

Introduction

1. The purpose of this prospectus (and any associated published procurement notices) is for the Environment Agency (the “**EA**”) to make known its intention of a planned procurement and to commence the market engagement process (in advance of commencing any formal procurement process) for Logistics Planning Tools (“**LPT**”) which support:
 - a. the rostering of staff for standard duty, incident standby and incidents; and
 - b. cost effective and timely sharing of equipment assets held in various EA and 3rd party locations for incident management support (this is referred to as “**Mutual Aid**”).

The solution could be comprised of two separate applications from one or more suppliers or a single integrated solution, perhaps based on a common platform to facilitate data exchange and deployment.

2. Prospective tenderers are requested to read this prospectus, and to complete a market engagement questionnaire at Annex 5 and e-mail a PDF to Neil.Widdop@defra.gov.uk. EA may then contact prospective tenderers to discuss their responses in further detail.

Disclaimer

3. This prospectus is written and provided in good faith; EA reserves the right to alter any aspect of this document, or to not proceed with the procurement in any way. This prospectus summarises certain aspects of the procurement but does not purport to contain complete descriptions of it, nor to be all inclusive or contain all the information that a prospective tenderer may require when determining whether to take part in this market engagement process. No representation or warranty, express or implied, is or will be made, and no responsibility or liability is or will be accepted by EA or any of its advisors as to the accuracy, adequacy, or completeness of the information within this prospectus. This prospectus is not intended to form the basis of any investment decision or other evaluation by the recipient(s) and does not constitute and should not be considered as a recommendation by any person. EA shall not be liable for any costs or expenses of any prospective tenderer in relation to any matter in connection with this market engagement process, howsoever incurred.

Background

4. Defra is the UK government department which is responsible for improving and protecting the environment. Defra aims to grow a green economy and sustain thriving rural communities, and also support the UK’s world-leading food, farming and fishing industries. Defra works with 33 agencies (including the EA) and public bodies¹, collectively referred to as “**Defra Group**”.
5. Environment Agency works to create better places for people and wildlife and support sustainable development. Within England, Environment Agency are responsible for:
 - a. regulating major industry and waste;
 - b. treatment of contaminated land;
 - c. water quality and resources;
 - d. fisheries;
 - e. inland river, estuary, and harbour navigations; and
 - f. conservation and ecology.
6. The Environment Agency are also responsible for managing the risk of flooding from main rivers, reservoirs, estuaries, and the sea.
7. The LPT project’s vision is to deliver strategic incident management resourcing tool(s) for incident management, including both people and equipment. The project is intended to ensure our tools and ways of working can support logistical planning and coordination so that the right resources can be planned, requested, and directed to the right locations in advance of when they’re needed.
8. The LPT is made up of two principal services: staff rostering and equipment sharing. More details on what these involve is contained in Annex 2 (LPT capabilities).

¹ <https://www.gov.uk/government/organisations#department-for-environment-food-rural-affairs>

9. There are two systems already in place, the Electronic Rostering Tool (“**ERT**”) and Mutual Aid Tool (“**MAT**”) which provide some of the functionality required, but they do not adequately meet the business needs or provide a suitable technology basis for extension or further integration.
10. The ultimate objective of the project is to develop and embed an improved and nationally consistent service for managing the resources (people and equipment) required to support incident response and improve the associated ways of working. A more detailed list of objectives is contained in the section entitled Annex 1 (LPT objectives).
11. We plan to do this by replacing and / or enhancing the current systems that help us manage the strategic resourcing of incidents for both people and equipment.
12. To be successful, the systems will:
 - a. deliver duty and incident rostering capability;
 - b. facilitate and manage Mutual Aid capability;
 - c. provide a better user experience;
 - d. provide enhanced reports and situational intelligence for improved decision making;
 - e. facilitate integration with other tools by providing and consuming services and data, including:
 - i. those used for staff collaboration and productivity e.g., Outlook, MS Teams, HR skills and capability management;
 - ii. those used to manage incident response e.g. incident reporting and flood warning systems;
 - iii. those used to manage asset inventories for fleet and equipment;
 - iv. geo-representation of data within existing EA GIS Services.
 - f. be fit for current business processes and future expectations.

