

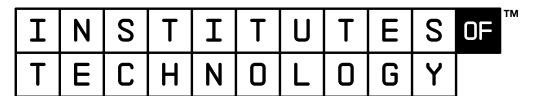


Department  
for Education



# WAVE TWO PROSPECTUS

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# Foreword



**Gavin Williamson**

The Government is committed to raising the quality and prestige of technical education which, alongside academic education, will play a pivotal role in raising growth and productivity in our economy and delivering the skills our country needs following our departure from the European Union.

The world of work is changing fast, driven by new and disruptive technologies. As job roles change and new ones are created, businesses in many sectors increasingly need individuals with higher technical skills to improve their productivity and growth. Over the coming years, these skills will become more important if British business is to seize on the opportunities of technological change.

As well as investing in new T Levels, this Government is creating new progression routes into higher technical education and beyond. Institutes of Technology – IoTs – will be critical to delivering on that ambition.

By bringing together Further Education and Higher Education providers with employers, IoTs can deliver the technical knowledge combined with the practical workplace skills that employers are demanding, unlocking the potential of our home-grown talent and ensuring they are equipped with the skills of tomorrow.

We have already announced the first wave of twelve IoTs, each one investing in state-of-the-art facilities to train the next generation of technicians and engineers. They will be backed by a range of multi-national, and local employers. The incredible potential of IoTs is already beginning to show. Some examples include:

- the Black Country and Marches IoT, which is equipping people with the skills in advanced manufacturing and modern construction methods that will drive future growth across the West Midlands;
- the South West IoT, which is creating digital learning laboratories, artificial intelligence arenas and augmented reality environments to enable the South West to become a world leader in digital technologies; and
- the Yorkshire and Humber IoT, which will train people in precision farming technologies to make farming more sustainable economically and environmentally.

The benefits of IoTs should be felt nationwide. That is why this Government has made available an extra £120m, to enable us to open an IoT in every part of the country. This will ensure everyone has the chance to gain the higher technical skills they and the economy need, helping to level up opportunity and unlock growth everywhere.

# Introduction

This prospectus provides an outline of the Wave Two IoT Programme Competition. It sets out information for potential bidders about the IoT Programme, the planned second competition, and our expectations about what good proposals would look like.

Institutes of Technology form a key part of the Government's wider reforms to equal any technical education system. Our [recent consultation](#) on higher technical education set out how IoTs will play a key role in delivering an improved higher technical education system; encouraging more individuals to continue to study after completing T Levels or A Levels; and attract workers of all ages looking to upskill and retrain.

IoTs are the [Government's flagship programme](#) designed to spearhead the delivery of higher technical education in STEM subjects. IoTs are bringing together employers with FE Colleges and Universities into a new type of prestigious institution.

They will be equipping businesses with the skills they need. In doing so, they will be helping to level up skills across the country; offering an accessible route into high wage and high skilled employment for people in cities, towns, rural and coastal areas.

They will also equip our local economies with a skilled workforce that can drive productivity, take advantage of key growth opportunities and deliver major infrastructure projects including hospitals, schools, transport and digital projects.

The Government plans to deliver a comprehensive national network of employer-led IoTs throughout England. The network is intended to achieve nationwide coverage across all regions.

