



Department for
Business & Trade

The Automotive Transformation Fund

Process Evaluation

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Executive Summary

Frontier Economics was commissioned in March 2023 by the Department for Business and Trade (DBT) to conduct a process evaluation of the Automotive Transformation Fund (ATF). The purpose of the process evaluation is to understand whether the ATF is being implemented as intended, whether the design is working effectively, what is working more or less well and why, and whether there any process-related changes that can be identified that could improve the delivery of the ATF. This report sets out the findings of the evaluation.

The Automotive Transformation Fund

The ATF has been set up to support the development of an internationally competitive electric vehicle (EV) supply chain in the UK.

The ATF provides financial support to companies investing in four priority technology areas: batteries, motors and drives, power electronics, and fuel cells. There are two strands:

- **Funding for R&D and feasibility work**, aimed at providing findings that can be used to help businesses realise commercial opportunities in the EV supply chain in the UK and demonstrate the feasibility to invest through pilot scale projects.
- **Capital grant funding**, aimed at directly supporting capital investment in the EV supply chain in the UK.

In the Net Zero Strategy 2021, the Government announced £350m for the Automotive Transformation Fund to be delivered over the next three years. This was in addition to the £500m previously announced as part of the Ten Point Plan for a Green Industrial Revolution.

Process Evaluation Methodology

The process evaluation was conducted between August and December 2022. By this stage, four competitions for R&D support had been conducted, and virtually all of the studies funded through the first two competitions had been completed. The competitions for capital support had been running for over two years. However, only three capital projects had accepted Final Grant Offer Letters at that point, and none had significant experience of being monitored as live projects.

Thematic analysis was used to analyse the findings from four sources of evidence:

- Semi-structured interviews with delivery partners and stakeholders,
- Workshops with applicants for R&D support, delivery partners and wider stakeholders,
- In-depth interviews with applicants for capital funding, and

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- Programme monitoring data.

The data collected was primarily qualitative, which allowed us to explore experiences and issues in detail. We analysed where views are held by small numbers of, or particular types of stakeholders, and where they are representative of a consensus of opinion.

The process evaluation is organised into evaluation themes, structured around the stages of the delivery process.

Key findings and recommendations

Here we present our key overall findings and recommendations for process-related changes to the ATF. This is based on our overall assessment of all the evidence collected from the spectrum of stakeholders consulted. More details of specific evidence underpinning these findings and recommendations are presented later in this Executive Summary and in the main body of the report.

Key findings:

Several aspects of the ATF processes were felt to be particular strengths that would support delivery of the ATF's intended outputs, outcomes and impacts. This included:

- The focus of the ATF across the breadth of the EV supply chain and on feasibility studies and capital investment which were unsupported before the ATF.
- The 'dual monitoring officer' structure, providing organisations with an ongoing point of contact to discuss 'next steps' for them and their ATF funded investments.

In other respects some processes were felt to be working less well. Applicants for capital funding have felt that:

- The long timescales involved for applications for capital funding have been problematic for themselves and risk being a deterrent to others.
- The "government" (in general, distinct from those delivering the ATF) has sometimes come across in a negative and adversarial light which may discourage inward investment.

The ATF is a novel policy, and the capital projects are complex and seeking large amounts of public investment. It is therefore right that applications (and funded projects) are subject to significant scrutiny in order to protect public money. This will inevitably take time and leave applicants with a particular impression of the process. However, the lengthy timescales to access capital funding also pose a risk: they increase the chance that the ATF is unable to deliver its intended outputs, outcomes and impacts. Four specific examples were identified through the consultation exercise conducted for this process evaluation:

- If the ATF is unable to dispense its funding as planned, this would reduce the number of funded investments and reduce the chance that an EV supply chain is successfully kick-started in the UK.

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- Delays in funding projects means that opportunities to crowd in other investments could be missed.
 - If the majority of funded projects end up being of particular type (e.g. those where approval is more straightforward, or where the applicants are better placed to persevere with their projects despite the long timeframes), valuable investment opportunities may be missed.
 - The negative experience of companies applying for capital funding may put companies off applying for funding or locating in the UK.

Key recommendations:

The capital application processes have the challenge of balancing the desire to encourage investment in the UK EV supply chain while also providing appropriate protection to public money. In our view the balance of evidence suggests there is a need to speed up the capital application processes if the ATF is to have the impacts intended. We have four recommendations that would be expected to speed up (and improve in other respects) the application process without unduly risking the good use of public funds.

Recommendation 1: Some aspects of the full application should be brought earlier in the process – in particular, including clearer guidance and feedback on the limitations on what is applicable for government funding. This may be achieved through extending the content of the pre-application questionnaire, or by ensuring that all applicants complete the pre-application questionnaire if this is not currently the case.

Recommendation 2: Clearer guidance and support on possible ways to make the case for public investment should be delivered by CGL at the start of the full application process. While recognising that a justifiable case for public investment needs to be in line with legal, subsidy control and managing public money requirements, consideration should be given to whether the emphasis that capital applicants demonstrate an existential need for public funding could be reduced.

Recommendation 3: Clearer guidance should be provided on the expectations from external due diligence in order to help applicants contain costs and timescales. This could include imposing maximum report sizes and strongly making the recommendation to applicants that they obtain quotes from multiple due diligence providers.

Recommendation 4: The Industrial Development Advisory Board (IDAB) has a statutory role of advising government regarding requests for financial support from businesses. Within that role the way the ATF programme interacts with the IDAB should be re-examined and documented to ensure that the scope of advice sought from IDAB, and the flexibility that IDAB have with regard to recommendations, is understood by all parties.

The scrutiny required for projects to receive public funding will probably always leave some applicants with a negative impression of the government's interest in supporting the EV supply

chain in the UK. To limit this perception spreading among the wider industry it will be important to advertise the successes of the ATF.

Recommendation 5: The successes of the ATF should be publicly celebrated to improve the perception of the ATF and government support for the automotive industry in the UK.

There are two small improvements that we think could be made to future ATF R&D competitions.

Recommendation 6: Innovate UK (IUK) should consider whether there are any further steps that could be taken to make the ATF R&D competitions as accessible as possible to those who have not applied for IUK funding before.

Recommendation 7: Delivery partners should consider whether there is a sufficient diversity of professional perspectives and experience among those appointed to assessor panels. If not, they should consider whether and how assessor recruitment processes could be adjusted in order to achieve this.

For the success of both R&D and capital projects it would be valuable to explore whether more flexibility can be given around the timing of payments to funded projects. While not necessarily within the scope of ATF processes, timing constraints emerged as being of sufficient concern to companies that it is worth the ATF delivery partners considering whether there are any further measures that can be taken to ensure flexibility, particularly for firms facing supply chain disruptions or having to raise substantial sums of external finance from private markets.

Recommendation 8: While not necessarily within the scope of ATF processes to fix, the delivery partners should explore whether more flexibility can be given around the timing of payments to funded projects, particularly focused on removing rigidities in the timing of payments around the end of the government's financial year.

Finally, the delivery partners' experience of making large capital investments has evolved considerably since the ATF started and will continue to increase over the next two years. While this process evaluation has recorded many learnings, future lessons learned should also be documented.

Recommendation 9: Further learnings from the ATF experience should be recorded for the benefit of future policy design. This should include updated documentation on the final ATF processes, as well as a record of why considered process changes were or were not implemented.

Detailed findings

Here we summarise in more detail the main evidence collated through the process evaluation. This is organised into evaluation themes, structured around the stages of the delivery process.

Design of the ATF

- There was consensus from across the spectrum of those consulted that the funding available to the ATF from government is small compared to the investments courted and relative to what is available from other governments internationally.
- There was mostly agreement that the ATF was well targeted – both in terms of the technology areas in scope, and in terms of addressing a previous absence of support for capital investment.
- There is good avoidance of overlap with other government initiatives, in particular those investing in similar technology areas but at different levels of technological readiness.
- Capital applicants who had accessed funding for feasibility studies thought that there was good alignment of the R&D and capital strands of the ATF and that these worked well together towards the same objectives to support scale-up.

R&D support: application process

- Most applicants found the application process for R&D funding to be straightforward, but there was acknowledgement that the process could prove more of a barrier for firms who had not been involved with IUK before.
- Several applicants thought there could be greater clarity of what is in scope for each competition – in particular, what aspects of the value chain for priority technology areas are in scope – and what sorts of projects the call is looking to support.
- There was occasionally a perception among R&D applicants that the group of assessors may be limited in terms of their professional background and experience, and that this may cause some unconscious bias in their assessment of applications.

R&D support: delivery and monitoring

- There was lots of appreciation for the monitoring structure with both a monitoring officer and a project delivery lead. The project delivery leads were felt to be particularly beneficial in helping to signpost to support for 'what next' and ensuring enduring effects of the ATF investments.
- There was concern among both R&D applicants and delivery partners over the fiscal year rigidity of budgets and the difficulty companies face to always sticking to planned timelines given supply chain and commercial disruptions.

Capital investment support: application process

- Most delivery partners felt that the ATF has received the expected quantity of proposals for support from across most of the intended priority technology areas.

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- The ATF has underspent relative to its planned disbursement to date. There was some consensus across delivery partners that this was in part because the planned programme budget profile was not backloaded enough from the outset (given that large capital projects always take time to get off the ground), and in part because applications took longer to be developed and longer to assess than expected.
 - While applicants were sympathetic to the need for scrutiny given the amounts of public money involved, many found the application process (after the expression of interest stage) arduous and the consensus was that the timescales for accessing funding were unreasonably long. There was near consensus that the process was challenging because it was different to how industry normally makes business cases, and that it came across as negative, quite adversarial, and sometimes like a negotiation.
 - Delivery partners highlighted that the ATF is a novel programme, and that applications need to be subject to rigorous scrutiny in order to protect public money.
 - One delivery partner highlighted the challenge of assessing and evaluating bids when there are not necessarily competing proposals from the same technology area being assessed at the same time that can be compared. This meant that applications were effectively competing against an internally set bar for funding, leading to extended timescales as the delivery partners and applicants sought to ensure that applications were as near perfect as possible before being finally assessed.

Capital investment support: delivery and monitoring

- While there was recognition from capital applicants of the need to monitor the delivery of large public investments, there is some concern that the detailed processes for monitoring investments may be onerous.
- Capital applicants stressed that investments need to remain aligned to business needs in an evolving commercial context and therefore the potential need for flexibility in future was highlighted.
- Capital applicants also highlighted the difficulties in managing costs and meeting forecasts on the exact timeframes planned in order to meet monitoring requirements and draw down funding.

Overall programme delivery

- All capital and R&D applicants were extremely positive about the individuals they engaged with regarding the ATF. It was felt they worked hard to make the policy a success within the constraints they faced.
- The internal organisation of the ATF was generally felt to be good, with understandable tensions where delivery partners have different objectives.

