

# FLS – FAST LEAN SMART

Best-of-breed dynamic scheduling  
and route optimisation solutions

You will enhance service experience, increase efficiency  
and productivity, reduce emissions, cut costs.

SOLUTION BENEFITS PRESENTATION

Chris Welsh – Sales Director

# FLS VISITOUR



Real-time  
scheduling &  
Appointments



Real-time route  
planning and  
optimisation



Mobile  
connection for  
field service

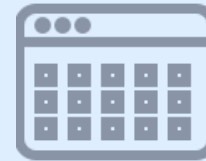


Customer  
Engagement

*"Where is my  
engineer"*



Analytics /  
Capacity  
Simulation



Appointment /  
Agent web portals

# FLS VISITOUR

## WEB SERVICES, WEB OR DESKTOP APP



### Real-time route optimization

Immediate optimization of the entire route plan should changes take place.



### Automation

You choose the planning approach, from manual to fully automatic.



### Data management

Comprehensive settings for staff, property, clients, and order types.



### Data exchange

Permanent connection to your field service mobile equipment



### Data protection

Strict adherence to your industry-specific guidelines (e.g., legal regulations, etc.)



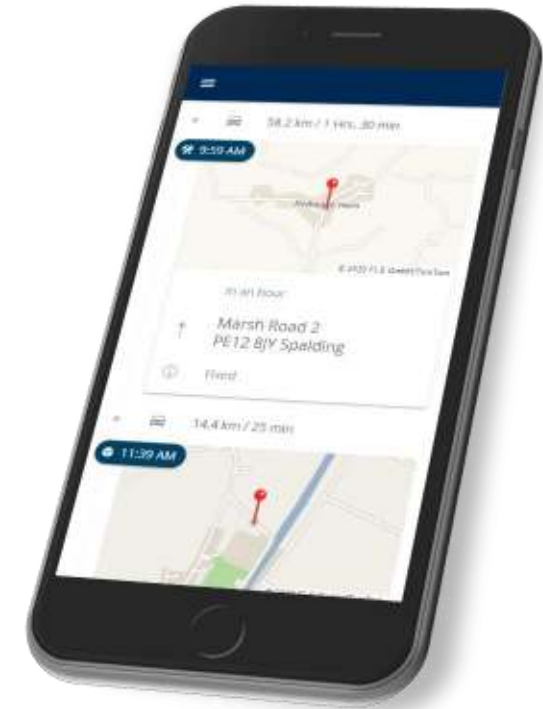
### Multi-channel communication

Communication with clients on web-based features

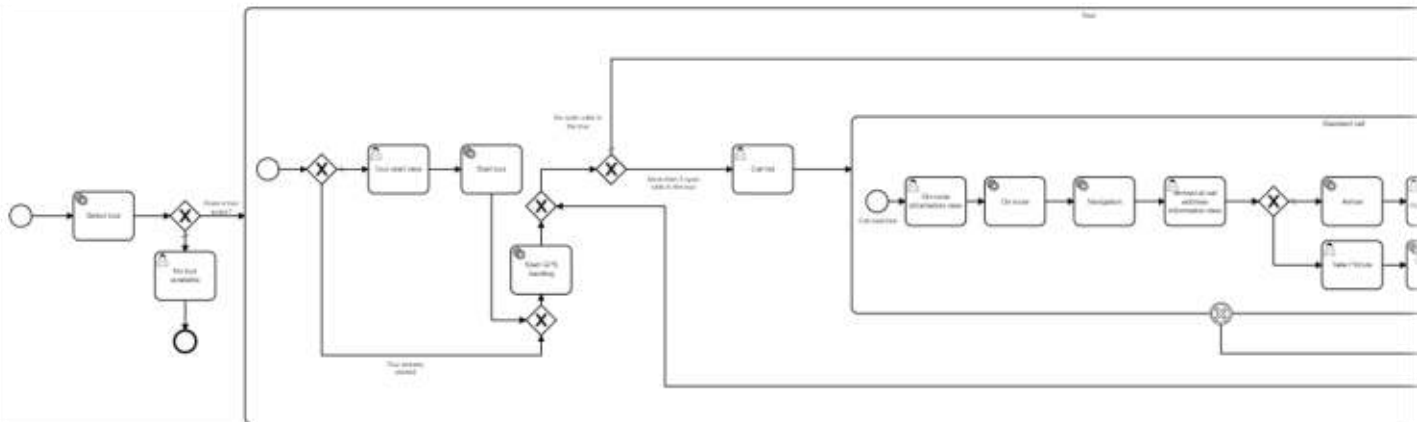


# FLS MOBILE FLOW EDITION















- Available from the Android and IOS app stores
- Clear and intuitive user guidance
- Quick adaptation by FLS to new process requirements
- Development in line with FLS product roadmap
- Architectural advantages
- FLS MOBILE FLOW uses BPMN