Potential implementation challenges

13. The existing business and IT landscape presents challenges for implementation and these are summarised below.
 - a. The existing incident management rostering, staff and equipment sharing is delivered using a mix of supported systems:
 - i. ERT – a 3rd party hosted solution for duty and standby rostering.
 - ii. MAT – a bespoke SharePoint/SQL based application which is used to manage inter-area requests and offers for both people and key equipment. It also acts as an operational data store for the key equipment, holding a copy of data from a fleet management system and acting as a the “master” store for other equipment that is typically shared between areas or allocated to different incidents within an area. The mutual aid for people functionality also includes support for tracking logistical information such as where staff are staying when not on duty and their travel arrangements.
 - iii. Local incident management rosters – managed using MS Excel within each area – a shortfall of staff on an incident roster will result in mutual aid requests for staff with suitable skills from other areas.
 - b. There are multiple regional areas supported by centralised national teams for major incidents. A significant aspect of major incident support is in the “mutual aid” that is requested, offered and provided between different areas.
 - c. There are around 6500 staff across Environment Agency and the wider Defra Group who have some incident-related role; most of these have another main day to day working role and these people switch to their incident role when incidents happen, and more resources are required to respond to the incidents.

- d. There is a core group of a few hundred staff who have more significant incident management roles as part of their day-to-day workload – these staff may also have other skills and incident specific roles.
 - e. Incidents can happen anytime of the year and can cover pollution and other environmental situations, as well as the more widespread flooding which tends to be more common during winter months.
 - f. The EA incident management user community includes many staff who perform incident roles only on an occasional standby basis so a common look and feel along with interoperability with EA intranet systems, built around MS Office 365 (Teams, Outlook, SharePoint, Power Platform) technologies will be an advantage. As an example, a user should have their incident shift roster readily accessible from a user's normal MS Outlook calendar without them having to sign into a separate system.
 - g. There is a priority to replace duty and standby rostering as part of an initial implementation and phased implementation approaches that progressively deliver business benefit are welcome.
14. EA's vision is that the LPT will be built on a platform which is adaptable to changing user needs throughout the term of the contract with an emphasis on the ability for the system to be configurable out of the box to reflect EA's business rules and data definitions, and easily integrated with other systems by being able to use and provide access via APIs and well defined bulk data import and export mechanisms. Underpinning all this, there should be a common data store (or at least a common information services layer) for incident related data that multiple consuming services could use and be independent of any one point solution in the incident management ecosystem.

Potential areas for discussion with prospective tenderers

15. In addition to the responses to the market engagement questionnaire in Annex 5, EA may have follow-on discussions with prospective tenderers on the following areas prior to launching any formal procurement exercise:
- a. **implementation approach:** a discussion may be required to explore how alternative implementation approaches can ensure a frictionless implementation for current LPT users, ensuring disruption is minimised for the existing user base. The successful supplier will need to assist the EA project team to handle significant business change adoption challenges that are typical of a highly federated organisation where local areas have considerable autonomy and local variations exist. Specific attention may need to be given to how prospective tenderers would envisage supporting a phased roll out and training and handle a situation where some or all the existing systems may co-exist within an area or in different areas.
 - b. **technical solution:** in order to gain assurance that any new or innovative solution meets the LPT requirements, an understanding of solutions may be required. It may also be beneficial to discuss prospective tenderers solutions for evolving the LPT and furthering integration with other incident management, scheduling and equipment asset management systems, and prospective tenderers solutions for access on tablets and mobile phones (SMS, email, apps) (e.g. not necessarily for all functionality, but for simple high volume transactions and those that are likely to be undertaken by mobile workers who may be disconnected from a network from time to time).
 - c. **future proofing:** the intention of LPT is to provide a scalable solution that could be used as a basis for other services requiring a rostering and equipment sharing across Defra Group. Of interest are any provided value-add features that could be relevant to the incident management logistics space and which enable improved interoperability between systems. It will be beneficial to understand reusability across Defra Group. Incident management is a capability that extends beyond its roots in flood incident response, and it covers a range of short term incidents such as pollution from a fire or longer term incidents affecting business operations, such as Defra's response to Covid.
 - d. **GDPR implications:** EA may require discussion on any issues related to GDPR compliance and other concerns if the service needs to retain employee information. This is related to knowing what capabilities staff have for their assigned roles, holding personal contact and

address details to support out of hours access, as well as location and time tracking for health, safety and well-being.

