ICS

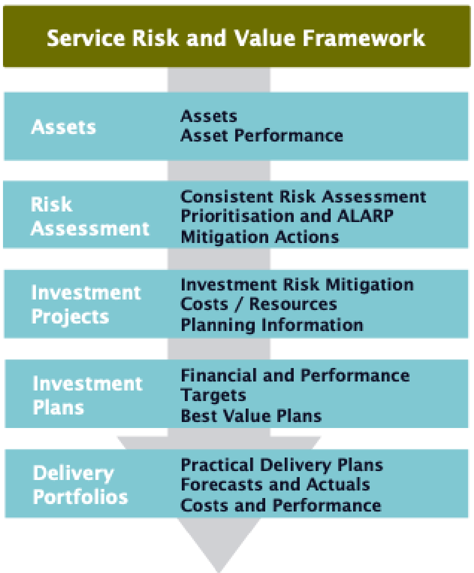
Asset Risk and Investment Decisions

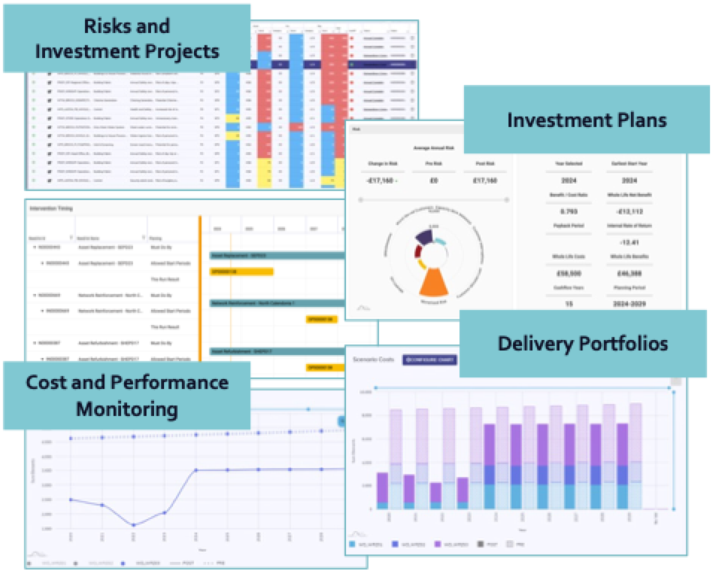
G-Cloud - Service Description

ICS have 25 years experience in evidenced based asset investment and delivery decision making that is based on risk quantification and service value and delivers better investment decisions and improved customer outcomes.

Asset Risk and Investment Decisions develops and manages asset investment plans and delivery portfolios that mitigate asset risks, have stakeholders at their heart and are founded on best value to our customers and society as a whole.

The service covers the entire investment planning and delivery process from risk identification and assessment through to continual update of the investment delivery portfolio.





RISK ASSESSMENT AND PRIORITISATION

The service provides a formal way to capture and monitor risks against the assets and ensures that risks are not overlooked but are monitored at the correct level based on the type, size and potential impact that they pose. Risks can be captured from a number of sources including periodic asset inspections or asset deterioration and impact models. These risks are captured and assessed in a consistent and repeatable manner against the impact they have on service performance. This assessment is used to prioritise them and determine:

- Whether they are ALARP (As Low as Reasonably Practicable) and have sufficient barriers in place to mitigate them;
- Whether they need additional operational mitigation actions to be put in place;
- Whether they are of sufficient value to be considered for further mitigation as part of an investment plan,

A full process safety-based approach (bowtie / ALARP) to risk management is supported. Barriers and risk threshold levels can be set and any risks that exceed these can be identified for further action and the mitigation actions recorded and managed. Based on the priority and action identified, this can be as simple as monitoring through to operational intervention, training, mitigation action, etc.

Any risks that exceed an acceptable 'risk appetite' threshold can then be considered for further intervention as part of an investment plan.