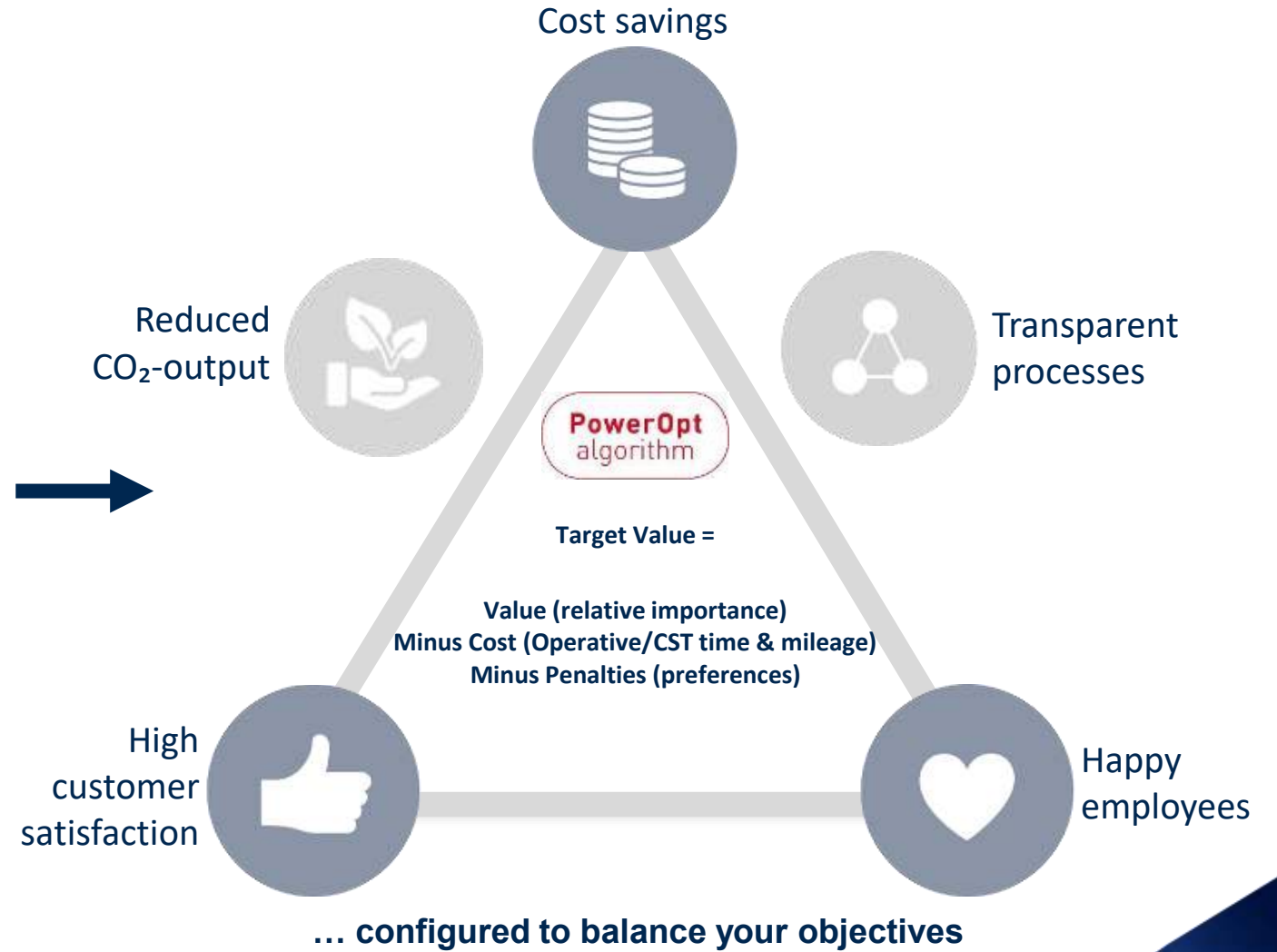
**FLS MOBILE**   
FLOW EDITION



# WHY FLS?

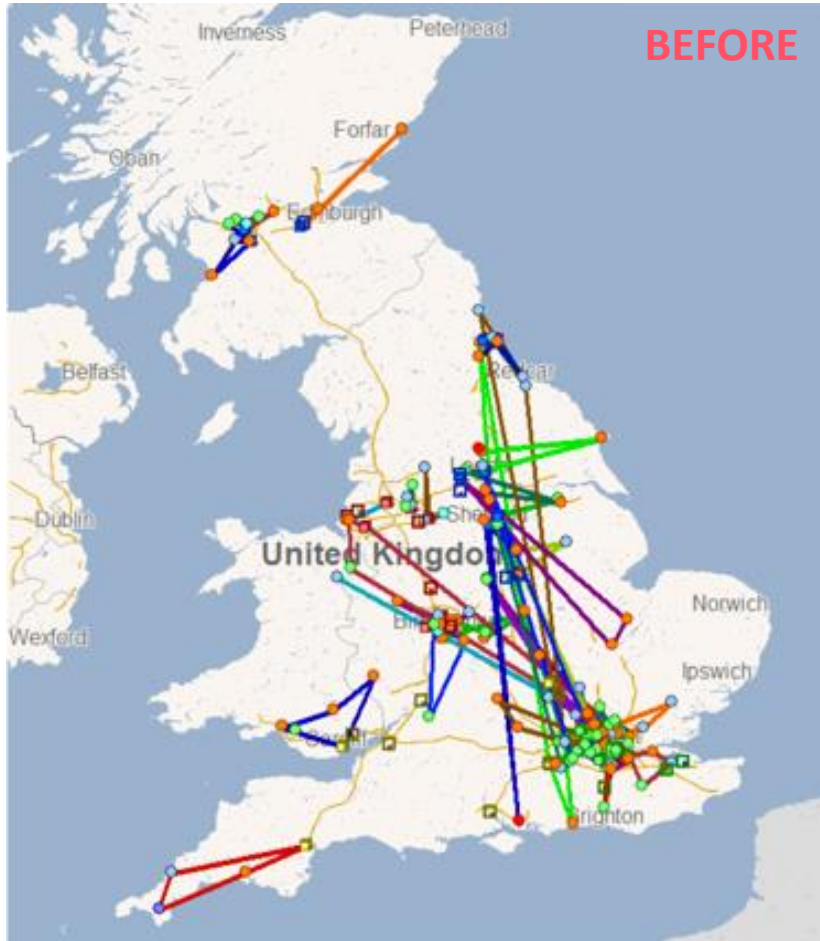
 Location	 Skills	 Expertise
 Job Duration	 Regions	 Tools
 Weather	 SLA Dates	 Opening Hours
 Preferred resource	 Availability	 Teams
 Priority	 Permits	 More >>

... and many more constraints



# WHY FLS?

BECAUSE FLS 'POWEROPT' ALGORITHM IS THE KEY TO PERFORMANCE



**BASLINE (Before FLS)** – using actual completed jobs scheduled on dates and times planned as provided – 7,744 Miles travelled, Cost £24,675 with 3% of calls manually scheduled outside of rules (causing long journeys & overtime)



**TEST 2 (Scheduled by FLS)** - After best routing optimization to best person and AM/PM slot – 3,057 Miles