- e. **payment mechanism and value for money:** the user base and usage profile for LPT functions is very heterogenous and EA are keen to avoid a licensing model that results in disproportionately high expenses for a large group (1000s) of users whose day to day use is typically that of being rostered for a duty shift and who will very occasionally be rostered for an incident where there would be more time critical and frequent changes to shifts to reflect a dynamic incident situation requiring 24/7 support. EA expect there to be full transparency of any other licensing or infrastructure costs that the successful supplier's solution relies on, even if these are not rolled into their own charges. EA need to be able to understand the potential full and whole life costs over a 7 year period. EA will require transparency regarding what is included in any annual service charge. EA expect this to include keeping the software version and any underlying infrastructure up to date and in support on no later than an N-1 version with at least 2 years before end of life.

Annex 1: LPT Objectives linked to Critical Success Factors

CSF1: Affordability & Value for Money
<ol style="list-style-type: none"> 1. The solution must optimise public value with an ongoing cost to maintain the system in line with the projected benefits and risks 2. Due to potentially having 6500 users with the vast majority very 'light' users, EA is looking for a licensing model that does not penalise this.
CSF2: Business needs/Strategic fit
<ol style="list-style-type: none"> 1. A new single rostering system that handles both duty and incident rostering from the same pool of people and is adopted and used by all areas of the EA and some other EA group staff as part of its incident management service. 2. Both ERT and MAT system replacements/enhancements: <ol style="list-style-type: none"> a. Are configurable rather than requiring heavy customisation 'out of the box' b. Promotes conformity to consistent ways of working and adaptable to future business change c. Have enhanced self-service (including provision for mobile and out of hours service), usability and visibility of workflow and approval processes, to avoid centralised admin handling this d. Consider associated health, safety and wellbeing requirements for rest and mutual aid staff travel and accommodation requirements e. Are intuitive to use for infrequent users who may not have had recent training f. Enable further integration into other systems and existing tools - strategic asset management system APIs, as well as MS Teams and 'Outlook' integration (Ref CSF 5) 3. All ERT and MAT system data are maintained in a secure, accurate state and duplication of data entry is avoided. 4. Improved Management Information
CSF3: Achievability
<ol style="list-style-type: none"> 1. The right project skills, resources and capacity must be in place to ensure successful delivery, including a dedicated product manager and champions or business change managers from across the EA to support successful delivery of these changes 2. The business must have capacity and ability to transition/change from the current systems and ways of working to the new system and ways of working in such a way as to ensure continuity and improvement to the service 3. Delivery should not impact the ability of the EA to respond to incidents
CSF4: Supplier Capacity and Capability
<ol style="list-style-type: none"> 1. Suppliers can deliver a solution before end of March 2023. 2. Supplier/s and contracts must conform with business sustainability requirements and targets to support the EA to achieve Net Zero by 2030
CSF5: Enterprise architecture / Data Strategy compliance
<ol style="list-style-type: none"> 1. The replacement systems must be able to be integrated into related systems including MS Outlook Calendar, MS Azure Active Directory Identity and Access Management systems, Incident Report & Tracking, Transport and Logistics & Asset Management Systems and Health and Safety systems. 2. There are also other parallel projects that should work collaboratively with this project, including Fleet Share / Provisioning and initiatives to improve the sharing of area held assets outside of incidents.

This is motivated by more efficient use of the EA's equipment and a corresponding reduction in avoidable hire costs. In terms of data and functionality there is overlap with mutual aid for equipment which is an incident related service, and it is recommended that these are considered together.

Annex 2: LPT capabilities

A high level overview of the capabilities and associated information model for LPT are outlined in Figures 2 & 3.