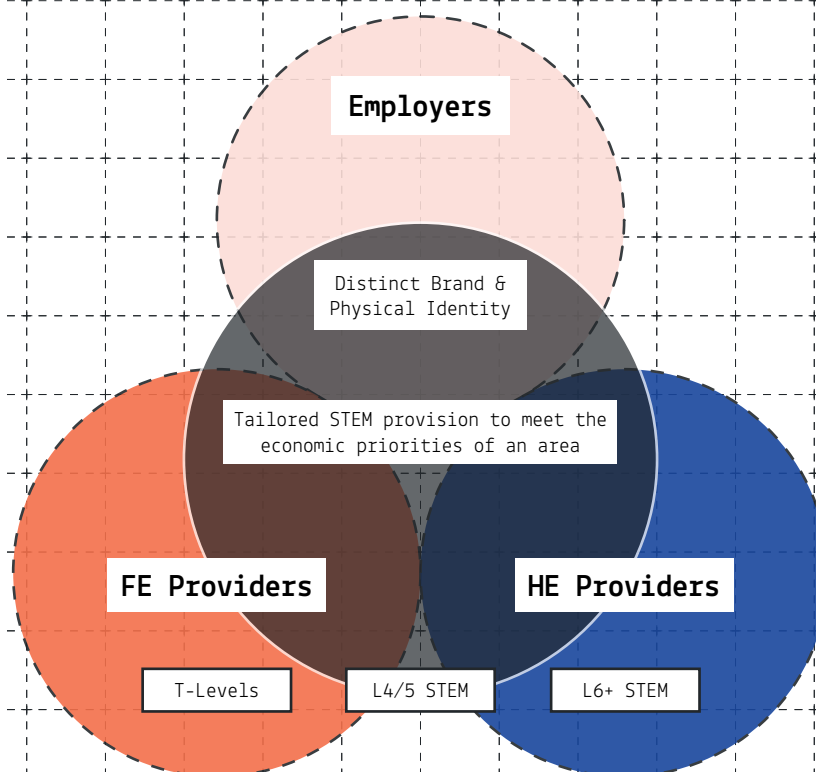
The first wave of 12 IoTs are being established across the country. Government has been impressed with the high quality of these proposals including the depth of employer engagement and the ambitious higher technical education offer, which will address some of the key future economic challenges including the roll out of the Fourth Industrial Revolution.

We are planning to launch a second IoT Competition shortly. The Competition will select eight new IoTs, that will complement the first 12 IoTs announced in [April 2019](#). The competition will only be open to proposals that cover Local Enterprise Partnership (LEP) areas that currently do not have an IoT. All proposals will need to achieve the high quality standard that Wave One IoTs met.

## What is an Institute of Technology?

IoT's are a new type of institution, with a prestigious and distinct identity delivering higher level technical education with a clear route to high skilled employment. IoT's will strengthen and grow provision to help bridge a vital skills gap in our economy in areas like advanced manufacturing, infrastructure and digital, and strengthen routes into higher levels of education or directly into employment.

IoT's are collaborations between employers, further education colleges and universities. IoT's draw on the assets of existing high-quality providers to form a distinct and prestigious entity that can attract learners and a range of employers. Employers play a key role in the IoT's governance, leadership as well as the design and delivery of the curriculum.



IoT's are designing and delivering a new learning offer. The offer is helping to meet demand for higher technical skills today and creating a workforce that is ready for future technological change and changing working practices. To do this, IoT's are leveraging their research and innovation bases; tapping into applied research in universities, research centres and innovation centres including Catapults.

IoT's are being developed at a sufficient geographical scale. At the right scale, IoT's can make a demonstrable impact in meeting the higher technical skills and productivity challenges of today and the future. In order to achieve sufficient scale, IoT's will focus on delivering the higher technical STEM skills that their area needs.

The appropriate scale and offer of IoT's will vary for different areas, but all are designed to contribute to the core objectives of the IoT programme, to:

1. Significantly increase the number of learners with higher technical skills which are crucial to national, regional and local productivity growth;
2. Attract a wide range of learners to maximise the social as well as the economic impact of this new type of institution; and
3. Improve the occupational competency of learners to meet the needs of employers now and in the future.

Meeting these objectives offers a clear route to high skilled, high wage employment and will help boost social mobility across England, raising the prestige of technical education so that it is a credible high-quality complement to purely academic routes.



## Why do we need Institutes of Technology?

[Evidence suggests](#) there are key sectors such as manufacturing, engineering and transport with an acute shortage of technician level STEM skills while the Fourth Industrial Revolution will require skills in artificial intelligence, data and innovative technologies.