1. Introduction

Frontier Economics was commissioned by the Department for Business and Trade (DBT) to conduct a process evaluation of the Automotive Transformation Fund (ATF).¹

This aims to understand whether the ATF is being implemented as intended, whether the design is working effectively, and what is working more or less well and why. The objective is to identify any actionable insights for process-related changes that could improve the delivery of the ATF over the remainder of the programme, and to recognise any lessons that could be of more general benefit to similar policies in future.

This report sets out the findings of the evaluation. In the rest of this section we briefly describe the ATF. Section 2 defines the structure of the evaluation and briefly describes the methodology. Section 3 presents the findings of the evaluation.

The ATF

The Automotive Transformation Fund (ATF) has been set up to support the development of an internationally competitive electric vehicle (EV) supply chain in the UK.

The ATF provides financial support to companies investing in four priority technology areas: batteries, motors and drivers, power electronic and fuel cells. There are two strands:

- **Funding for R&D and feasibility work**, aimed at providing findings that can be used to help businesses realise commercial opportunities in the EV supply chain in the UK and demonstrate the feasibility to invest through pilot scale projects.
- **Capital grant funding**, aimed at directly supporting capital investment in the EV supply chain in the UK.

In the Net Zero Strategy 2021, the Government announced £350m for the Automotive Transformation Fund to be delivered over the next three years.² This was in addition to the £500m previously announced as part of the Ten Point Plan for a Green Industrial Revolution.³

The main objectives of the ATF are to:⁴

- Signal the UK's commitment to the future of the automotive sector and raise the profile of the UK as a location for automotive activity, drawing in private investment.

¹ Government departmental structures were changed in February 2023 and BEIS no longer exists as a government department. However references to BEIS are maintained throughout this report, since this was the departmental structure that was in place during the period covered by this process evaluation of the ATF.

² BEIS (2021) [Net Zero strategy: Build Back Greener](#)

³ BEIS (2020) [The Ten Point Plan for a Green Industrial Revolution](#)

⁴ From BEIS 2021 Full Business Case for Automotive Transformation Fund – Supply Chain (ATF SC).

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- Safeguard or grow manufacturing jobs in the UK automotive sector.
 - Address and remedy the structural weaknesses in the UK supply chain, helping ensure a secure and resilient supply of key materials and components, and work towards increasing local content in UK built electric vehicles, which will support meeting 'Rules of Origin' requirements, enabling tariff free access to global markets.
 - Reduce global emissions from the automotive sector.

In a companion report,⁵ Frontier Economics developed an evaluation framework for the ATF which included a summary logic model setting out how the activities of the ATF should, in principle, contribute to the intended objectives. This logic model is provided in Appendix A.

The BEIS Automotive sector team manages the overall programme and ensures that the ATF operates in line with the objectives of government policy. They rely on the expertise and time of staff from six delivery partners:

- Advanced Propulsion Centre (APC): who are the main delivery partner. APC are involved with most of the activities to deliver the ATF.
- Innovate UK (IUK): who operate the funding competitions through their Innovation Funding Service portal.
- Department for Business and Trade (DBT) and the Office for Investment (OFI): who are involved in engagement activities with international firms and investors.
- BEIS Central Grants and Loans team (CGL): who conduct appraisal of the projects that make full applications for capital investment support, and ongoing monitoring of supported capital projects during and after the life of those projects.
- BEIS Sector Analysis team: who are responsible for contracting and calculations regarding the value for money of the overall programme.

In developing our evaluation framework, we set out a process map which illustrated the main processes involved in the delivery of the R&D and capital strands of the ATF, and which of the partners is involved in each stage of the process. This process map is shown in Appendix B.

⁵ Frontier Economics (2022), Automotive Transformation Fund Evaluation Framework Final Report, London: BEIS

2. Evaluation methodology

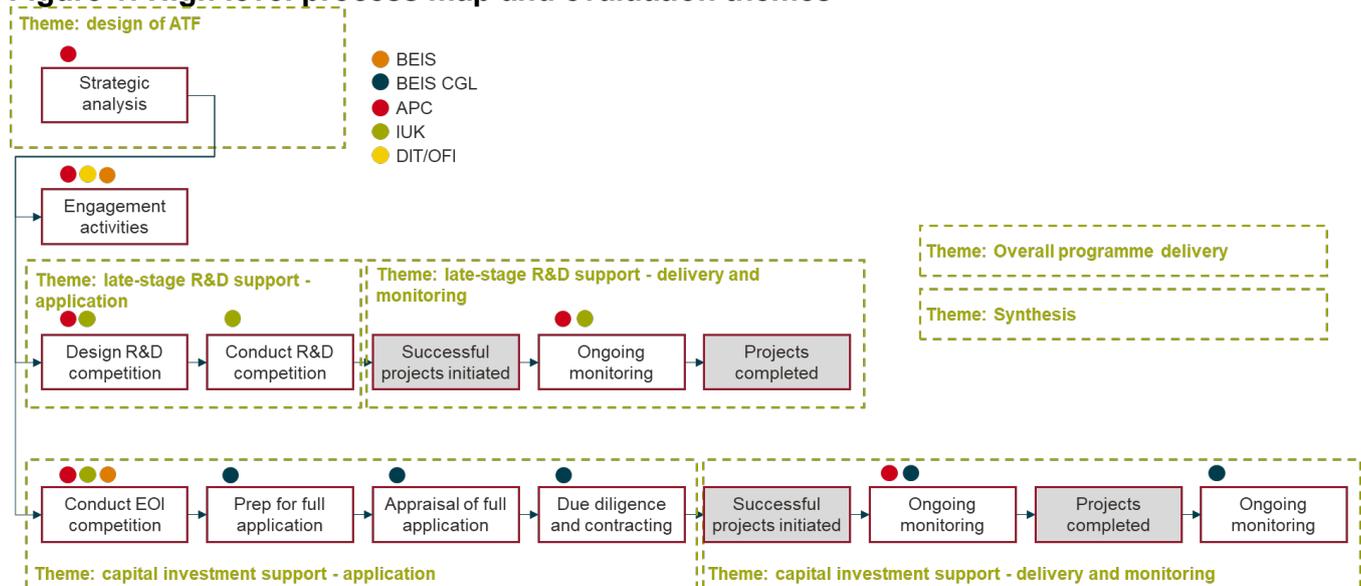
Process evaluation structure

The process evaluation is organised around seven evaluation themes. These themes were identified from the process map and agreed with BEIS in finalising the evaluation framework for the ATF. A summary of the link between the process map and the themes is shown in Figure 1. The evaluation themes are:

- **Design of the ATF.** Focuses on the overall design of the ATF, with a particular emphasis on the effectiveness of the strategic analysis process.
- **R&D support: application process.** The effectiveness of the application process to the R&D strand of the ATF, in particular whether it is attracting appropriate interest and whether the process is perceived to be fair and proportionate.
- **R&D support: delivery and monitoring.** Whether the delivery and monitoring of the R&D strand of the ATF is effective and proportionate.
- **Capital investment support: application process.** The effectiveness of the application process to the capital strand of the ATF, in particular whether it is attracting appropriate interest and whether the process is perceived to be fair and proportionate.
- **Capital investment support: delivery and monitoring.** Whether the delivery and monitoring of the capital strand of the ATF is effective and proportionate.
- **Overall programme delivery.** The overall effectiveness of the delivery of the ATF, with a particular emphasis on how well ATF delivery partners have engaged internally and externally.
- **Synthesis.** This theme provides a synthesis of ATF processes, with a particular focus on learnings and recommendations for future process-related changes.

A fuller description of the questions explored under each of these themes is provided in Appendix C.

Figure 1: High level process map and evaluation themes



Source: Frontier Economics.

Methodology

The evaluation is based on five main sources of evidence:

- Seven semi-structured interviews with delivery partners and key sector stakeholders including representatives from BEIS Automotive sector (policy) team, BEIS Sector Analysis team, BEIS Central Grants and Loans team, Department for Business and Trade, APC, Automotive Council, and Faraday Battery Challenge.
- One deliberative workshop with delivery partners and wider sector stakeholders.
- Two deliberative workshops conducted with applicants for R&D support. This included both applicants that received funding from the ATF and applicants that were unsuccessful in their bids for funding.
- Six in-depth interviews with applicants for capital funding. This included both companies that had received final grant offers through the ATF, and companies that were still applying for funding.
- Programme monitoring data provided by APC and BEIS. This included data on the number of applications to the different ATF competitions, data on ATF funding and disbursements to date, and data on the timing of different stages of the capital application process for a selection of applications,

The individuals invited to contribute on behalf of the delivery partners were identified by the evaluation team, BEIS, and APC. Representatives from wider sector stakeholders were recommended by BEIS and APC. The R&D applicants invited to contribute were chosen by the evaluation team from the list of project applications provided by APC. They were chosen such that there were representatives from all the main technology areas (as classified by APC) and applicants who had applied to all the different R&D competitions that had been run under the ATF. The applicants for capital funding who were interviewed were chosen to reflect a variety

of firm types, and were agreed jointly by the evaluation team, BEIS, and APC. The applicants chosen were some of those that were furthest through the application process, so that they would be able to provide feedback on more of the processes involved. One consequence of this is that they are applicants who started their applications in the first year of the ATF.

The interviews and workshops were facilitated by members of the evaluation team. Interviews were semi-structured based on a flexible topic guide developed from the evaluation themes, questions and the process map and agreed with BEIS. The workshops were also facilitated by members of the evaluation team, with breakout rooms used to focus discussion on particular evaluation themes with the most relevant stakeholders. Workshop sessions were again semi-structured, using a topic guide that was agreed with BEIS to guide discussion. All qualitative interviews and workshops were recorded and transcribed using automated tools within the platforms used to host the sessions. This enabled the evaluation team to observe all aspects of parallel discussions, facilitating later analysis and ensuring consistency in interpretation.

Thematic analysis was used to analyse the findings from all sources. This involved a detailed review of all evaluation materials to identify key themes, and interpreting the key features of the evidence in each theme to find associations and provide explanations for observed phenomena.

The main findings and recommendations were discussed in an online session with delivery partners, key sector stakeholders and representatives from other government departments including HM Treasury. The discussion and feedback received have been reflected in this final report.

Timing

The interviews and workshops were conducted online between August and December 2022.

By this stage, four competitions for R&D support had been conducted, and virtually all the studies funded through the first two competitions had been completed. Projects funded through the second two competitions were largely either underway or completed, with a small number still to start.

The competitions for capital support had been running for over two years. However, only three capital projects had accepted Final Grant Offer Letters at that point, and none had significant experience of being monitored as live projects.. This means that relatively little evidence could be collected with respect to theme 5 (Capital investment support: delivery and monitoring), and the discussions that were had with companies and delivery partners on this topic were more anticipatory in nature.