Figure 2. Rostering

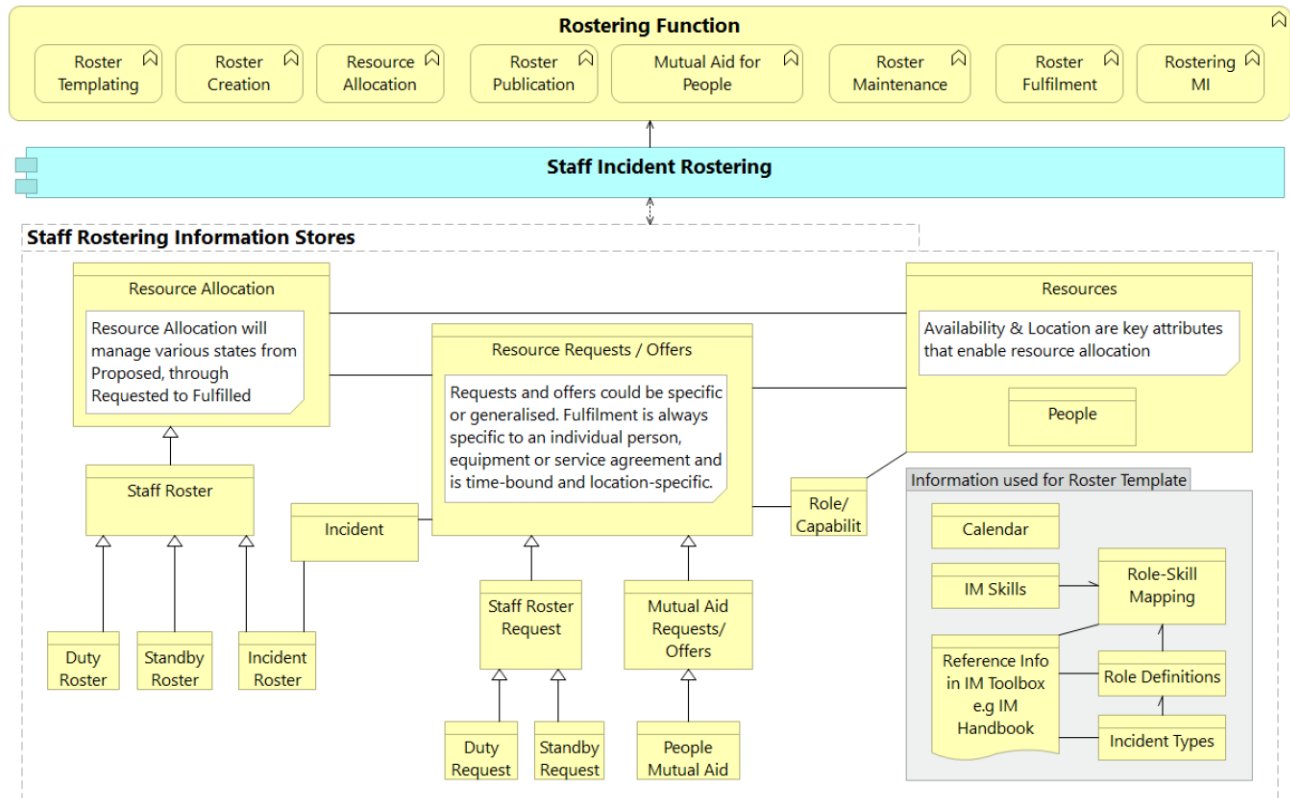
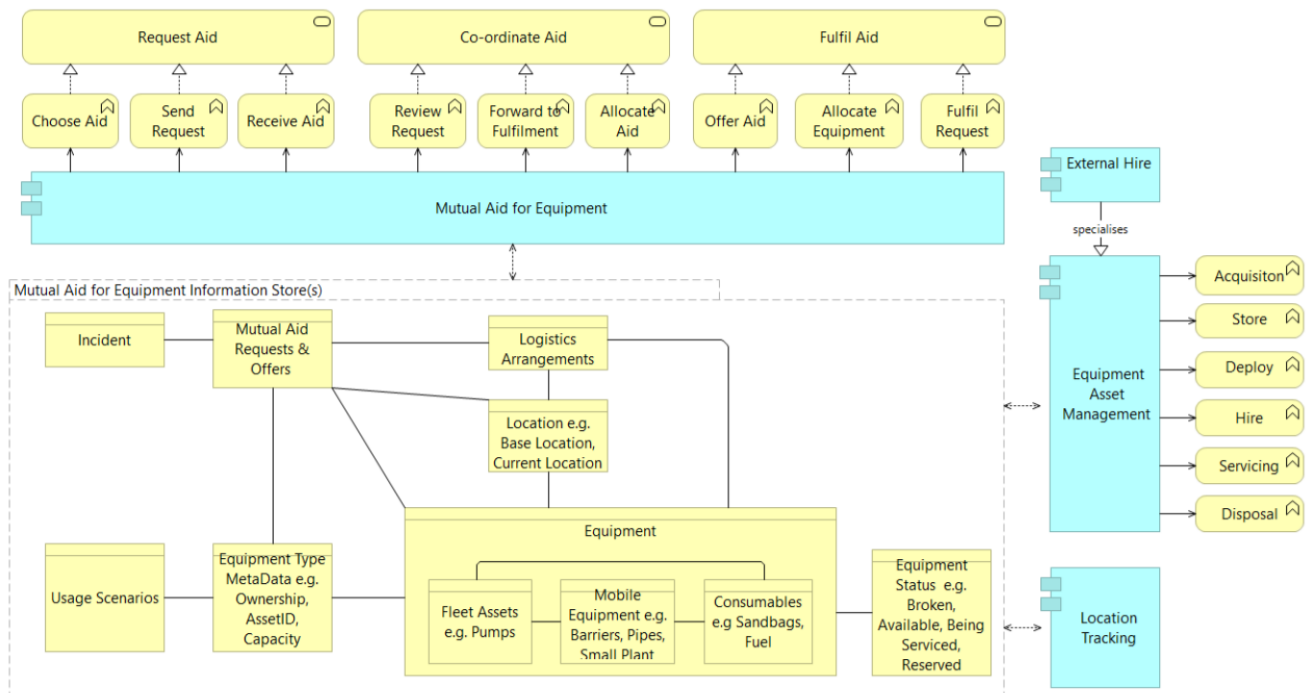