However, there are a number of barriers to delivering high quality higher technical education in STEM disciplines, especially those that require upfront capital investment. The IoT programme is being established to increase the supply of high quality higher technical STEM education and tackle barriers including:

- Small learner catchment: recruiting from smaller, local catchment areas which limits the pool of available learners makes it difficult to make higher level courses cost-effective.
- Cost of delivery: high cost of attracting the right calibre staff and procuring industry standard equipment that higher technical STEM subjects require.
- Employer engagement: it is difficult to engage major employers in developing a quality learning offer if an institution has a broad curriculum.
- Competition: individual institutions can often be competing against each other for learners rather than a collaborative approach that draws on each other's strengths and allows each institution to focus on its specialisms.

IoT's are being setup to address these barriers and challenges. IoT's build on and complement the further and higher education currently on offer.

IoT's will provide a natural progression route for young people taking T Levels or A Levels (Level 3) enabling them to take the next step to higher level technical education and training (Level 4 and 5). IoT's will have their own distinct identity, physical presence, and will be reasonably accessible to people in their catchment area.



## What do Institutes of Technology offer to learners, employers and the economy?

### Benefits for learners

IoT will play an important role in levelling up skills across the country. Regardless of where they live, learners will have access to a new type of prestigious institution that is actively backed by employers. IoT will deliver high quality, higher technical skills, improving learners' chances of securing jobs that offer higher wages and increased opportunities. This includes widening participation from disadvantaged and under-represented groups by making full use of new technology and innovative models of delivery to provide a responsive and flexible offer that is accessible to all.

### Benefits for employers

Employers involved in the IoT collaboration will have the opportunity to 'home-grow' their future workforce and upskill their current one, shaping the curriculum to best suit their needs, adopting agile approaches to ensure industry trends are quickly translated into the classroom. Large and small employers will benefit from having a new type of employer-led institution on their doorstep that can train their current and future workforce.

### Benefits for the local, regional and national economy

IoT will play a key role in helping to level up growth and opportunity across our cities, towns and rural and coastal areas. IoT has the potential to strengthen local economies, unlocking a talented pool of people with the skills needed to take advantage of the growth opportunities of the future and deliver the Government's major infrastructure projects such as hospitals, schools, transport and digital projects.





## What will make a good Institute of Technology proposal?

We expect all IoTs to meet the following critical success factors:

**Strong employer engagement in governance and leadership as well as the design and delivery of the curriculum.** The role of employers is crucial to the success of IoTs, and we expect them to be at the heart of an IoT's leadership and governance, to ensure the Institution can focus on delivering a skilled workforce ready for employment both now and in the future. This should extend to the design and delivery of the IoT curriculum, resulting in direct links between teaching, learning and industry needs, and a learning offer that is agile and responsive to employer needs.

**Specialise in teaching technical STEM disciplines, at Level 4 and above, creating a technical education pathway to high skilled, high wage employment.** IoTs specialise in higher technical STEM disciplines to meet the skills needs of, and provide a world-leading, homegrown talent pipeline for, the growing and diverse range of technology-enabled occupations. These span a broad range of sectors from advanced manufacturing to farming which are increasingly adopting emerging technologies that will transform the workplace and power the Fourth Industrial Revolution, such as big data, robotics and augmented reality. They will help to fulfil our ambition to create a high quality technical education pathway from T-Levels through to higher technical education.

**Offer high quality industry-relevant teaching, using industry standard facilities and equipment.** Learners have access to industry standard facilities, simulated workplace environments and dual industry/teaching professionals, who can provide real applied expertise, training in the latest techniques alongside current business and employment skills. By embedding agility into their curriculum and workforce, IoTs will be able to respond to unanticipated changes in demand.

**Be responsive and agile in meeting the current and future needs of local, regional and national industries, including upskilling the current workforce.** IoTs need to anticipate and innovate in response to current and future industrial change such as industrial digitalisation or automated manufacturing. They are able to access the applied research base of their university partners, innovation centres and employer partners to prepare the workforce for changes in technology, working practices and business models.

**Create a prestigious and distinct identity for both the institution and the offer to learners.** IoTs develop a distinctive higher technical education offer, which complements existing or planned provision in their area. The offer should play a key role in helping to widen and increase participation among under-represented groups of learners. The hallmark of an IoT is quality and innovation in the provision of higher technical skills training, offered in partnership with employers.