The final online discussion of findings and recommendations was held in March 2023.

3. Evaluation findings

This section provides the findings of the process evaluation of the ATF, drawing on evidence from the workshops, interviews and programme monitoring data. It explores views on the key themes and research questions set out in the evaluation framework described in Section 2, with findings structured around each theme. Quotes from the workshops and interviews are provided where these give particular clarity around stakeholder views; the main text indicates whether any views reported were held by small numbers of, or particular types of stakeholders, or whether they are representative of a consensus of opinion.

Theme 1: Design of the ATF

Key findings:

- There was consensus from across the spectrum of those consulted that the funding available to the ATF from government is small compared to the investments courted and relative to what is available from other governments internationally.
- There was mostly agreement that the ATF was well targeted – both in terms of the technology areas in scope, and in terms of addressing a previous absence of support for capital investment.
- There is good avoidance of overlap with other government initiatives, in particular those investing in similar technology areas but at different levels of technological readiness.
- Capital applicants who had accessed funding for feasibility studies thought that there was good alignment of the R&D and capital strands of the ATF and that these worked well together towards the same objectives to support scale-up.

Has the strategic prioritisation process of the ATF targeted the right mix of technologies and companies?

Overall, the respondents engaged found that, for the most part, the right types of technologies and companies were targeted and engaged by the ATF. This was due to a range of factors including how companies and technologies were identified and targeted, and how effectively companies found out about the ATF opportunities.

Identifying the right technologies and companies

R&D applicants were mostly happy that the scope of the funding met their requirements. They found that the funding reflected the different elements of the sector well to help take electric vehicle development forward. It was also noted that it was positive this funding included raw materials, which do not always get included in R&D funding calls of this nature.

“The scope of the funding has been a very good match both to what we develop and also to the stage where we are at.” R&D applicant

”[The ATF] joined up thinking of how to move the EV supply chain forward and all of the things that feed into that has been really commendable.” R&D applicant

Similarly, capital applicants found that the scope of the funding included the important different elements of the supply chain.

There were however a few areas that R&D and capital applicants felt should have been included, such as wider automotive infrastructure elements, system integration and battery packs.

A few of the delivery partners also noted that they would have liked further funding to widen the scope to include other sectors such as aerospace, where there are synergies with the technologies that feed into the automotive industry.

Stakeholders from IUK and APC discussed a ‘dynamic’ approach to identifying the technologies and companies targeted for the ATF. It was felt that this was an appropriate way to respond to a changing funding landscape and ensure a range of projects were included that were at the right stage of development.

““We’ve had to make some choices along the way and those choices are taken with the best understanding of what’s happening in that moment in time and what’s happening around some of the variables that play into that around Europe and elsewhere as well.” Delivery partner

It was noted that this prioritisation process did lead to some challenging decisions having to be taken by the programme delivery board, for example removing recycling projects from being in scope for capital funding, deciding when to emphasise specific technologies, and needing to be selective when making decisions where there are more prospects that the process has the capacity to manage.

Additionally, some of the stakeholders raised concerns that there was too much focus on very large flagship projects, and that more work should now be focused on wider supporting infrastructure in the sector.

“I do see real risk in in just incentivising the biggest, most easily identifiable opportunities like Gigafactories, I mean, everyone’s heard of a Gigafactory, but how many people have heard of cathode active material? And if you don’t attract cathode active material, you’ll lose your Gigafactory.” Delivery partner

Communicating the ATF opportunity

To effectively engage the right types of business, how the ATF was communicated and targeted at potential applicants was crucial.

Most of the applicants who took part in the workshops and interviews noted that they found out about the ATF funding through their existing links and knowledge of the sector, including links with UKRI (and IUK specifically), and APC. Some already receive or have previously received funding and support from UKRI and APC, with some noting they check their website and communications regularly.

“We picked up the ATF off the Innovate UK website” R&D applicant

“We were made aware [of the opportunity] by project monitoring....and also I think we receive all of all of the UKRI upcoming funding emails where calls are announced as well.” R&D applicant

“We did work through Faraday Battery Challenge and then subsequently through our networks were introduced to ATF.” R&D applicant

In a few cases the initial approaches were more managed, particularly with some of the international companies, and some of the capital applicants described being more directly steered towards applying to the fund via their contacts at APC. Delivery partners noted that in some cases they were more proactive about approaching companies who were in specific priority areas, for example areas where there is not natural strength in the UK.

Some applicants and delivery partners did raise queries about how companies who did not have close links with APC and IUK may find out about the funding, and wondered whether more could be done to reach out to these organisations. However, one delivery partner commented that the ATF was supporting several companies who have not engaged with them previously.

“It’s led to us supporting a number of new companies that we haven’t seen within our portfolio of funding programmes within our team, which I think is certainly one of the good things.” Delivery partner

Some successful R&D applicants also noted that it was important to be able to plan and consider what comes next following the funding, and ensure there are further pathways of support to build on the R&D.

How well do the strands of the ATF align and how well does the ATF align with or complement other government activities?

Some capital applicants initially had R&D funding for a feasibility study, while others did not. Those that did thought the capital and R&D strands of the ATF aligned well, and worked towards the same objectives to support scale-up.

“The feasibility study was early works assessment. That really helped inform the business case that ultimately became the driver for the main capital grant process,” Capital applicant

“[The feasibility study funding enabled us to] justify having that time and that expense on the item. It helped us spend more time look at [a potential

investment] and it really unlocked some opportunities that we were able to take forward to the ATF capital process.” Capital applicant

Several delivery partners reflected on the extent to which the R&D and capital funding have not inter-related as they initially thought they would. The original intention was capital investments supported by the ATF would include R&D elements. When this did not emerge to the extent expected, funding allocated to the ATF for R&D was instead used to support further feasibility studies and scale-up projects. One delivery partner and one wider stakeholder noted that they thought it would be better for the ATF’s intended outcomes if there was more flexibility between the funding pots to allow transfer between the strands.

“It could have been more helpful to top up the capital pot and do less of the (nice to have and good value) R&D” Delivery partner

“The lack of flexibility is always difficult in these things where you just need to be able to respond to the opportunities that are in front of you. And that’s often difficult once the program has been designed and incorporated.” Wider stakeholder

Delivery partners and applicants noted that the ATF aligns well with the wider funding environment in the sector, and in particular the Faraday Battery Challenge. The ATF is perceived to contribute to a coordinated and unified system of government support for the full process from academic research all the way through to production. Delivery partners have also worked to reach out to other stakeholders e.g., in chemical and IT sectors, to ensure they are not duplicating or ‘treading on toes’ so they can make the most from the resources available to the ATF.

“The funding was one thing, but the coordination between all of us was a really important part of it. I think we all connect on a very regular basis between DIT and BEIS and Faraday and APC and make sure that we’re working hand in glove on what we’re trying to do. And from the perspective of the companies that we work with, I know that that’s really valuable for them. I know we sell that as an important point that they can go and knock on whichever door.” Wider stakeholder

There was general consensus from the R&D and capital applicants that the ATF funding is a unique opportunity that other sources would not be able to address.

“The scope of the program, being that much more commercial in flavour is a really important type of funding for companies that are developing technologies and that don’t necessarily fall under Faraday as such but they are still high risk for a small company to pursue on their own. So that enables us to move at the faster rate. So I think that that’s been a really, really big positive.” R&D applicant

Applicants were positive that the opportunities the ATF created were aligned to what they wanted to achieve and would help reduce the risk when increasing their technological readiness levels.

“When we set out, the scale of the investment vs support it was a good fit. The feasibility study was really good for that. It’s a good system. The two strands align quite well.” Capital applicant

However, there was also broad consensus from across the spectrum of those consulted that the funding available to the ATF from government is small – both compared to the size of the investments that the ATF is seeking to encourage to locate in the UK, and relative to the amount that foreign governments are spending to encourage EV investments in their countries.

“The ATF has been brought in as a flagship project, and it sounds great on the surface, but then when you actually get into the detail, the proportion of support is better than nothing but the norm is far higher in most of the European countries.” R&D applicant

“We’re not dynamically adapting to the environment, either in timescales or in amounts.” Delivery partner

Theme 2: Late-stage R&D support: application

Key findings:

- Most applicants found the application process for R&D funding to be straightforward, but there was acknowledgement that the process could prove more of a barrier for firms who had not been involved with IUK before.
- Several applicants thought there could be greater clarity of what is in scope for each competition – in particular, what aspects of the value chain for priority technology areas are in scope – and what sorts of projects the call is looking to support.
- There was occasionally a perception that the group of assessors may be limited in terms of their professional background and experience and that this may cause some unconscious bias in their assessment of applications.

Has the ATF attracted interest from organisations in priority technology areas? Why (not)?

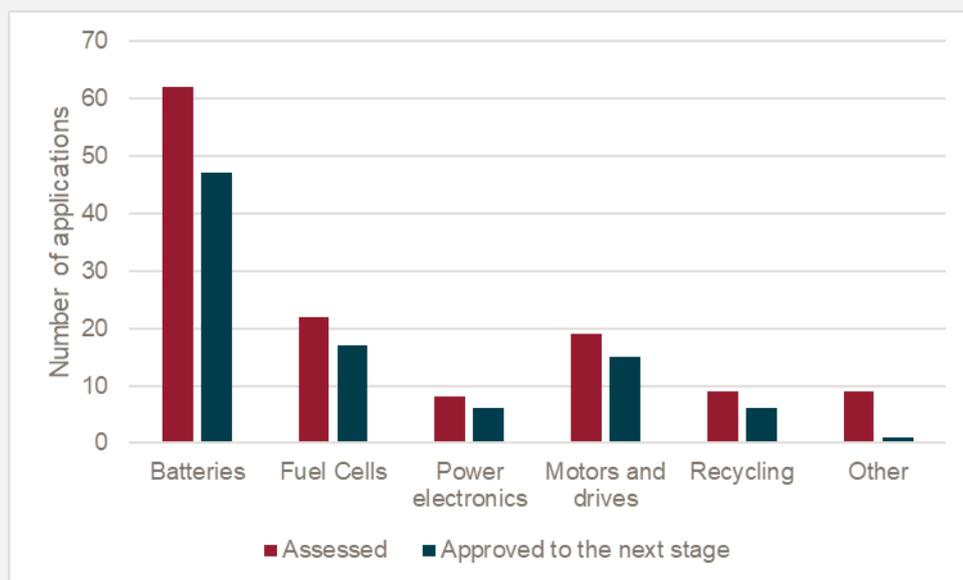
Overall, the delivery partners report having been over-subscribed by applications for R&D funding and were happy that these came from across most of the different technology areas they desired (although not in power electronics). Pre-existing relationships and processes between APC and IUK were key to ensuring this range and volume of applications and managing them effectively.