Figure 3. Mutual Aid



ArchiMate 3.0 Notation Used

Annex 3: Key Functional Requirements

Rostering

The EA needs the ability to maintain and readily access all information required to effectively support the Incident Management rostering process in a consistent way across all geographic areas.

- a. Create duty (24/7) rosters in advance and incident rosters before and during incident response.
- b. Create both duty and standby Incident rosters for both National/Local areas with the required structures (roles and shifts).
- c. Create rosters based on previous ones, templates or from scratch.
- d. To roster the right staff considering many different factors around staff availability and skill profile. This may also involve allowing staff to swap standby duties with other staff (from other areas) via mobile app or a self-serve profile.

Mutual Aid for Staff

Requirement for the system to manage resourcing of staff efficiently and effectively from across areas to support the Incident Management process. It should allow gaps relating to specific roles within a roster to be identified quickly and easily and to allow staff to be pulled in flexibly from other areas.

- e. Support National staff to have oversight of all mutual aid requests across all areas and flexibly control sharing of requests to other areas depending on the level of support required by other areas.
- f. System to efficiently identify staff to fulfil requests for Mutual Aid and add them to the area's roster from either a local or National request.
- g. System to arrange and record preparations for staff Mutual Aid including sharing assignment information with the assigned staff member, booking hotels, confirming travel arrangements for those travelling out of an area – (including recording of proposed journey – start/end, and notifications sent to follow up if arrival not recorded).

Mutual Aid for Assets

Requirements for the system to support the viewing and maintaining of all area and national assets that could be shared between any area including the ability to maintain/update asset information requests (new) based on availability, area incident response.

- h. System to allow areas to raise (or National raise on behalf of areas) and agree asset loan requests from other area.
- i. System to support quick and efficient management of delivery and return of assets

General

System to provide ability to configure conditional workflow and status changes to support business processes, e.g., forwarding mutual aid request to National during incidents.