**Work collaboratively to harness the assets, resources and expertise of employers and FE and HE providers.** IoTs benefit from collaboration, adding value and driving innovation by harnessing each partner's strengths, ranging from assets such as facilities and equipment to relationships and resources, so that the overall delivery model is greater than the sum of its individual parts. Collaboration and working with other providers to ensure the IoT offer adds to high-quality provision already available, is key in developing an IoT bid. This should all be underpinned by a credible delivery model and legal structure that can maximise these benefits and builds upon partners' track record in collaborating together. It should also have strong support from the IoT's local LEP(s) and Combined Authority.

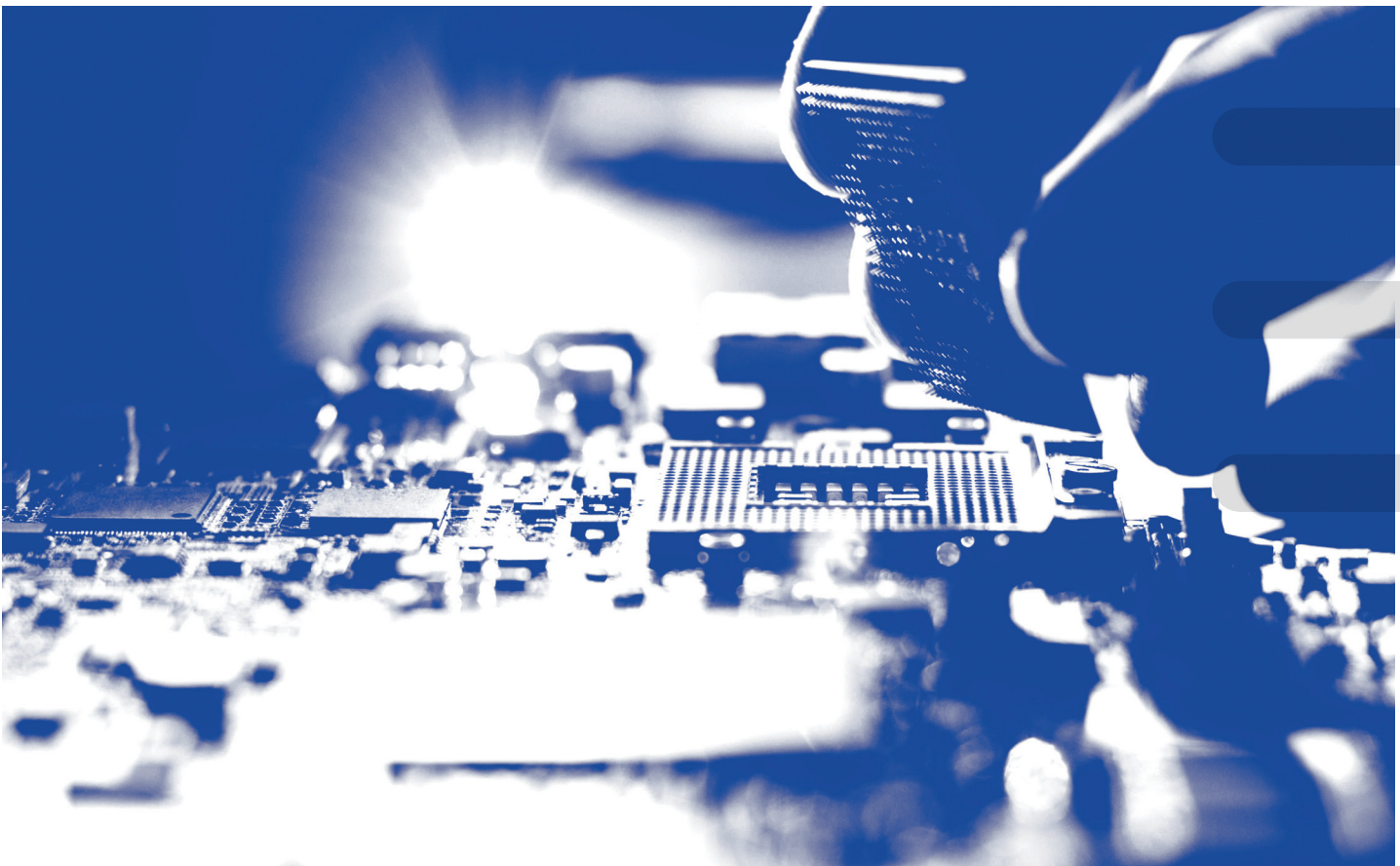
**Be financially viable, resilient and credible.** It's imperative that IoTs can develop and operate a financially sustainable and resilient business model. A core part of this is evidencing sufficient demand from learners and employers, so that they are able to finance their operations and withstand changes in the marketplace. IoTs should also be led by financially credible providers that can contribute to the setup of the IoT and have access to relevant FE and HE funding streams.