Descriptive statistics on ATF R&D funding applications

Between inception and May 2022, the ATF received 142 applications for R&D funding (through four funding competitions). 13 were deemed out of scope and 129 were assessed. Among these, 92 were approved for funding (around 71% of all in-scope applications).

Applications for R&D funding were spread across the different technology areas, with the majority of applications revolving around batteries, as shown in Figure 2 below.

Figure 2: R&D applications



Source: Frontier Economics analysis of R&D competition data provided by APC. Applications classified into technology areas by APC.

Project stakeholders noted that the first ATF R&D funding competition was more ‘rushed’, due to the timing of when the funding became available (ATF funding for 2020/21 was secured in July 2020, with the first funding competition being open from 13 July 2020 to 29 August 2020, for projects required to conclude by the end of March 2021). As such, in this wave of applications a wider range of projects were funded when compared with a more targeted approach in subsequent funding rounds.

Most applicants (both those that were successful and those that were not) found the R&D application process to be straightforward, and several noted it felt similar to other IUK proposals, where some had been successful in the past. Some find this type of process to be helpful as it encourages them to consider and plan for risks and project management early.

“I think if you’re familiar with the bid process across a number of the different strands of funding, it was fairly comfortable.” R&D applicant

It was also noted that the portal used to submit and manage applications was easy to use and a significant improvement on previous portals used.

However, it was noted by applicants that organisations with less experience of bid writing and funding applications of this nature could struggle more and potentially be put off from applying if they did not understand the process. It was felt that more support for such organisations through proposal exemplars or access to more experienced partners to work with may be beneficial.

“I think it was more geared towards companies that they’ve seen before who, who tend to work in a certain type of way with certain timeframes. Whereas for example our company sort of had explosive growth and deliver stuff really quick (going to go from zero to first prototype in six months). There was a lot of lack of belief that this could be done in these similar timeframes.” R&D applicant

“The ATF struck me as being targeted at the traditional automotive industry and initial programmes.....that structure didn’t necessarily work for people coming with a different perspective.” R&D applicant

“I don’t know if there needs to be some sort of separation, more segmentation of the market and like a specific fund for all the big companies and then a specific fund for start-ups.” R&D applicant

Some respondents noted that for some companies, the UK funding system was too complicated, and as such it is better for them to invest in other countries. There was also the perception that the funding landscape in the UK is very competitive and there is not always support for newcomers.

“I think it does have a negative impact on the UK PLC. That it is so difficult in general to access this sort of thing and it is in general such an adversarial process and there’s so little support out there available. We were sort of left to fight for our own while you see French and German counterparts having assistance poured on them.” R&D applicant

One R&D applicant also discussed opportunities available in Wales and Scotland. Scottish Enterprise was noted as more personalised in their approach to businesses, although less organised than APC.

While there was general agreement that the ATF was (with a couple of exceptions) broadly targeting the right technology areas (see Theme 1), a number of R&D applicants noted that there was some confusion in terms of what was in scope for different competitions.

“Technology areas was a bit vague, in terms of what part of the value chain. Compared to more conventional Innovate UK funding it was just a bit wishy washy. The other aspect that wasn’t clear was although it is targeted at late-stage stuff, it wasn’t very clear what that meant.” R&D applicant

However, some respondents noted that they were able to get further helpful clarification on the scope of applications from APC.

“Externally the scope was vague and it wasn’t all that clear. There was better guidance available talking to the team.” R&D applicant

Have application processes been seen to be fair, effective and proportionate? Why (not)?

As noted previously, most R&D applicants were familiar with the IUK proposal format and did not have any issues or challenges completing this. Successful applicants were more likely to think the process was proportionate as they had been successful and received the funding they required. R&D applicants reported that they are less likely to apply for funds where they hear the success rates are low or if the application process is too complicated for a relatively small grant.

“The type of application and the success rate and the effort that we’ve made has been well worth our efforts to the point that we very rarely apply for anything else to be honest anymore because of the fact that the type of research or development or study we are looking to do fit so well into this activity.” R&D applicant

A few applicants felt there was some crossover between different question areas that may have led to some duplication and need for clarification in some of their responses, so felt it could be more tailored.

“Some of the feedback we got was that that there was a slight overlap and that was deliberate because we weren’t entirely clear about what should be included within each question. I think they have a few of them that were very, very similar, just looking for slight nuances.” R&D applicant

A small number of applicants discussed an element of potential unfairness in the process, where assessors may not fully understand the context and experiences of their business, if their background is different or more outdated. However, it is worth highlighting that since assessors provide anonymous feedback on applications, this is supposition on the part of the applicants.

“That assessor group is quite a small group and if the assessor is a retired engineer from [a large OEM] who is used to [the large OEM’s] timescales and budgets [...] It is bizarre to get penalised, as a small dynamic company, for saying that you’re going to do things too quickly and too cheaply” R&D applicant

One of the applicants felt there was some lack of understanding about what their organisation does, and how their proposed project aligned with other elements of their offer.

“The assessors were very fixated on what our company does right now and they couldn’t really see beyond that to all the stuff that we’ve been doing in the background.” R&D applicant

Theme 3: Late-stage R&D support: delivery and monitoring

Key findings:

- There was lots of appreciation for the monitoring structure with both a monitoring officer and a project delivery lead. The project delivery leads were felt to be particularly beneficial in helping to signpost to support for 'what next' and ensuring enduring effects of the ATF investments.
- There was concern over the fiscal year rigidity of budgets and the difficulty of always sticking to such plans given supply chain and commercial disruptions.

Are processes to support, monitor and track funded projects effective and proportionate?

Among both delivery partners and those in receipt of R&D funding, there was satisfaction that the monitoring process for R&D projects was effective and proportionate.

Those with more experience of European funding found the reporting to be more frequent than other experiences (quarterly rather than 6-monthly or annually), but they got used to this.

Some of the companies' experiences varied depending on the approach of the individual monitoring officers; however, mostly they found them to be accessible and helpful with any queries.

Delivery partners and those in receipt of R&D funding valued the dual approach of having a monitoring officer (from IUK) and a project delivery lead (from APC), with the former able to focus on administration and management and the latter on providing project-specific interest and support.

"It sort of established [a] bit of a relationship with the APC, looking at the wider picture of where we want to take the business into the future rather than just the next six month [...] I think is a good thing for the ATF programs." R&D funding recipient

"I see there's been far more nurturing than just the one-off ...where the project happens in complete isolation, it ends and then there's no real follow up or engagement. But I feel that once you're part of the APC and ATF system, you've got the backing and the support of the whole of the APC for example in guiding towards possible pots of funding or useful contacts. So I feel there's more engagement which is a good thing." R&D funding recipient

Several of the funding recipients raised some concerns about the challenges inherent with delivering contracts within limited timescales, which may be off-putting to some businesses. One key challenge which was frequently discussed was the lack of flexibility relating to budget profiling and how it can transfer between years if there are delays or changes in project

delivery. Some funding recipients had received extensions on their projects due to supply chain and staffing issues, and felt IUK were supportive about this; however, one respondent felt their monitoring officer was not as supportive as others might be, and felt they were seen as ‘already failing’.

“The key thing for me is this challenge of managing BEIS and UKRI fiscal year budgeting with the delivery of research and technology projects. There is a risk of incompatibility between trying to maximise the utilisation of available budgets within defined periods from a BEIS and Treasury perspective against the realities of uncertainty and risk around delivering research and technology projects.” R&D funding recipient

“The absolute restriction on funding being only eligible within a defined period with an absolute cut-off, no rollover, we find quite challenging....whilst we set off with the best of intentions to meet that, invariably given the nature of research and technology and collaboration and so on, it’s very difficult to manage precisely to a fiscal year period.” R&D funding recipient

Project stakeholders also noted the challenges of these types of administrative constraints, and voiced the need for delivery partners to be dynamic and flexible in their decision-making and push for increased speed to reflect the commercial context.

Theme 4: Capital investment support: application

Key findings:

- Most delivery partners felt that the ATF has received the expected quantity of proposals for support from across most of the intended priority technology areas.
- The ATF has underspent relative to its planned disbursement to date. There was some consensus across delivery partners that this was in part because the planned programme budget profile was not backloaded enough from the outset (given that large capital projects always take time to get off the ground), and in part because proposals took longer to be developed and longer to assess than expected.
- While applicants were sympathetic to the need for scrutiny given the amounts of public money involved, many applicants found the application process (after the expression of interest stage) arduous and the consensus was that the timescales for accessing funding were too long. There was near consensus that the process was challenging because it was different to how industry normally makes business cases, and came across as negative, quite adversarial and sometimes like a negotiation.
- Delivery partners highlighted that the ATF is a novel programme, and that applications need to be subject to rigorous scrutiny in order to protect public money.

- One delivery partner highlighted the challenge of assessing and evaluating bids when there are not necessarily competing proposals from the same technology area being assessed at the same time that can be compared. This meant that applications were effectively competing against an internally set bar for funding, leading to extended timescales as the delivery partners and applicants sought to ensure that applications were as near perfect as possible before being finally assessed.

Has the ATF attracted interest from organisations in priority technology areas? Why (not)?

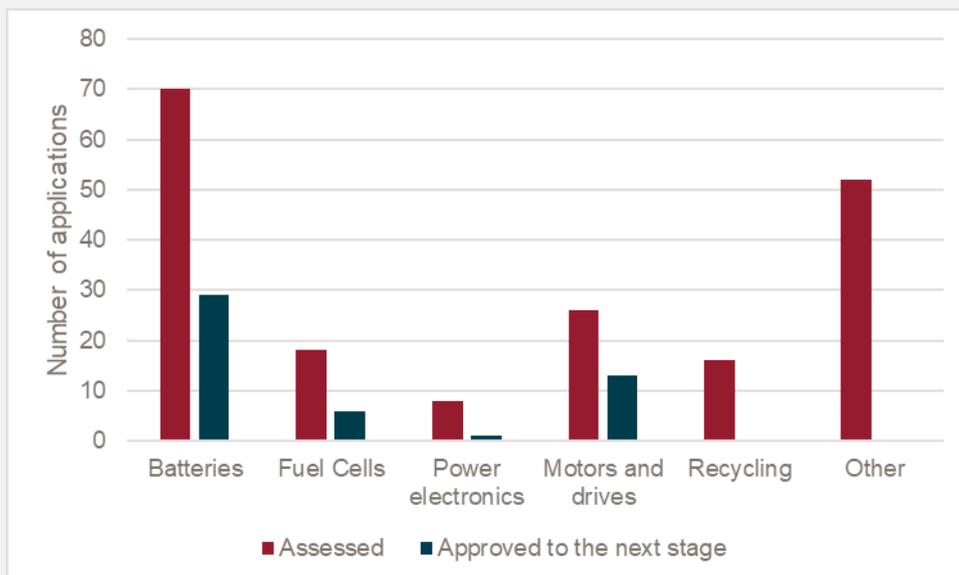
Delivery partners were happy that the ATF had attracted the interest they wanted from most priority technology areas. The exceptions were in PEM fuel cells and Cathode Active Materials technology areas, where there were fewer applications than desired.

