Police Resource and Demand Modelling

Developing sustainable resourcing models

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Developing sustainable resourcing models

In the light of reducing budgets and with forces under pressure to cut costs and deploy resources more effectively it is important that they are confident that their resourcing models are sustainable and will allow them to deliver effective but efficient services that keep the public safe.

Forces need to examine predicted demands on service and understand how their operations will be impacted by, for example, reduced officer numbers, changing crime types and skills profiles. A demand modelling tool will enable forces to understand demand, threat, risk and harm allowing them to allocate resources to areas of greatest priority.

Sopra Steria's Police Resource and Demand Modelling tool allows forces to simulate potential changes to operational services to understand the impact of any proposed changes.

It is flexible, intuitive and easy to use, allowing users to:

- View overall utilisation within the model for business functions.
- View or change model data and change variables based on a given scenario.
- Make adjustments to overall demand or individual demand.

Our modelling tool is data driven and enables forces to examine the areas that are of key importance to them such as Neighbourhood Crime, Major Crime, Protecting Vulnerable People, Public Protection Unit, Incident Response Team, Incident Management Team and Force Control Room Call Takers. For all of the business areas modellers create working scenarios to understand the impact of change on the business area.

Taking into account that modelling needs to be flexible, our product has been designed to accommodate adjustments to parameters at a granular level. From the top level organisation overview modellers are able drill down into the detail and work with four key components:

- Demand, for example the number of crimes or incidents.
- Activity durations, such as how long to investigate a crime.
- Resource abstractions, including attending meetings.
- Number of Full Time Employees.

To support in depth analysis, all of these elements can be altered or a particular type can be pinpointed. Modellers can also change quantities in percentage terms, as well as being able to refine the model to reflect various date periods from month, week and day, down to an hourly interval.

Once a model has been created, the results are presented back in a straightforward graphical and tabular format. The impact of the changes can be easily identified in the resourcing profile with green, amber and red colours to highlight variances and performance against tolerances.

Force Overview Table	Force Overview Pivot Table					
departmentname	functionname	referencefte	capacity	net	work	variance
Control Room	Call Taking and Despatch	80	0	0	0	0%
Control Room	Telephone Investigation Unit	12	12	8	7	6%
Crime	Major Crime	48	40	17	16	6%
Crime	Volume Crime	45	0	0	0	0%
Operations	Incident Response Team	350	330	122	136	11%

Overview	Demand	Activity	Resources	FTE Assign

North IRT ▼

	activityname	01-Jan	02-Feb	03-Mar	04-Apr	05-May	06-Jun	07-Jul	0 Au
☐	Appointments	800	769	1027	1061	1115	1042	1011	
☐	Incident Priority 0	835	702	872	847	859	1013	968	
☑	Incident Priority 1	1206	1102	1250	1217	1191	1159	1107	1
☑	Incident Priority 2	146	154	165	161	146	182	234	
☑	Secondary Crime Investigations	580	528	604	663	709	640	643	

Showing 1 to 5 of 5 entries

Incident Priority 1
-100% [-10%] 100%

Incident Priority 2
-100% [-20%] 100%

Secondary Crime Investigations
-100% [-15%] 100%

Spread value(s) over the following period:
☑ 01-Jan ☑ 02-Feb ☑ 03-Mar ☑ 04-Apr ☑ 05-May ☑ 06-Jun ☑ 07-Ju
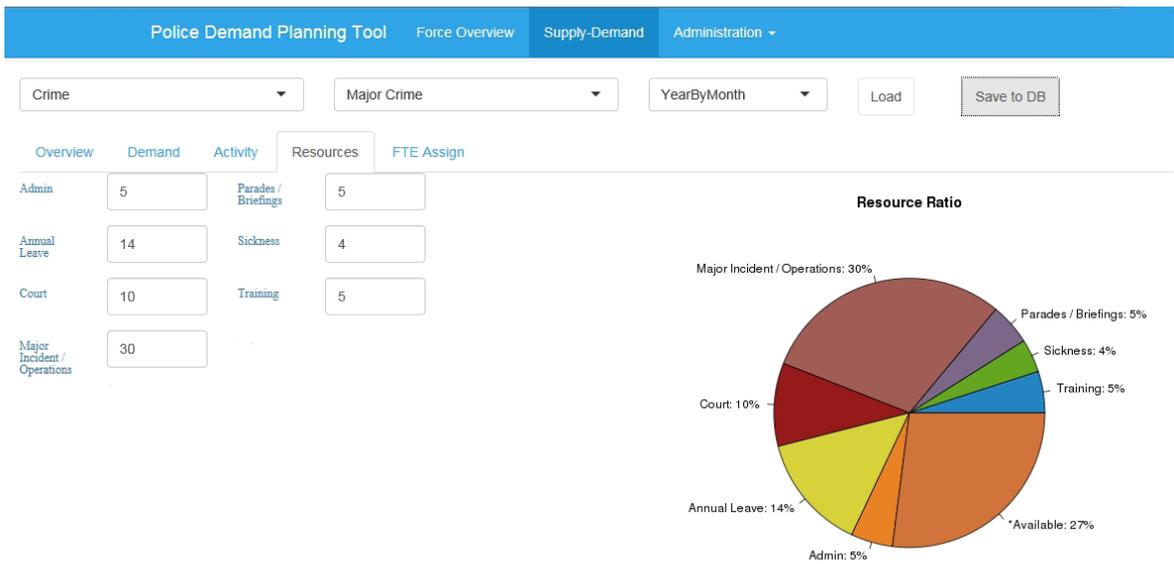
Implementation

The model is data driven and is populated via CSV files with incident and resource data which are typically available from applications within the force such as Command and Control and Duty Management.

The application is browser based and hence no software is required to be installed locally on user's desktops. The solution can be installed on either a single physical or virtual server. It can be LDAP compliant so that authorised users can log on using their existing user name and password. The system has two in-built roles:- Administrator and Modeller, which have different levels of access to data and functionality.

Full technical specifications and pre-requisites are available in the Technical Overview.

To help forces achieve early results, Sopra Steria offers a standard implementation service to help forces get up and running quickly with their resources and demand modelling environment. This service includes training and activities to ensure maximum value is gained from the tool.

Optional services

An optional User Acceptance services is available. Should any additional services be required Sopra Steria will tailor a proposal to meet specific requirements.

Support

Following implementation, Sopra Steria will provide an ongoing support and maintenance service to address any problems you may encounter with the product.

About Sopra Steria

Sopra Steria, European leader in digital transformation, provides one of the most comprehensive portfolios of end to end service offerings in the market: Consulting, Systems Integration, Software Development and Business Process Services. Sopra Steria is trusted by leading private and public organisations to deliver successful transformation programmes that address their most complex and critical business challenges. Combining high quality and performance services, added-value and innovation, Sopra Steria enables its clients to make the best use of information technology.

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