travelled, Cost £12,780, nearly 50% improvement, no overtime or non-productive time or waiting time maintaining engineers in preferred regions, but 'not at all costs.

# OPTIMISED APPOINTMENTS

## WHITESPACE FILLING VS REAL-TIME OPTIMISED APPOINTMENT SCHEDULING

Only Orange has capacity left



Whitespace filling

Whitespace filling gives poor results



A new Job needs to be appointed

Blue & Pink days are full. Orange has capacity, but is too far away. White space scheduling would say the job can't be done.

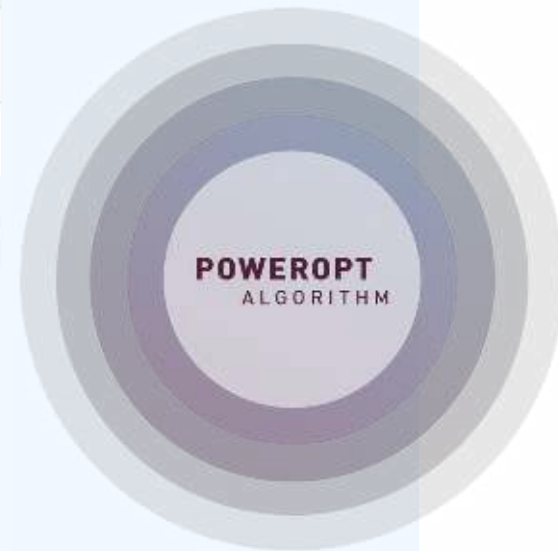
FLS looks at every optimisation option



Which shows the job can be done!



In real-time, FLS found a solution, reduced travel by 20% and created the most cost effective day.