By meeting these factors, IoTs can deliver improved outcomes in the amount, quality and occupational relevance of higher technical training and widen learner participation.

### **A Network of Employer-led Technical Skills Training Institutions**

IoTs will offer employer-led higher technical education to a range of learners in high quality learning environments with the latest industry equipment across all parts of the country. DfE's aspiration is for IoTs to work together to share learning and good practice on a range of areas such as the development of their curriculum or teaching methods.

## What makes a good Institute of Technology capital project?



We expect IoTs to submit high quality capital proposals that can deliver industry-standard facilities and equipment leading to high-quality provision. Facilities should be agile enough to accommodate changing employer and learner demands. This can cover new build investment or upgrades and improvements to existing assets.

In selecting their preferred capital option IoTs will be expected to demonstrate how they have actively considered a range of options and how their preferred option delivers greatest vfm for the IoT and for Government's investment. As part of this, we will expect IoTs

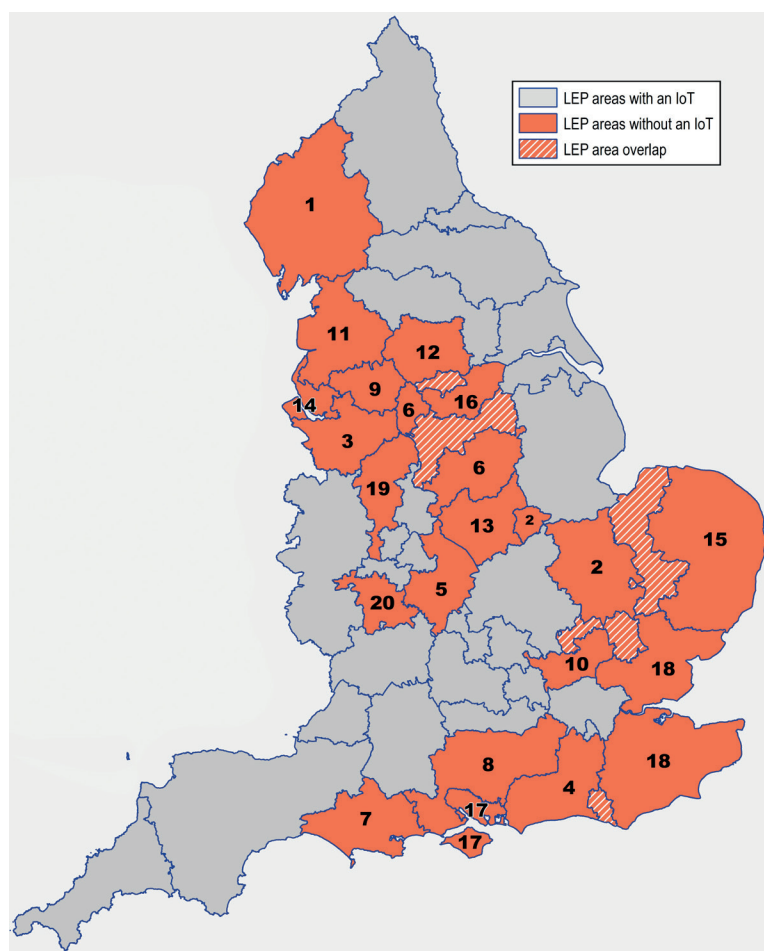
to demonstrate how their preferred options deliver against the core programme objectives including attracting a wide range of learners to maximise their social and economic impact.