- j. System to provide ability to configure the automatic messages and notifications sent out through the Rostering and Mutual Aid process in terms of the structure, text, and the recipients, e.g. - Area Depot & National duty staff informed when an asset is assigned and deployed to an Area - Line managers informed when their staff member have been assigned to a duty/incident shift.
- k. System to provide the ability to grant access permissions on an individual or role basis and restrict access to certain functionality or data, with the flexibility to open up access quickly and easily if an individual is assigned to work in a different role or area as part of rostering.
- l. System to provide the ability to be integrated with other corporate desktop application such as Teams, SharePoint and Office.

Internal Standards

- m. System to provide the ability to support EDI (Equality/Diversity and Inclusivity) parameters within rostering.

- n. System to provide the ability to support Health & Safety triggers such that if working conditions are exceeded the appropriate HSW trigger is initiated.

Reporting for Rostering & Mutual Aid (Staff and Assets)

- o. System to provide improved and comprehensive operational and business intelligence reports covering all staff, rostering and mutual aid data.

Annex 4: Key Non-Functional Requirements

More complete set of non-functional requirements will be provided at a later stage, those listed below are to help set the context at this early stage.

User Role Numbers

This is indicative to help suppliers propose a suitable licence regime that delivers good value for money. The system will be expected to support Role Based Access controls, underpinned by associated AD Groups.

- **5 x System Administrators.** Regular use from Business Systems Support (EA & EA DDTS) Complete Admin and Configuration Control able to update underlying system reference data and manage group permissions, renaming of groups users, creation of groups of users and sub-groups. There needs to be flexibility in managing these groups of users; and changes need to be able to be made in-house rather than by the supplier.
- **100 x Super Users.** Regular Users throughout the year Edit permissions of people within areas, create roster templates, make out of area changes, Full reporting access and ability to run ad hoc reports
- **1000 x Admin Users. Sporadic usage peaking during incidents. Year round duty roster management** Ability to approve operational changes, authorise mutual aid, assign staff to rosters, typically within an area or for incident they are assigned to. Wide reporting access, access to personal contact details.
- **5000 x General Users. Ad hoc need to use the system, so probably no more than 10% signed on at any one time. Minimal usage of the system for short transactional interaction so concurrency is relatively low <20%.** Will typically manage own availability for rosters, manage own requests for changes to shifts, make offers of help, enter and amend their own data, view rosters, see status of mutual aid requests.

Support & Resilience

This system needs to be available with 24/7 support as it is used to support major incident management.

Suppliers should set out their expected support model including any immediate post implementation support and training as well as the BAU support covered as part of their standard support arrangements.

Security

Single Sign-on linked to EA federated Active Directory (AD) not a separate sign-on with Role Based Access linked to AD Groups.

The system will contain or as a minimum provide linkage to confidential personal information relating to contact details, location and so information should be encrypted at rest.

More generally applications and associated platform services are expected to follow government security guidelines e.g

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1016424/GovS_007-Security.pdf

Configurability vs Customisation

It is important that any system can be easily configured by suitably trained support staff, a solution that can only be maintained via code changes and updates to the system by the supplier is not desirable.

Accessibility

The system needs to be designed to be accessible in line with government guidelines, the target audience is internal and not public facing.

Access Channels

The primary access device for this will be EA Laptop or PCs running Windows 10. Some aspect of the system, especially those related to field workers and out of hours notifications will require access via EA approved mobile devices and applications and/or standard SMS text messaging.

Annex 5: Market engagement questionnaire

No.	Question	Response type
1.	Organisation details	Free text for: <ul style="list-style-type: none"> • Organisation • Contact details
2.	Are you happy to be contacted by EA for any follow on questions?	Yes/No
3.	What software and services do you offer which meets any or all of the proposed LPT capabilities? If your solution relies on underlying software from another vendor, please describe this.	Free text
4.	Do you provide Software-as-a-Service (SaaS)?	Free text
5.	Who are your major customers for the solution?	Free text
6.	What route(s) to market (e.g. CCS framework, "OJEU" as was) should EA be considering?	Free text