# SPEED PROFILES II

## HISTORICAL TRAFFIC INFORMATION

### Do you have technicians on the road at rush hour traffic...?

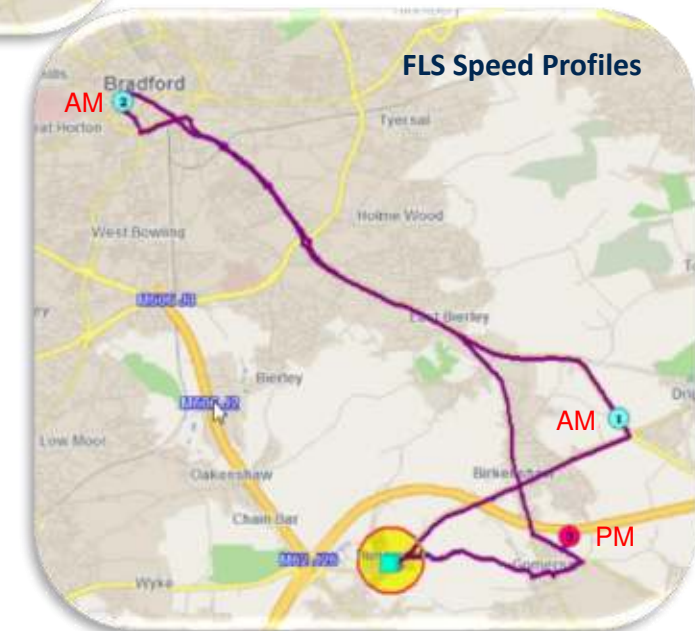
FLS is the only scheduling provider that calculates speeds based on

- current possible speed
- for each road section
- every 30 minutes during the day

Significant increase in scheduling quality especially in urban areas



- Route into Bradford for 9am appointment is 13.8 miles
- Standard road speeds don't allow for rush hour traffic and job 2 now late

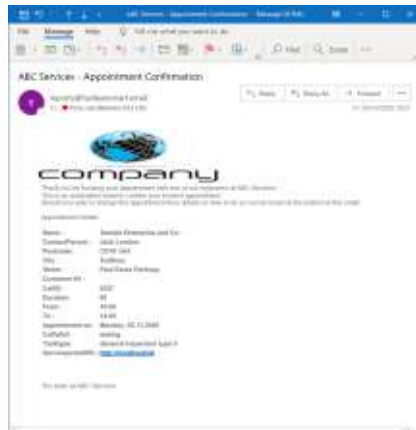
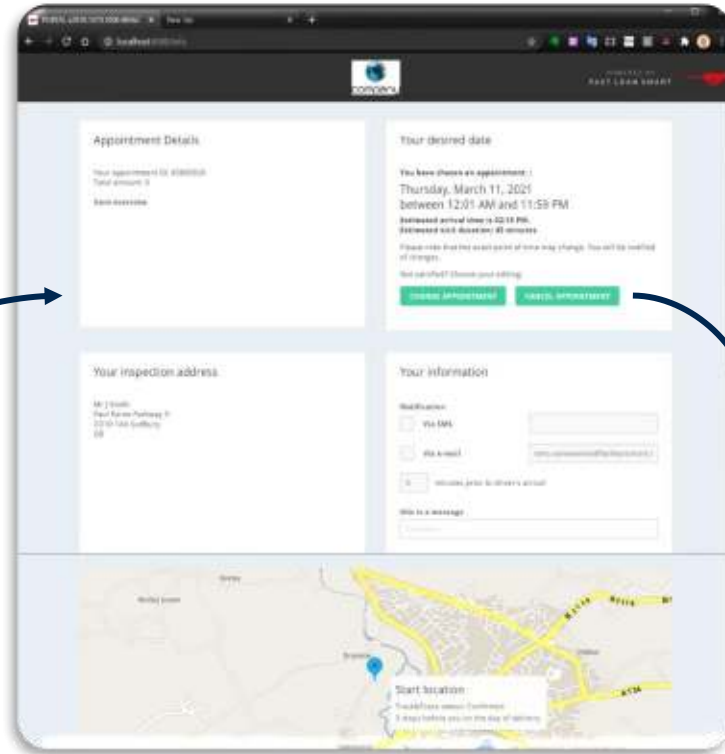


- Routing now 14.4 miles but avoids rush hour traffic
- Overall travel times reduced by 30 min in practice
- More accurate routing and higher level of optimisation



