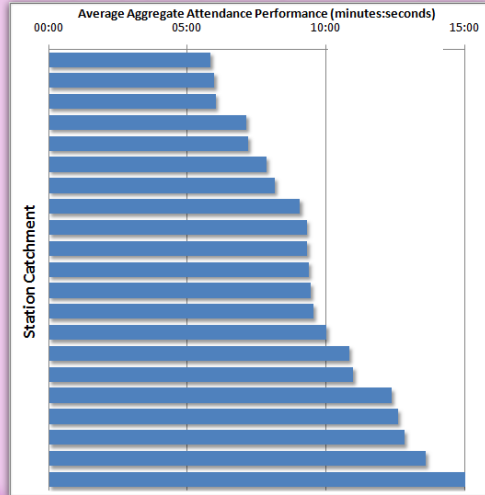


### Appliance Deployment Options for Strathclyde

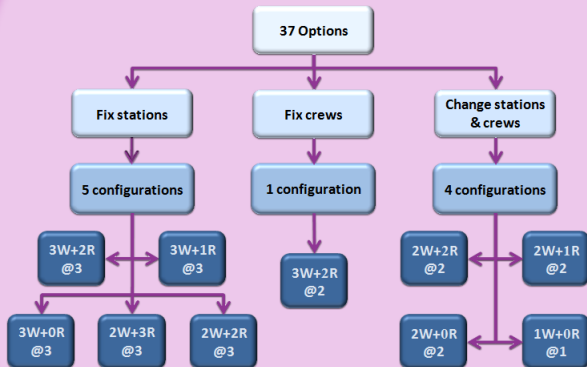
#### The Challenge

- Strathclyde Fire and Rescue (SFR) was developing an asset management plan and identified the need to assess appliance deployments in some local areas to ensure that operational requirements were fully integrated with estate development and financial planning.
- ORH reviewed appliance deployments in specific areas with a view to recommending deployment plans aligned to the local community risks and fit for the future.

#### Attendance Performance



#### 37 Options Appraised



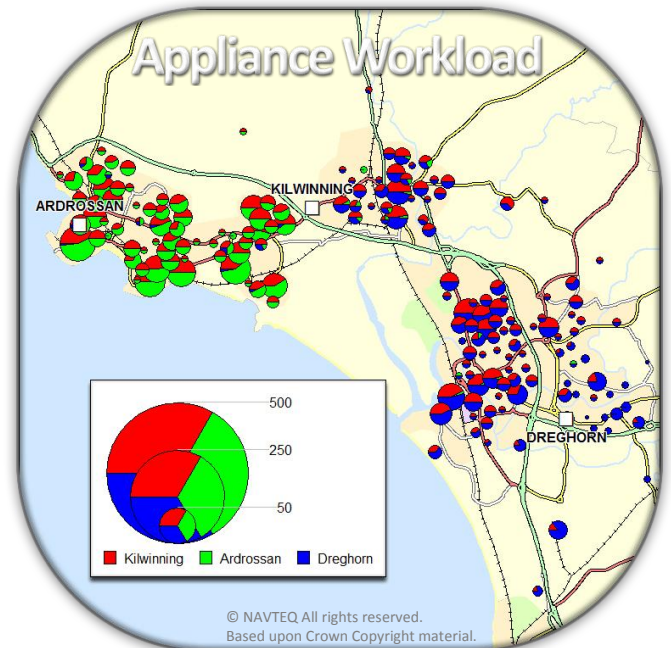
#### Approach

- Strathclyde was split into three distinct and self-contained operational areas owing to the diverse nature of the Service. For example, Argyll & Bute is the most remote rural area with a population density that is less than one-tenth of the whole of Strathclyde.
- ORH’s powerful optimisation tool, OGRE, was used to identify optimum locations that minimised response times, assuming some existing stations were fixed. ORH’s Fire Simulation Model (FSM) was then used to fully assess the operational impacts of each option.



## The Solution

- ORH appraised a long-list of options for re-deploying, downgrading and/or removing appliances based on either existing stations or new locations.
- The operational response impacts were presented for both the affected communities and across the whole Service. First and second appliance performance impacts were reported separately.
- Senior officers then reviewed the operational impacts associated with each option and considered these alongside estate and financial factors so as to reach a set of preferred options.



## Appliance Deployments

	Run Code	Configuration	Aggregate Impact (mins)			
			Stn A	Stn B	Stn C	Overall
Do nothing	0	3W + 2R @ 3	0.0	0.0	0.0	0.0
Fix current stations and re-deploy or downgrade crews	1	3W + 2R @ 3	0.2	-1.2	0.0	-0.2
	2		-0.1	-1.1	0.9	0.1
	3		0.5	-2.3	-0.1	-0.3
	4	0.4	0.0	0.0	0.1	
	5	3W + 1R @ 3	0.2	-1.2	0.9	0.2
	6		0.0	0.0	0.9	0.4
	7	3W + 0R @ 3	0.7	0.1	0.9	0.7
	8	2W + 3R @ 3	1.3	-1.1	0.0	0.2
	9		-0.2	-1.1	1.9	0.6
	10		0.7	1.2	0.2	0.6
	11	2W + 2R @ 3	1.7	0.6	0.0	0.7
	12		1.3	-1.1	0.9	0.6
	13		1.6	1.1	0.2	0.9
	14		0.2	-1.1	1.8	0.7
	15		0.7	1.1	1.6	1.2
	16		0.0	0.4	2.0	1.0
	17		0.6	-2.2	1.7	0.1

## Benefits

- The asset management plan is fully integrated with operational plans ensuring that service planning is fit for the future.
- Operational response planning reflects local community risks and is aligned with the IRMP process.
- Quicker response times are delivered in those communities where changes are implemented (first and second appliance response), and also in some neighbouring communities (second appliance response).
- Options appraised included an assessment of alternative deployments for use during periods of limited appliance availability.