The cost of any capital project will be tested against typical DfE standards on capital projects and any variance must be explained and justified. As part of this, proposals will need to demonstrate they are broadly in line with DfE cost benchmarks, the project is deliverable within the timeframe, key risks are appropriately managed and the ownership arrangements protect DfE's investment.

## Who can apply to become an Institute of Technology?

Only proposals from LEP areas that are currently not covered by an IoT will be eligible to apply to become an IoT. All applications must be a collaboration involving further education, higher education and employer partners.

### Local Enterprise Partnerships not covered by an IoT



### Local Enterprise Partnership Area without an IoT:

1. Cumbria
2. Cambridgeshire & Peterborough
3. Cheshire & Warrington
4. Coast to Capital
5. Coventry & Warwickshire
6. Derby, Derbyshire, Nottingham, Nottinghamshire (D2N2)
7. Dorset
8. Enterprise M3
9. Greater Manchester
10. Hertfordshire
11. Lancashire
12. Leeds City Region
13. Leicester & Leicestershire
14. Liverpool City Region
15. New Anglia
16. Sheffield City Region
17. Solent
18. South East
19. Stoke-on-Trent & Staffordshire
20. Worcestershire

## What are the minimum conditions proposals will need to meet?

IoT's are intended to be a high-quality and prestigious new type of institution. Proposals will be expected to meet strict minimum conditions if they are to be eligible. These conditions are essential in order to ensure that the high quality standard, and long term sustainability, of IoT's is maintained. When the competition is launched, these conditions will be set out in detail. We expect them to include the following areas.

### Collaboration

We expect proposals to be led by a collaboration of employers together with HE and FE partners who are financially credible and have a strong track record of high-quality delivery.

As in Wave One, we will expect each IoT to set out who will be the IoT's Core Partners that will setup and run the IoT. The Core Partners will include any partner who has a substantial governance and/or delivery role. We expect that only Core Partners will be eligible to receive capital funding.

Based on Wave One, we recognise that there are a variety of ways to deliver a successful IoT. This will depend on local geography and the history of collaboration between educational institutions. We expect to continue to offer IoT's flexibility on legal structure and delivery model, but proposals will be expected to clearly set out their proposed legal structure and delivery model and be able to demonstrate that their IoT can secure access to all relevant funding streams to deliver their proposed curriculum.

### Employer involvement

Successful proposals must have employers at the core of each IoT. This will ensure the institution is focused on delivering a skilled workforce ready for employment both now and in the future.

As a minimum, we expect the core employer partners to contribute to the IoT in key ways: a governance or leadership role in the IoT, designing and developing the curriculum or helping to determine the specification for the equipment and committing in-kind or cash resources towards the IoT. The competition may look to incentivise proposals to inject greater breadth and depth of employer involvement in the running of the IoT.

### Education Offer

We expect IoT's to offer a prestigious employer led alternative to academic education. This should encompass high quality industry relevant teaching in STEM technical disciplines, supported by a workforce strategy capable of attracting individuals who can teach higher technical disciplines and have relevant industry experience.

As in Wave One, we expect to require that the majority of provision provided by IoT's must be at Level 4 and above. While we anticipate some Level 3 and some Level 6+ provision, the focus is expected to be on higher technical education and training (Levels 4 and 5). We expect all provision will be in STEM technical disciplines.

To ensure each IoT has sufficient scale, IoTs will be required to demonstrate they can recruit a minimum number of learners by the final year of their Licence term.

## Geography

The IoT must be wholly located in one or more LEP areas not covered by an existing IoT. Where proposals are adjacent to each other or an existing IoT, we will expect bidders to demonstrate that their proposals are complementary and cannot be better met by the expansion of a Wave One IoT.

## Leveraging resources into IoTs

We expect that successful IoTs will leverage cash and in-kind resources to support the successful setup and development of the IoT. While the mix of capital and revenue contributions will naturally vary, we will expect all IoT proposals to secure a minimum level of match funding and we may incentivise proposals to secure a higher level of match funding.