# CUSTOMER ENGAGEMENT

NOTIFY – TRACK & TRACE – RE-BOOK – CANCEL – CHAT



# ADVANCED OPTIONAL MODULES

**SPEED PROFILING** – Time of day planning

**REAL TIME TRAFFIC** – In-day Traffic conditions

**REAL-TIME TRACKING** – In-day live ETA

**RELATIONS** – Multi-Man, Gangs &/Or dependencies

**PORTAL** – Customer Appointment/ tracking portal

**TOOLS** and Multi-day, Small works or Multi-time-zones

**PREDICTIVE DURATIONS** – AI Analysis of work order duration

**AGENT/CUSTOMER PORTAL** – Web appointment booking

**SERVICE PARTNERS** – Manage 3<sup>rd</sup> party contractors

**COCKPIT** – Advanced Report Services – Digital Dashboard/Reports

**WHAT-IF** – Simulation forecasting and Planning tools



## Scheduling Test Examples

**A Scheduling test takes data from a clients existing system and lets FLS VISITOUR schedule the same jobs to be able to compare the results**

***“Typically, a company employing 100 resources would reduce travel time by at least 30% and save £250k+ Per annum and increase capacity by an equal percentage.”*** {based on saving £10 per day, 253 working days. On average in tests in 2019, customer reduced travel and increased efficiency by 36%}

# SCHEDULING TESTS

## FREE OF CHARGE SCHEDULING TEST - HELPS BUILD THE BUSINESS CASE

The best way to understand 'your' benefits is to let us carry out a scheduling test

- We take a data-extract of historical data from your existing systems, usually one or two months of information from a busy region including working hours and field resource details.
- We add on any requirements such as skills, areas of expertise, teams, crews, dependencies, preferences etc.
- Several comparison tests are then performed on the data, examples below;

**Baseline** A baseline showing how efficient you currently are by scheduling in VISITOUR the jobs you give us using the same SLA and Resource

**Test 1** As above but VISITOUR choosing who to send

**Test 2** As above but VISITOUR choosing who to send within the SLA

**Test 3** \*\* OPTIONAL \*\* As above, but add in 'future' work to see how much backlog could be scheduled this period

We replay back to you the results and any observations with a Test by Test comparison of efficiency and financial gain on time, fuel and people or (capacity) with a return on investment analysis.

# SCHEDULING TEST

## EXAMPLE TEST SCENARIO RESULTS SUMMARY – TEST 1 & 2

		Total No of Jobs	Available Hours	Working Hours	Driving Hours	Unused Hours	Engineer Utilisation	Total Mileage	Miles Per Call	Shifts Used	Jobs per Shift	Miles Saving (@30p)
<b>Baseline</b>	Jobs scheduled as per customer data. Shift hours increased where necessary	2,062	4,914	2,506	1,261	1,147	77%	58,912	29	647	3.2	
<b>Test 1</b>	VISITOUR selects order and resource. Visit dates as per the Baseline.	2,062	4,914	2,506	937	1,471	70%	41,290	20	550	3.7	£5,286
					<b>26% Less</b>			<b>30% Less</b>				
<b>Test 2</b>	VISITOUR selects order and resource. Visit dates as per the SLA data.	2,062	4,914	2,506	768	1,640	67%	33,221	16	481	4.3	£7,707
					<b>39% Less</b>			<b>44% Less</b>				

\* Based upon a conservative 30p/mile fuel/vehicle cost

# SCHEDULING TEST

## EXAMPLE TEST 3 – FOCUS ON : CLEAR BACKLOG

		Total No of Jobs	Available Hours	Working Hours	Driving Hours	Unused Hours	Utilitisation	Shifts Used	Total Mileage	Miles Per Call	Jobs per Shift	SLA Adherence	Miles Saving (@30p)
<b>Baseline</b>	Jobs scheduled as per customer data. Shift hours increased where necessary	1,530	3,348	2,088	381	879	73.7%	354	28,157	18.4	4.3	68.0%	
<b>Test 1</b>	VISITOUR selects order and resource. Visit dates as per the Baseline. Appointment times as per baseline	1,530	3,348	2,088	226	1,034	69.1%	350	18,565	12.1	4.4	71.4%	£2,877.45
					<b>41% Less</b>				<b>34% Less</b>			<b>3.4% More</b>	
<b>Test 2</b>	VISITOUR selects order and resource. Visit dates as per the SLA targets	1,530	3,348	2,088	143	1,117	66.6%	308	14,687	9.6	5.0	81.5%	£4,040.85
					<b>62% Less</b>				<b>48% Less</b>			<b>13.5% More</b>	
<b>Test 3</b>	VISITOUR selects order and resource. Visit dates as per SLA targets. Now includes additional jobs e.g. Sub contractors.	<b>2,020</b>	3,348	2,733	206	409	87.8%	340	17,586	8.7	5.9	81.8%	£3,171.15
					<b>46% Less</b>				<b>38% Less</b>			<b>13.8% More</b>	

\* Test 3 Max SLA achievable was 82.1% due to some jobs had already missed their SLA

