style="list-style-type: none"> <li>• We added Engineering Biology: Applications and Supply Chain.</li> <li>• The manually selected SICs have been expanded, with help from SCL.</li> </ul>
Clean Energy Industries	<ul style="list-style-type: none"> <li>• Inclusion of Battery Supply Chains, recently created in collaboration with DBT.</li> </ul>
Financial Services	<ul style="list-style-type: none"> <li>• We have expanded the definition, using further manually selected SIC codes.</li> </ul>