Descriptive statistics on ATF capital funding applications

As of November 2022, the ATF had received 366 Expressions of Interest (EOI) for capital funding, 176 of which were ruled out of scope (largely due to not being in priority technology areas) and 190 were assessed. 49 were approved and recommended to progress to the next stage of the process (around 26% of assessed applications).

Figure 3 shows that, similar to the R&D strand, the greatest number of applications filed belongs to the batteries technology area. A significant number of applications assessed (52) were found to not belong to any of the technology areas in scope and therefore did not pass to the next stage. The 16 EOIs regarding recycling also did not pass to the next stage in light of the fact that recycling was removed from the technology areas considered to be in scope for capital funding through the ATF.

Figure 3: Capital applications



Source: Frontier Economics analysis of EOI competition data provided by APC.

Despite the level of interest in ATF funding, the ATF has underspent relative to its planned disbursement to date (in both R&D and capital strands). There was some consensus across delivery partners that this was in part because the planned profile was not backloaded enough from the outset, and in part because proposals took longer to be developed and longer to assess than expected.

Have application processes been seen to be fair, effective and proportionate? Why (not)?

There is consensus across capital applicants and delivery partners that the application process for capital funding has been problematic in terms of how long it has taken for applications to reach final assessment, and final grant offer in the case of approved projects.

For example, of the 33 companies that submitted an EOI before December 2021 and were approved, only three had reached final grants offer stage as of December 2022. Those projects that have reached final grants offer took on average: around one and a half months for EOIs to be approved, a similar length of time before full applications were then submitted, around seven months for an offer in principle to be made in light of the full application, and nearly 9 months to then progress to final grants offer letter. One of the longest steps in the latter process was external due diligence which has taken some applications up to 4 months.

Capital applicants felt the EOI stage of the application process had been effective and proportionate. The remainder of the application process, however, they felt took too long. There was a sense from some businesses that if they knew how drawn out the process could be then they may not have applied in retrospect. There was also a feeling that this process would not be appealing to smaller companies, while larger companies with more resources may be better placed to take the risk.

“The actual capital process took a huge amount of time.....I think if we'd have told people at the outset, it was going to take this long, I think we would have been told to not bother.” Capital applicant

“It goes from being an opportunity to a risk the longer it drags on.” Capital applicant.

There were several challenges highlighted in the full application process that contributed to applications taking a long time to progress.

One was that applicants found it challenging to provide value for money information in a way that they felt satisfied assessors and found questions relating to programme counterfactuals to be very frustrating. They remarked that this was very different to the way the industry is used to making business cases for investment. They felt there was too much emphasis on what the negative impact was if funding was not provided, and highlighted that other experiences in other European countries tends to be more positively focused.

“There is no such constraint [in other European countries]. You know the way that the projects are judged are more about the multiplier effect, the impact that they

would have on a region, whether or not you're bringing new technology, the number of new jobs that you're creating.” Capital applicant

“It became very clear that the kind of negative counterfactual was where the emphasis was, and it’s less of an issue that we wanted to use this as a platform for further investments.” Capital applicant

“This is an automotive transformation fund. It’s specifically designed to support the automotive industry and an understanding about how investment decisions are made in the automotive industry should be at the heart of the way the fund is designed” Capital applicant

“It can be quite an onerous process to manage and document and evidence. And for people or businesses that haven’t operated in the region it can be quite confusing and could be a detriment to them coming to the UK to invest.” Capital applicant

Delivery partners and capital applicants both alluded to difficulties in having to demonstrate that an investment could not go ahead without government support, or that a plant would close or locate elsewhere without government support, rather than being able to make a positive case for an investment and being judged on those merits.

“I think that one of the challenges with the ATF is that the narrative you build, the bar that you have to reach in order to be successful, is almost creating an existential case for your business. You know, if we don’t get this investment, this will close. It’s very binary, very all or nothing.” Capital applicant

The external audit required for the due diligence assessment was another particular area of concern. Applicants felt that some of the auditing and due diligence processes had not been sufficiently communicated to them at the initial EOI stage. They felt the process was both arduous and repetitious. Some also noted the high cost for external auditors and were unsure if newer businesses would be able to pay for this ‘out of pocket’. There was also a lot of dissatisfaction with the length of time external due diligence reports took, and a general consensus from both applicants and delivery partners that due diligence providers ‘make work for themselves’.

“There has to be an external check and balance here. We’re keenly aware it’s a large amount of public money. But how could we speed up that process?” Capital applicant

Applicants and delivery partners also noted difficulties with the process of appraisal by the Industrial Development Advisory Board (IDAB). IDAB has a statutory role to provide independent commercial and financial advice to government ministers on large investment decisions. Capital applicants reported a lack of clarity on this process. Several delivery partners thought that IDAB was too risk averse, and that they could and should be more flexible with the conditions that they recommend are placed on grant offers (such as the proportion of required private finance that has to be raised in advance of any grant payment).

“The IDAB process... there was a lot of preparation for that from BEIS. You got the sense that they were having to spend a lot of time getting ready for that, but [IDAB’s] role and their requirements weren’t entirely clear. It definitely was not entirely clear what was going on and what we should and shouldn’t be doing.”
Capital applicant

“When they are looking at risk and identifying risk, what they’re actually talking about is pure financial maths risk and that isn’t the full picture because actually some of those established players, the technical risk is way higher than what it is in some of these new companies. So there’s, there’s not a balance, there’s not a holistic view of these applications.” *Delivery partner*

“One company has nothing to lean back on, no money, no parent company, no bank guarantees. But another has been around for decades and is prepared to offer the government a guarantee on the grant we pay out. You can’t use the same approach with every single case. The board could choose to be more flexible.” *Delivery partner*

There was also near consensus from capital applicants that the process felt quite adversarial at times, and that this risked disincentivising bringing the activity to the UK.

“We didn’t really get a warm welcoming feeling from the whole process to a degree.” *Capital applicant*

“They need to protect the taxpayer, but an onerous process like this doesn’t help attract inward investment when there might be an easier grant process in another location being considered.” *Capital applicant*

Delivery partners were aware of the challenges applicants were facing with the application process and the potential commercial challenges from delayed timescales. However, they also highlighted the importance of appropriately using public money, and the novel and complex nature of the ATF. Applications for funding would therefore be expected to take time to assess to ensure that they are in line with legal, subsidy control and managing public money requirements.

One delivery partner highlighted the challenge of assessing and evaluating bids when there are not necessarily competing proposals from the same technology area being assessed at the same time that can be compared. This meant that applications were effectively competing against an internally set bar for funding (rather than competing against other similar proposals), leading to extended timescales as the delivery partners and applicants sought to ensure that applications were as near perfect as possible before being finally assessed.

There was consensus across delivery partners that applications were taking longer to progress from EOI to final grant offer than was anticipated at the outset of the policy. This was variously attributed to: the complexity (and sometimes low quality) of the applications received, resource constraints for assessing applications given that complexity (particularly within the CGL team),

a lack of clarity earlier in the process on scope and ‘red lines’ that would prohibit public funding, and the length of time taken by external due diligence.

“We work very proactively with the clients, but the process is complex and there are lots of people involved in the cases and I think as it evolves, it can create some frustration.”
Delivery partner

Despite the challenges with the application processes, applicants were quick to emphasise that the support they received from all the delivery partners was very helpful, and that they always felt that the individuals involved were doing the best they could to move projects along within the processes that were set.

“The support we got and the people we dealt with were all extremely professional, extremely encouraging and clearly wanted to make this work. The team worked as well as they could within the process that we got.” Capital applicant

Theme 5: Capital investment support: delivery and monitoring

Key findings:

- While there was recognition from capital applicants of the need to monitor the delivery of large public investments, there is some concern that processes for monitoring investments may be onerous.
- Capital applicants stressed that investments need to remain aligned to business needs in an evolving commercial context and therefore the potential need for flexibility in future was highlighted.
- Capital applicants also highlighted the difficulties in managing costs and meeting forecasts on the exact timeframes planned in order to meet monitoring requirements and draw down funding.

Are processes to support, monitor and track funded projects expected to be effective and proportionate?

The ATF team have worked to try and ensure the monitoring requirements for capital projects will be effective and proportionate. They anticipate quarterly review meetings, led by CGL and APC project delivery leads, which will focus on the conditions in the grant offer letter (such as jobs and investment) and other relevant Key Performance Indicators. A summary slide of progress will be provided for the delivery board, with an annual review expected.

At the time of interview, few capital applicants interviewed were in a position to discuss likely processes to monitor and track their funding. Based on their experience of the application process businesses expected that the level of monitoring detail required would likely be onerous. In particular, one capital applicant highlighted the difficulty in providing detailed data

each year on different categories of jobs, particularly when job titles are likely to change over the next decade.

“You could argue [the monitoring requirements] are proportionate. But I do think that processes could be streamlined a lot. If we only had to deal with overall numbers “that is how many jobs we safeguarded, that is how many jobs we created” that’s easy. The problem is you’ve got to provide categories that are quite prescriptive, and in a fast growing industry, the job name we had two years ago... they’re totally different. You’ve got to reconcile everything and it’s extremely time consuming in terms of managing this.” Capital applicant.

One respondent also worried about a potential lack of flexibility in delivery and how this interacts with requirements on grant reporting. They stressed that the funding needed to meet their ongoing business needs to be effective, including for their investment to be able to change to meet an evolving commercial environment. They discussed their experience with previous grant funding, and their concern about whether the ATF might be similarly inflexible.

“We benefited from a previous [non-ATF] grant. We wanted to move a particular piece of equipment to keep costs down and make best use of it. They opened up the whole conversation around penalties involved in moving it because the previous monitoring period hadn’t quite finished, even though we were moving it for positive purposes, within the same country and being open and honest about it.” Capital applicant.

The delivery partners noted that processes were in place to facilitate project change requests.

One area that applicants raised concerns about was how they would manage likely costs and forecasts for the next two years to meet monitoring requirements and draw down funding. They felt managing the programme will be a balancing act.

“You’ve got to make sure that you actually hit your target because if you’re under, you’ve lost the money. So it’s a really big balancing act when you’re putting CapEx in place because, the delivery of equipment for example have taken sometimes six months longer. So when it takes six months longer, the invoices takes six months longer. And then all of these, have around 60 days payment. So you can see how that becomes difficult, this all becomes a juggling act to try to get right and that takes a lot of time and effort.” Capital applicant

Theme 6: Overall programme delivery

Key findings:

- All capital and R&D applicants were extremely positive about the individuals they engaged with regarding the ATF. It was felt they worked hard to make the policy a success within the constraints they faced.