\* Based upon a conservative 30p/mile fuel/vehicle cost

# SCHEDULING TEST

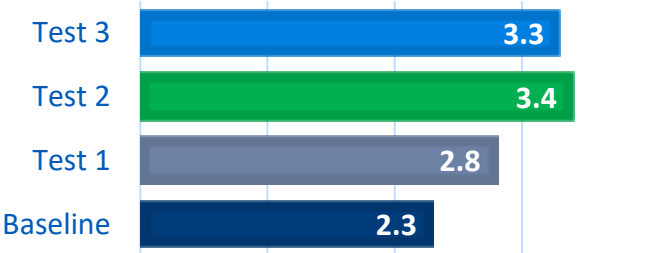
## EXAMPLE TEST 3 – FOCUS ON : OVERTIME & WEEKEND TIME REDUCTION

		Total No of Jobs	Available Hours	Working Hours	Driving Hours	Unused Hours	Utilitisation	Shifts Used	Total Mileage	Miles Per Call	Jobs per Shift	Miles Saving (@30p)
<b>Baseline</b>	Jobs scheduled as per customer data. Shift hours increased where necessary	966	3,571	1,325	1,105	1,141	68.0%	422	55,950	57.9	2.3	
<b>Test 1</b>	VISITOUR selects order and resource. Visit dates as per the Baseline. Appointment times as per baseline	966	3,571	1,325	821	1,425	60.1%	340	39,386	40.8	2.8	£4,969
					<b>26% Less</b>			<b>19% Less</b>	<b>30% Less</b>			
<b>Test 2</b>	VISITOUR selects order and resource. Visit dates as per the SLA targets	966	3,571	1,325	693	1,553	56.5%	286	32,456	33.6	3.4	£7,048
					<b>37% Less</b>			<b>32% Less</b>	<b>42% Less</b>			
<b>Test 3</b>	VISITOUR selects order and resource. Visit dates as per the SLA targets but main objective was to reduce overtime and weekend work where possible	966	3,571	1,325	725	1,521	57.4%	294	34,568	35.8	3.3	£6,415
					<b>34% Less</b>			<b>30% Less</b>	<b>38% Less</b>			

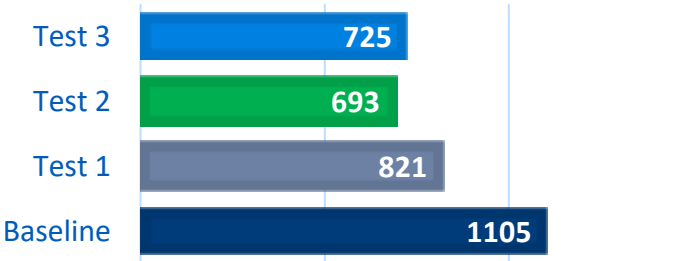
# SCHEDULING TEST

## Test Scenario Results Summary

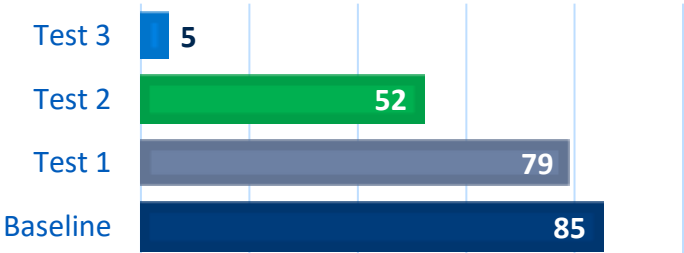
**JOBS / SHIFT**  
(HIGH IS BETTER)



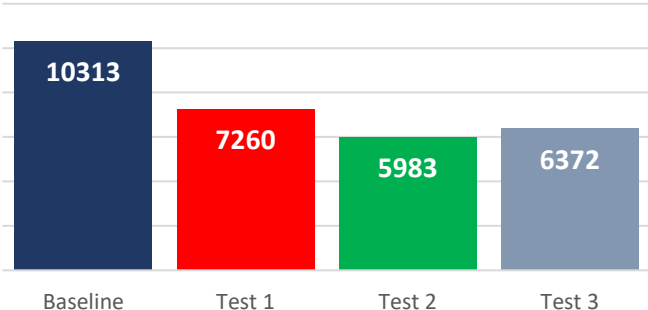
**HOURS SPENT DRIVING**  
(LOW IS BETTER)



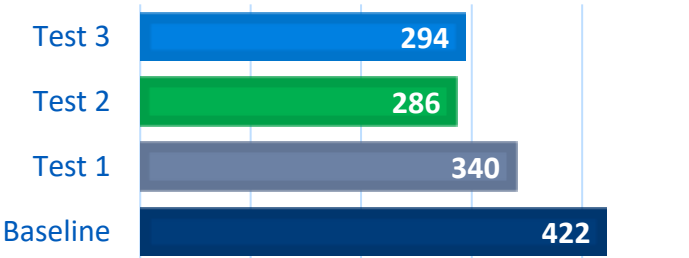
**SHIFTS IN OVERTIME**  
(LOW IS BETTER)