INVESTMENT PROJECT ENTRY AND ASSESSMENT

Investment projects can be considered to mitigate any risks that have been deemed to be of a level requiring investment. The service caters for any type of investment projects to be included within it. These can range from inspections and maintenance through refurbishment to full replacement and the creation of new or increased capacity assets. Investment projects from any source or driver can also be incorporated including service growth, innovation projects, service resilience, performance improvement, service enhancements etc.

Each investment project holds the costs and resources required to deliver it, the outcomes delivered by it and the cost, risk and performance in the future if that particular intervention takes place. In particular, the projects are expressed in terms of the level of risk or performance without investment and the change in level of risk or performance if the investment takes place. This is undertaken against a defined Service Risk and Value that articulates their value to the company, its stakeholders and society as a whole.

There will be one or more investment projects associated with every risk. This enables different scopes or strategies that could be used to mitigate each need to be articulated and considered. The needs and interventions are dynamic and can be updated at any time by the users as new or better information becomes available.

INVESTMENT PLAN SELECTION AND ANALYSIS

The service allows an investment plan to be developed based on a mix of the investment projects that have been entered. An advanced, fast and modern optimisation engine is used to select the optimal portfolio of investment projects to meet the required target level for any or all of the following elements:

- Cost – Capital and/or operating
- Acceptable Risk Levels
- Service Performance
- Available Resources
- Planned Outcomes

The resulting investment plan consists of the optimal mix of investment projects to achieve the objective whilst satisfying the targets that have been set. The optimised plan identifies the investments with start years, spend and benefit delivery profiles, predicted future performance, asset health, service and risk levels.

Multiple investment plans can be generated across a range of target levels and these can be analysed, compared and contrasted to fully understand them and their implications. The plans can then be further refined and narrowed until the acceptable investment plan has been identified.

A variety of objectives can be considered for the investment plan for example, those that deliver certain levels of risk, service and/or asset outputs at minimum cost or maximum net benefit. This includes setting performance or risk targets, asset level risk and performance triggers and budgetary limits either across the whole scope for the company or specific operational areas or sub-sets of asset classes.

DELIVERY PORTFOLIO MANAGEMENT AND UPDATE

Producing an optimised investment plan is the first step towards developing and approving a plan that becomes the delivery portfolio for investment. Multiple what-if optimised portfolios can be created and compared, each showing the detailed time-based budgetary profile and performance and risk outcomes. The service provides delivery managers with the ability to override the optimiser's choices both in their timing and inclusion in the delivery portfolio. The rationale for any overrides to selected investment projects or their timing can be captured, ensuring transparent decision making within an auditable framework.

Once a delivery portfolio has been defined and approved then this can be published and communicated to those responsible for its implementation.

The service supports the cyclical update of the investment delivery portfolio to ensure it continues to meet the required outcomes throughout. Throughout the process of delivery more up to date information becomes available and is required to be included in the ongoing investment decisions. This may include newly arising risks, updates to existing investment projects, actual and forecast costs and updated benefits for projects already in delivery.

This updated information on risks and investment projects can be used as a foundation to develop the next cycle of the investment plan and delivery portfolio by taking it back through the investment plan optimisation and analysis stage. Review and comparison of the optimised plans can then be undertaken and finally an updated delivery portfolio can be published and communicated.

RISK AND INVESTMENT PLAN MONITORING AND REPORTING

The service has different options for our customers to monitor the risks, investment projects, investment plans and delivery portfolios, including performance KPIs, planned (or latest forecast) costs, resources and investment allowances. In-built user configurable reports and charts are provided where the user can choose the risk, cost or performance metrics to display and compare, including the ability to filter for or group by specific asset classes or investment programmes. To allow more flexibility to meet with customer specific requirements then customised reports can be configured as part of the mobilisation stage. In addition direct access to data views can be provided which can be used to develop dashboards using customer preferred BI tools.

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