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- The internal organisation of the ATF was generally felt to be good, with understandable tensions where delivery partners have different objectives.

How effective has the ATF been in engaging other programmes and stakeholders in order to achieve the intended outputs, outcomes and impacts?

Overall, the ATF was seen as having created good links with other organisations and stakeholders to add to the intended programme outcomes. This includes links to the Faraday Battery Challenge, to ensure it aligns with a whole-system approach to supporting the automotive sector, and through links to other Government departments such as DBT to help support international awareness and applications to the programme.

Applicants have found APC to have good links to help them consider their overall strategy and strategic links, and give them the opportunity to discuss this in meetings.

“There’s always this couple of minutes or five minutes of discussion that the APC initiates about how not just about the project, but strategy-wise, how we are looking at the UK as a location, and what our future options and plans are.” R&D applicant

Several stakeholders mentioned that there would be benefits from continuing to link with wider sectors and stakeholders, to reduce duplication. One applicant used the example of the British Geological Survey who have done research into the raw materials supply chain for batteries. A few of the applicants we spoke with would like to see more links between APC and the Department for Transport, and also for them to support more links between manufacturers and materials producers.

“We’re all pulling in the same direction, but on different ropes it feels, and I think if you had that linking theme across various different organisations that deliver policy, that might also help the system get to where we want to go” R&D applicant

Delivery partners also discussed reaching out to wider sectors including engaging with chemical sector and the energy sector to ensure they were aligned and not duplicating work there.

One capital applicant felt that the Government has not done enough in their view to champion the outcomes of the ATF. They stressed that they thought it would be helpful to celebrate the successes of the ATF – whether that is investments directly funded by the ATF or additional investments that are crowded in as a result – to paint the Government support in the automotive sector in a more positive light.

“The Government really hasn’t done as much as it could do to champion this and to demonstrate what a great success story that this actually is for the UK.....it was almost as though they just they didn’t want or couldn’t see the value in being associated with it.” Capital applicant

How effective and efficient has the internal organisation of the ATF been?

There was broad consensus from across the spectrum of those consulted that the delivery partners have done a good job at joining up different areas to identify and most effectively use the right tools and people to deliver the ATF programme. In particular, it was felt that having people involved who understand the sector and the research available was particularly key to ensuring things operate effectively and ensuring all involved understand the importance of what the ATF is doing to ensure high levels of motivation.

“Everybody in all of the delivery mechanisms sees the importance of what ATF is doing and is highly motivated to overcome issues and obstacles as they arise.”

Wider stakeholder

To support the delivery of the programme and ensure effective communication, Programme Boards were seen as useful, supported by further calls and meetings if specific issues need to be addressed further.

It was noted by some delivery partners that the involvement of several different organisations with differing priorities could create some challenges in terms of communication; however, they felt ensuring an ongoing open dialogue was important to ensuring the programme ran effectively and was able to continuously improve.

“I think we've always got a natural tension, right? We've got from an APC perspective one side that's that industry voice and that industry perspective. The other side is the government voice and the government perspective and we try and manage that. It is probably good to have that natural tension there.” Delivery partner

“As long as we've got continual dialogue on things, then it's fine. Then you either come to a position where people agree or actually there are sometimes positions that you don't agree with, but you just accept it that that is what's going to happen. And that's OK as well because we are merely officials delivering this. We're not decision makers in any of this. We're just officials.” Delivery partner

It was suggested by some delivery partners that there were delays in the approvals process due to the resource constraints of CGL, who were having to spend far longer on each application than originally expected.

From the applicant's perspective, most seem happy with the different organisations involved and see how they can add value to the process.

As mentioned above, R&D applicants found having monitoring officers from both APC and IUK useful. Capital applicants also found having two contacts (one from APC, one from CGL) with different emphases to be very helpful during the application process, and they knew who to go to for different types of questions.

“The case officer process is a good way of handling things and just having that relationship manager who can guide you through the process was useful.” Capital applicant

“I think they're probably coming from slightly different hill tops. I think the APC are really wanting to drive the industry and drive the investments, possibly a little bit harder than BEIS. The APC team are probably a bit more on the front foot of wanting to enable the investments rather than the due diligence process that BEIS lead, which feels a little bit coming from a negative perspective if you need to prove absolutely everything.” Capital applicant

Theme 7: Synthesis

Key findings:

Several aspects of the ATF processes were felt to be particular strengths that would support delivery of the ATF's intended outputs, outcomes and impacts. This included:

- The focus of the ATF across the breadth of the EV supply chain and on feasibility studies and capital investment which were unsupported before the ATF.
- The 'dual monitoring officer' structure, providing organisations with an ongoing point of contact to discuss 'next steps' for them and their ATF funded investments.

In other respects some processes were felt to be working less well. Applicants for capital funding have felt that:

- The timescales involved for applications for capital funding have been problematic for themselves and risk being a deterrent to others
- The “government” (in general, distinct from those involved in delivering the ATF) has come across in a negative and adversarial light which may discourage inward investment

The ATF is a novel policy, and the capital projects are complex and seeking large amounts of public investment. It is therefore right that applications (and funded projects) are subject to significant scrutiny in order to protect public money. This will inevitably take time and leave applicants with a particular impression of the process. However, the lengthy timescales to access capital funding also poses a risk: it increases the chance that the ATF is unable to deliver its intended outputs, outcomes and impacts. Four specific examples were identified through the consultation exercise conducted for this process evaluation

- If the ATF is unable to dispense its funding as planned, this would reduce the number of funded investments and reduce the chance that an EV supply chain is successfully kick-started in the UK.

- Delays in funding projects means that opportunities to crowd in other investments could be missed.
- If the majority of funded projects end up being of particular type (e.g. those where approval is more straightforward, or where the applicants are better placed to persevere with their projects despite the long timeframes), valuable investment opportunities may be missed.
- The negative experience of companies applying for capital funding may put companies off applying for funding or locating in the UK.

Key recommendations:

There are four recommendations that would be expected to speed up (and improve in other respects) the application process without unduly risking the good use of public funds.

- **Recommendation 1:** Some aspects of the full application should be brought earlier in the process – in particular, including clearer guidance and feedback on the limitations on what is applicable for government funding. This may be achieved through extending the content of the pre-application questionnaire, or by ensuring that all applicants complete the pre-application questionnaire if this is not currently the case.
- **Recommendation 2:** Clearer guidance and support on possible ways to make the case for public investment should be delivered by CGL at the start of the full application process. While recognising that a justifiable case for public investment needs to be in line with legal, subsidy control and managing public money requirements, consideration should be given to whether the emphasis that capital applicants demonstrate an existential need for public funding could be reduced.
- **Recommendation 3:** Clearer guidance should be provided on the expectations from external due diligence in order to help applicants contain costs and timescales. This could include imposing maximum report sizes and strongly making the recommendation to applicants that they obtain quotes from multiple due diligence providers.
- **Recommendation 4:** The Industrial Development Advisory Board (IDAB) has a statutory role of advising government regarding requests for financial support from businesses. Within that role, the ATF programme interacts with IDAB should be re-examined and documented to ensure that the scope of advice sought from IDAB, and the flexibility that IDAB have with regard to recommendations, is understood by all parties.

While these recommendations above would be expected to improve capital applicants' experiences and therefore impressions of UK government support for the EV industry, we also recommend advertising the successes of the ATF more.

- **Recommendation 5:** The successes of the ATF should be publicly celebrated to improve the perception of the ATF and government support for the automotive industry in the UK.

There two small improvements that we think could be made to future R&D competitions.

Recommendation 6: IUK should consider whether there are any further steps that could be taken to make the ATF R&D competitions as accessible as possible to those who have not applied for IUK funding before.

Recommendation 7: Delivery partners should confirm internally that there is a sufficient diversity of professional perspectives and experience among those appointed to assessor panels. If not, they should consider whether and how assessor recruitment processes could be adjusted in order to achieve this.

Finally we have two more general recommendations.

- **Recommendation 8:** While not necessarily within the scope of ATF processes to fix, the delivery partners should explore whether more flexibility can be given around the timing of payments to funded projects, particularly focused on removing rigidities in the timing of payments around the end of the government's financial year.
- **Recommendation 9:** Further learnings from the ATF experience should be recorded for the benefit of future policy design. This should include updated documentation on the final ATF processes, as well as a record of why considered process changes were or were not implemented.

How well do processes appear to support the delivery of intended outputs, outcomes and impacts of the ATF?

Drawing together the findings discussed in the other themes, there are several aspects of the ATF processes that were felt to be strengths and would support the delivery of the ATF's outcomes and impacts. The main ones were:

- The design of the ATF – in particular, the focus on R&D at higher manufacturing readiness levels and capital investment (both of which were felt by all stakeholders to be unserved in the absence of the ATF), and the fact that the ATF was focused on the breadth of the EV supply chain rather than just particular stages. This was thought by all stakeholders to be vital for ensuring that a supply chain is anchored in the UK.
- The 'dual monitoring officer' structure whereby each project had ongoing contact not just with someone checking on the delivery of their project from an administrative point of view, but also with someone interested in the technology side of things. This was felt by companies to be very useful for signposting them to additional support and thinking about 'next steps'. This should help the ATF investments have more enduring impacts.

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- The personal motivation and genuine belief in the mission of people involved in the ATF was commented on by many companies. This evidently helped companies persevere with their ATF applications even when they found processes were frustrating.

The findings under themes 1-6 made clear that there are some aspects of ATF processes that are working less well, resulting in capital applications taking long periods of time to be assessed and companies feeling that the government was coming across in a negative and adversarial light.

The ATF is a novel policy, and the capital projects are complex and seeking large amounts of public investment. It is therefore right that applications are subject to significant scrutiny in order to protect public money. In the absence of a sufficiently robust application process there would be the risk that the ATF spends public money on ill-advised investments.

However, the views collected from applicants clearly reveal that companies believe the timescales involved have been problematic for themselves and are a deterrent to others. These issues may inhibit the ATF's ability to deliver its expected outputs, and therefore its hopes for outcomes and impacts.

The big picture risk is that the ATF is not able to disperse its resources in line with the profile of funding allocated by HM Treasury. If HM Treasury does not agree to a re-profiling of spending then resources will be lost from the ATF and the outputs from the policy (i.e. the number of projects funded) will be smaller. This will reduce the chance that the collection of funded investments are sufficient to crowd in additional private investment, resulting in an EV supply chain not being anchored in the UK.