**Carbon Footprint\***



**SHIFTS UTILISED**  
(LOW IS BETTER)

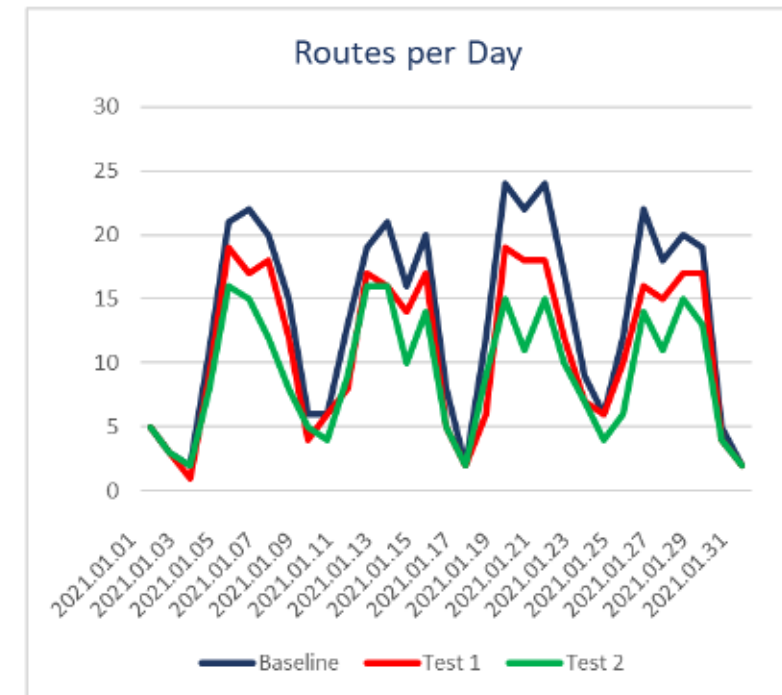
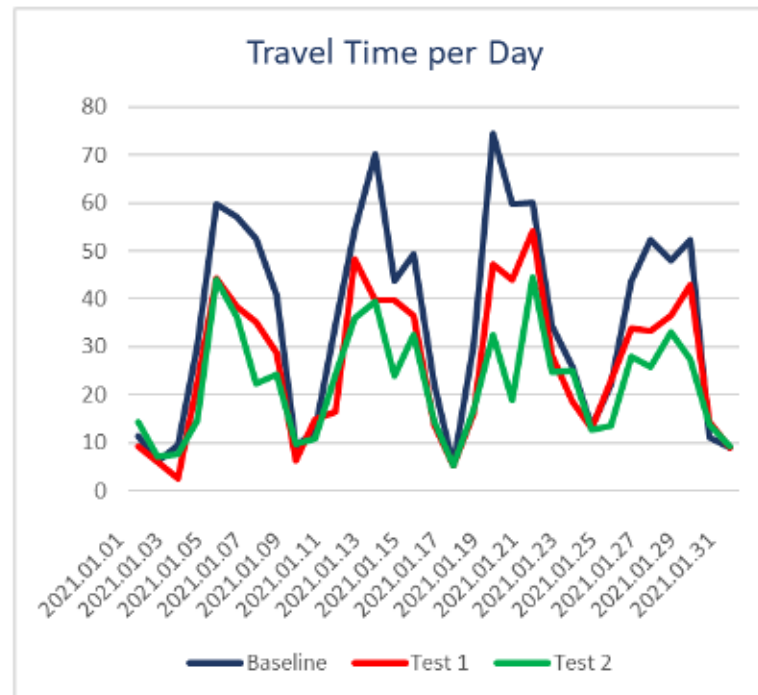
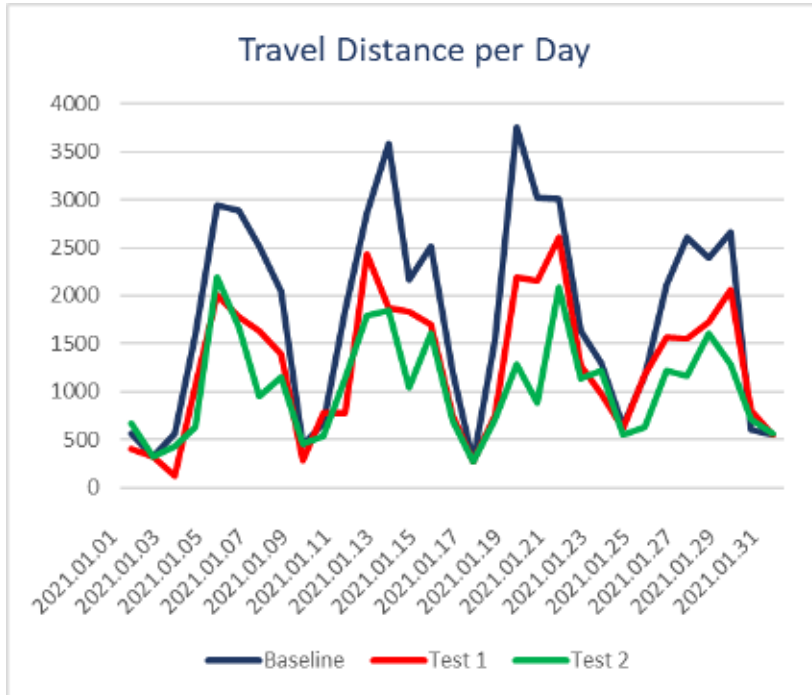