## The Institutes of Technology Competition (Wave Two)

We are planning to launch the Wave Two Competition later in the year. The competition will take into account the lessons we have learnt from running the Wave One Competition.

We expect that the competition will run over two stages and will last around 12 months.

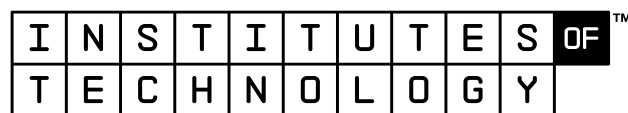
Stage 1 is expected to ask proposals to demonstrate the strategic case for their IoT and its accompanying capital projects.

Stage 2 is expected to ask proposals to provide a detailed case for their IoT including detailed information on the proposal, including financial viability, feasibility and vfm of the capital project and legal structure/delivery model.

## Awarding IoT Status

If proposals are successful in the competition, they will move into the pre-award stage, where they will finalise the Licence and Capital Funding Agreements with DfE. They will only secure IoT status once these agreements are signed.

The IoT Licence and the IoT Capital Funding Agreement will be awarded to a single legal entity that will be the Accountable Body and Licencee. The IoT Licence will give successful bidders the right to use the Government's IoT brand. Each successful bidder will be given a specific name for their IoT which will be the geographic area they cover along with the words 'Institute of Technology'. Alongside the brand design, we will also be intending to protect each of the specific IoT names. The brand is shown below:



In order to retain their licence for the full-term, IoTs will need to meet the conditions of the Licence including achieving agreed KPIs, delivering in line with their proposal and securing the proposed partner contributions (as set out during the competition).

All IoTs will receive capital funding to invest in industry-standard facilities and equipment. This will be secured through the Capital Funding Agreement.

## Registering interest

Interested parties should register their interest using the attached expression of interest form and send it to the IoT team at the Department for Education at: [institute.technology@education.gov.uk](mailto:institute.technology@education.gov.uk)

## Institutes of Technology Wave Two – Registering Interest

This expression of interest (EOI) form is for those who would like to register an interest in the Institutes of Technology (IoT) initiative. This information is for internal use, to enable the IoT team to understand what type of IoT bids we can expect to receive.

It is not a requirement to submit an EOI to take part in the Wave Two Competition. The EOI will not be assessed and we will not provide individual feedback. The EOI will have no bearing on the outcome of the competition. Individuals and organisations can complete as many sections as they wish to complete.

Once completed, please send the pro-forma to the IoT team at the Department for Education by **Monday 16th March 2020** at: [institute.technology@education.gov.uk](mailto:institute.technology@education.gov.uk)

Project information	
Lead institution	
Proposed IoT Name	
Contact for the proposal	
Title and full name	
Position	
Address for correspondence	
Phone	
E-mail	

1. Please list your proposed partners in the IoT collaboration: FE, HE and employer partners and use the “free text” box to provide any additional information.

FE Partners	
Organisation name:	

HE Partners	
Organisation name:	

Employer Partners	
Organisation name:	

Further Details (optional)

2. Please outline the proposed geographic location of your IoT and what LEP area you propose to cover and use the “free text” box to provide any additional information.

Geographical Scale	
LEP Area(s):	

IoT Delivery Location(s)	
Location 1:	
Capital Project Description:	
Refurbishment on FE/HE Estate: yes/no	
New Build on FE/HE Estate: yes/no	
Other (please describe)	
(add other locations as required)	

Further Details
<p>(Note: If your proposed IoT is adjacent to an existing IoT please use this box to say whether you have or plan to discuss your proposal with them).</p>

3. Please outline your proposed curriculum offer and fit with emerging skills needs, outlining your sectoral specialism and use the “free text” box to provide any additional information.

Proposed Curriculum Offer
<p>Please list the Sector Subject Areas the IoT intends to deliver under its curriculum offer e.g. 04. Engineering and Manufacturing Technologies.</p>





### Sectoral Specialisms

Please list the IoTs proposed sectoral specialisms

Note: The IoT will be expected to specialise in meeting the HTE skills of economically important business sectors in the area e.g. advanced manufacturing, energy, aviation etc.

### Further Details (optional)