Capital applicants also highlighted other consequences that they perceived from aspects of the ATF processes. These included:

- The delay in investment projects being approved may mean that opportunities to leverage in additional investments are missed. This may be particularly detrimental for the ATF's ability to achieve its intended outcomes, which rely on funded projects crowding in additional private investment elsewhere in the EV supply chain.
- The risk aversion exhibited in the approvals process, the timescales involved, and the upfront costs for aspects such as due diligence may mean that the majority of funded projects end up being of a particular type. For example, those where approval is more straightforward, or where the applicants are better placed to persevere with their projects despite the long timeframes and costs involved – which might imply applications by large established companies with secured private finance. This could mean that valuable investments are not supported by the ATF and do not take place.
- The negative overall experience of companies applying for funding risks deterring other companies from applying for funding or from investing in the UK.

What are the key lessons learned and recommendations for process-related changes?

Capital application, delivery and monitoring processes

The ATF processes aim to strike a difficult balance, between making funds easily available to companies to encourage investment in the EV supply chain in the UK while also providing appropriate protection to public money. The ATF capital investments are large and complex, and it is important that such investments do not involve an inappropriate amount of risk and that they represent the best likely return on policy objectives for the taxpayer.

In our view the balance of evidence suggests there is a need to speed up the capital application processes if the ATF is to have the impacts intended. We have four recommendations that would be expected to speed up (and improve in other respects) the application process without unduly risking the good use of public funds.

BEIS, APC and CGL should consider whether there are some stages of the final application process that should be brought earlier in the process. Some companies and some delivery partners thought it would be more efficient if, for example, limits on the funding available or ‘red lines’ that would prohibit public funding limitations were made clear at EOI stage rather than further down the line. This would save resources being taken up by projects that are highly unlikely to be funded, and reduce the time taken for EOI applications to be developed into suitable full applications.

In our view, to achieve this the CGL team should be involved earlier in the application process. However, we understand the desire for keeping the EOI stage more technologically and strategically focussed – in particular, so as not to put off companies at an early stage. This suggests making better and uniform use of the pre-application questionnaire between the EOI stage and full application development.

Recommendation 1: Some aspects of the full application should be brought earlier in the process – in particular, including clearer guidance and feedback on the limitations on what is applicable for government funding. This may be achieved through extending the content of the pre-application questionnaire, or by ensuring that all applicants complete the pre-application questionnaire if this is not currently the case.

BEIS, APC and CGL need to consider how to best help capital applicants understand how to make a case for public investment, since this is different to how they would normally make private business cases. Helping capital applicants in this way is difficult – it is not simply a case of more guidance or support as capital applicants reported having lots of this already. We suggest focussing on who delivers that advice, and when in the application process the advice is delivered, as areas for improvement.

Related to this, a finding coming out of theme 4 was that capital applications were effectively competing against an internally set bar for funding (rather than competing against other similar applications for support), leading to extended timescales as the delivery partners and

applicants sought to ensure that applications were as near perfect as possible before being finally assessed. Going forwards, firms should not be encouraged to strive to make an existential case for public investment in their project (though a suitable case for public investment in line with government principles should be made). This should speed up the process and be more comfortable for companies, without necessarily reducing the number of projects that are approved for funding through the ATF.

Recommendation 2: Clearer guidance and support on possible ways to make the case for public investment should be delivered by CGL at the start of the full application process. While recognising that a justifiable case for public investment needs to be in line with legal, subsidy control and managing public money requirements, consideration should be given to whether the emphasis that capital applicants demonstrate an existential need for public funding could be reduced.

It would be highly desirable to speed up and reduce the costs involved in external due diligence. However, this is challenging to achieve, as this is not under the direct control of ATF processes. Due diligence needs to be independent of government influence, and to provide adequate scrutiny of applications. That said, it may be that there are some changes to ATF guidance that help capital applicants to rein in the costs and timescales of due diligence processes while maintaining adequate scrutiny.

Recommendation 3: Clearer guidance should be provided on the expectations from external due diligence in order to help applicants contain costs and timescales. This could include imposing maximum report sizes and strongly making the recommendation to applicants that they obtain quotes from multiple due diligence providers.

IDAB has a statutory role of providing commercial and financial advice to Government Ministers on applications for more than £5 million of public support from companies who looking to make capital investments. This will apply to many of the capital applications to the ATF. The evidence from delivery partners suggests that within this role there is scope for IDAB to tailor conditions placed on applications more (based on the circumstances of the applicant and the risks associated with the requested investments), which could speed up the capital application process without unduly risking the good use of public funds.

Recommendation 4: The Industrial Development Advisory Board (IDAB) has a statutory role of advising government regarding requests for financial support from businesses. Within that role, the way the ATF programme interacts with IDAB should be re-examined and documented to ensure that the scope of advice sought from IDAB, and the flexibility that IDAB have with regard to recommendations, is understood by all parties.

The scrutiny required for projects to receive public funding will probably always leave some applicants with a negative impression of the government's interest in supporting the EV supply chain in the UK (though this would be expected to be improved as a result of recommendations

1,2,3 and 4). To limit the negative perception spreading among the wider industry we suggest that it will be important to advertise the successes of the ATF.

Recommendation 5: The successes of the ATF should be publicly celebrated to improve the perception of the ATF and government support for the automotive industry in the UK.

R&D application, delivery and monitoring processes

The findings in themes 2 and 3 suggested that stakeholders are satisfied that the R&D application, approvals and monitoring processes were for the most part working well. We make two small recommendations that should be considered in advance of the future ATF R&D competitions. The main one is in response to the concern that those who have not accessed IUK funding before will find the process more difficult than those who have prior experience. While this is to some extent inevitable, IUK should consider whether there are any further steps that could be taken to make the ATF R&D competitions as accessible as possible to new entrants. There is lots of guidance and support already made available, so this may be a matter of examining when such support is used by applicants, and considering when and how different resources (such as bespoke input from APC or guides to good applications) are signposted in the ATF competitions.

Recommendation 6: IUK should consider whether there are any further steps that could be taken to make the ATF R&D competitions as accessible as possible to those who have not applied for IUK funding before.

Recommendation 7: Delivery partners should confirm internally that there is a sufficient diversity of professional perspectives and experience among those appointed to assessor panels. If not, they should consider whether and how assessor recruitment processes could be adjusted in order to achieve this.

General learnings and recommendations

Both R&D and capital applicants highlighted the challenges that arise with the fiscal year rigidity of budgets and the difficulty of always sticking to planned timetables given supply chain and commercial disruptions or the need to raise private finance. While not necessarily within the scope of ATF processes, the consensus and strength of these concerns mean that it would be valuable for the ATF delivery partners to consider whether there are any further measures that can be taken to improve flexibility.

Recommendation 8: While not necessarily within the scope of ATF processes to fix, the delivery partners should explore whether more flexibility can be given around the timing of payments to funded projects, particularly focused on removing rigidities in the timing of payments around the end of the government's financial year.

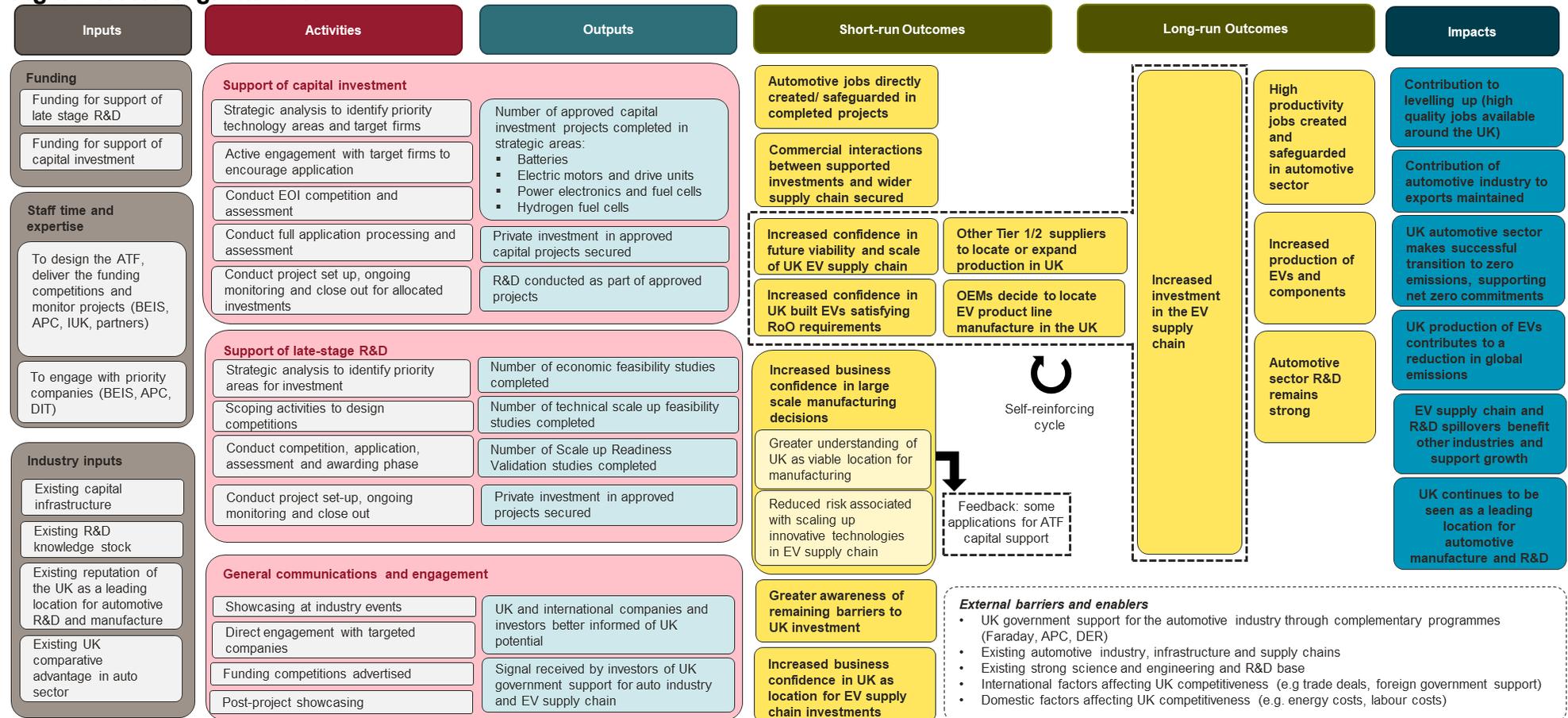
Finally, the delivery partners' experience of making large capital investments has evolved considerably since the ATF started and will continue to increase over the next two years. While

this process evaluation has recorded many learnings, future lessons learned should also be documented. It would be highly advisable for the delivery partners to take stock again when the ATF draws to a close, to ensure that further learnings from the ATF experience are recorded for the benefit of future policy design.

Recommendation 9: Further learnings from the ATF experience should be recorded for the benefit of future policy design. This should include updated documentation on the final ATF processes, as well as a record of why considered process changes were or were not implemented.

Appendix A ATF logic model

Figure 4: ATF logic model

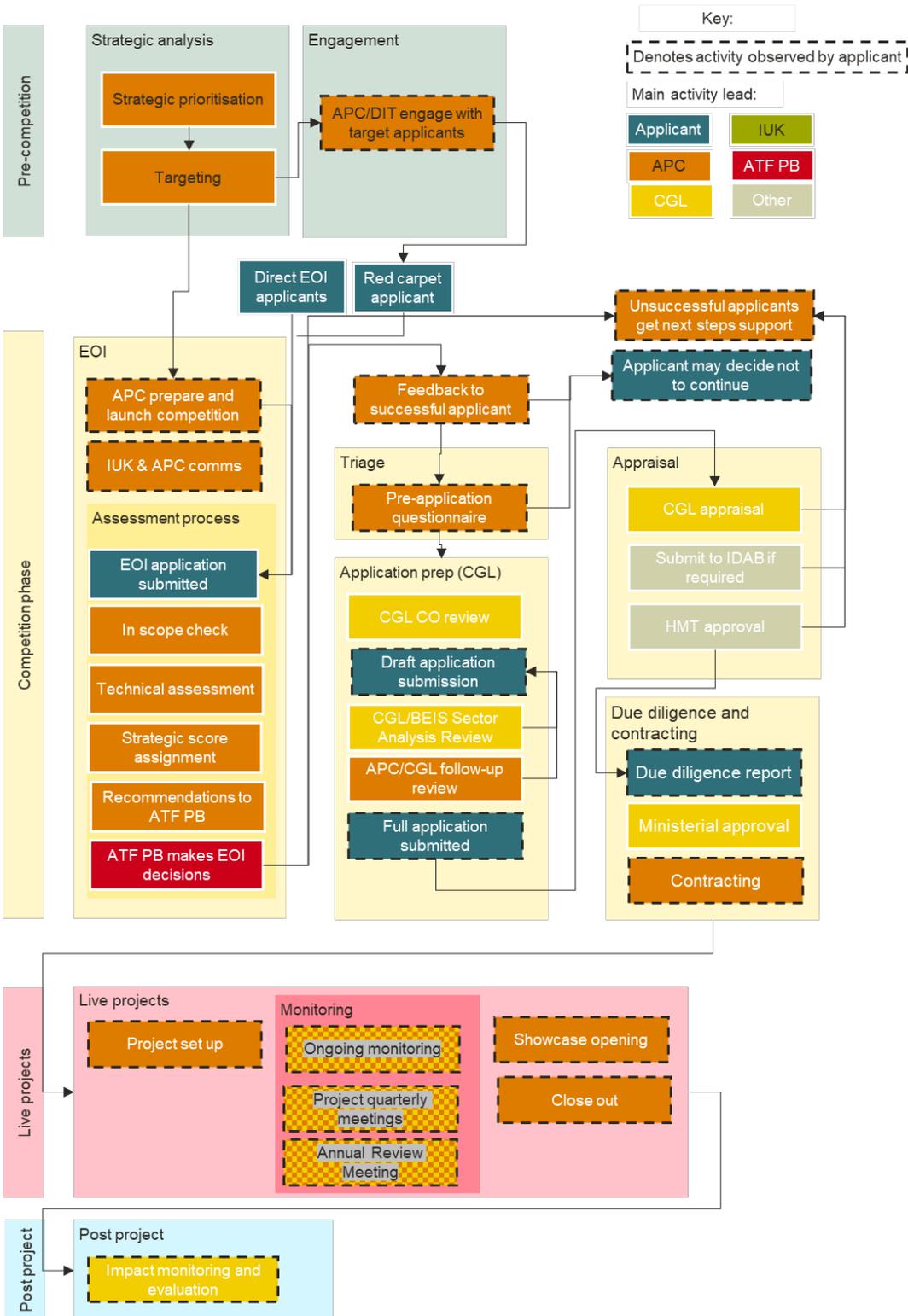


Source: Frontier Economics

Appendix B ATF process map

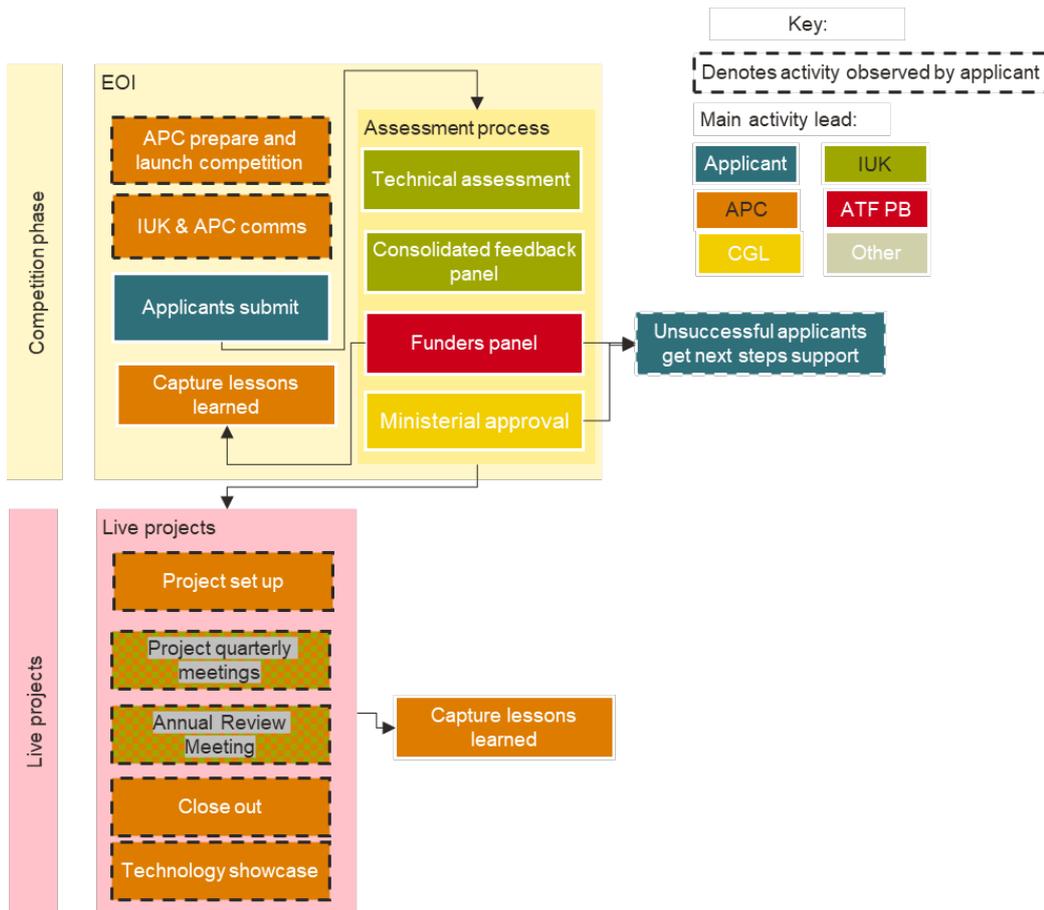
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Figure 5: ATF process map: capital investment support



Notes: APC = Advanced Propulsion Centre, CGL = BEIS Central Grants and Loans, IUK = Innovate UK, ATF PB = ATF Programme Board, IDAB = Industrial Development Advisory Board. Colours denote the main activity lead. Those involved in each high-level stage of the process are summarised in Figure 1. Source: Frontier Economics.

Figure 6: ATF process map: R&D support



Notes: APC = Advanced Propulsion Centre, CGL = BEIS Central Grants and Loans, IUK = Innovate UK, ATF PB = ATF Programme Board. Colours denote the main activity lead. Those involved in each high-level stage of the process are summarised in Figure 1. Source: Frontier Economics.

Appendix C Detailed process evaluation research questions

Table 1: Process evaluation research questions

Research Question	Sub-questions
Design of the ATF	
1. Has the strategic prioritisation process of the ATF targeted the right mix of technologies and companies?	
2. How well do the strands of the ATF align and how well does the ATF align with or complement other government activities?	
Late stage R&D support: application process	
3. Has the ATF attracted interest from organisations in priority technology areas? Why (not)?	<p>Has the number of applications met expectations? If not, why?</p> <p>Has there been any under- or overspend with respect to the intended targets? If so, why?</p> <p>How successful has the ATF been at engaging the full range of strategic priority areas?</p> <p>Was there lots of interest from non-eligible sectors? If so, why?</p>
4. Have application processes been seen to be fair, effective and proportionate? Why (not)?	Have decisions about which applications to fund been made using a clear, fair and effective process?
Late state R&D support: delivery and monitoring	
5. Are processes to support, monitor and track funded projects effective and proportionate?	<p>How effective was the programme in communicating and working with external project participants?</p> <p>How well does delivery monitoring enable the team to respond to delivery or</p>

	<p>performance issues promptly and effectively?</p> <p>What improvements could be made to delivery monitoring and outcome monitoring?</p>
Capital investment support: application process	
6. Has the ATF attracted interest from organisations in priority technology areas? Why (not)?	<p>Has the number of applications met expectations? If not, why?</p> <p>Has there been any under- or overspend with respect to the intended targets? If so, why?</p> <p>How successful has the ATF been at engaging the full range of priority sectors and organisations?</p>
7. Have application processes been seen to be fair, effective and proportionate? Why (not)?	<p>Have decisions about which applications to fund been made using a clear, fair and effective process?</p> <p>Have applicants experienced a smooth process with no major surprises along the journey?</p> <p>Have project resources been sufficient and appropriately allocated to ensure a smooth process?</p>
Capital investment support: delivery and monitoring	
8. Are processes to support, monitor and track funded projects expected to be effective and proportionate?	<p>How effective is the programme expected to be in communicating and working with external project participants?</p> <p>How well is delivery monitoring expected to enable the team to respond to delivery or performance issues promptly and effectively?</p> <p>How well is outcome monitoring expected enable the team to understand if the programme is on track to deliver outcomes?</p>

	<p>To what extent is QA for the monitoring data expected to be sufficiently robust?</p> <p>What improvements could be made to delivery monitoring and outcome monitoring?</p>
Overall programme delivery	
9. How effective has the ATF been in engaging other programmes and stakeholders in order to achieve the intended outputs, outcomes and impacts?	How effective was the communication in engaging a diversity of external stakeholders?
10. How effective and efficient has the internal organisation of the ATF been?	<p>How effectively do the two strands of ATF funding work together?</p> <p>How well do the organisations involved with the ATF engage with one another?</p> <p>Were resources for administering each stage of the policy sufficient and suitably allocated?</p>
Synthesis	
11. How well do processes appear to support the delivery of intended outputs, outcomes and impacts of the ATF?	How effective have different parts of the ATF delivery process been?
12. What are the key lessons learned and recommendations for process-related changes in delivering the ATF?	

Source: Frontier Economics.

Department for Business and Trade

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