\* Based on 0.114 kg CO2/km (source: DEFRA)



# SCHEDULING TEST

## Test Scenario Results Summary



- The above charts show not only the improvements in the response times and at a lower cost model but also how the work can be more evenly distributed – the flatter the curve the better
- This equates to more operational resilience.
- Allow for the freeing up of capacity for additional work or faster responses.



# SCHEDULING TEST

The below is a summary of 10 companies who's scheduling tests were completed in 2019.

People - Average Efficiency from 20% to 36% resource efficiency

Everage of 1.3 jobs extra per shift and 40% driving time reduction

Benefits Analysis - FLS - 10 X Companies study

In Test Resources	Appointme nts	Reactive	Planned	Date	No Tests	Baseline Utilisation	Reduction in Utilisation (Test 2)	Mileage reduction Test 1 +++	Mileage reduction Test 2 +++	Average Efficiency Improvement	Jobs Per shift BEFORE (Baseline)	Jobs Per shift AFTER (Test 1 Minimum)	Increased Jobs Per Shift (Test 1 Minimum)	Driving Hours Reduction %	SLA Adherence
61	95%	<5%	N	Jan-20	3	76%	22%	36%	60%	48%	4.60	5.70	1.10	55%	99.70%
One Area	Y	>20%	Y	Dec-19	2	75%	19%	57%	71%	64%	5.10	6.60	1.50	69%	87.60%
147	N	<10%	Y	Dec-19	2	82%	7%	27%	30%	29%	4.50	5.00	0.50	29%	89.30%
23	Future	Y	Y	Nov-19	3	87%	4%	13%	15%	14%	14.90	17.10	2.20	18%	95.60%
41	N	Y	N	Sep-19	2	60%	7%	26%	44%	35%	2.80	3.50	0.70	41%	100.00%
One Area	Future	>20%	Y	Jun-19	3	70%	10%	29%	47%	38%	4.10	4.80	0.70	45%	100.00%
25	Y	N	N	Jun-19	2	61%	11%	20%	46%	33%	3.70	4.80	1.10	43%	97.00%
8	Y	Y	Y	Mar-19	2	75%	11%	39%	50%	45%	15.20	18.90	3.70	50%	100.00%
20	Future	Y	Y	Feb-19	3	74%	9%	11%	30%	21%	8.60	9.60	1.00	11%	100.00%
44	N	Y	Y	Jan-19	3	67%	8%	27%	38%	33%	2.00	2.50	0.50	34%	100.00%
<b>Average (All have a % of SLA)</b>						<b>73%</b>	<b>11%</b>	<b>29%</b>	<b>43%</b>	<b>36%</b>	<b>6.55</b>	<b>7.85</b>	<b>1.30</b>	<b>40%</b>	<b>97%</b>

Test 1 = Minimum benefit (not changing current business processes for the company)  
 Test 2 = Achievable benefit (by changing some business processes to improve optimisation potential)  
 Average Efficiency Improvement is the average between Test 1 & Test 2 so is a realistic view of what is achieved for the test only ones  
 Increased Jobs Per shift is based on test 1, the minimum jobs increased - When using Test 2, the average jobs per shift for all 10 companies is 2.7  
 Driving Hours reduction is the percentage of time spent less behind the wheel allowing more jobs and/or more time with customers, happier field force not driving as much  
 As well as reduction in driving hours, this creates a high number of 'unused hours' which again can be used for more jobs, less resources, reducing backlog by pulling work forward, greater ability to manage surge etc  
 Reduction in utilisation is capacity we release regardless of Test type which either translates into being able to do more work or reduction in FTE's



# BENEFITS CASE

## FM INSTALLATION, MAINTENANCE AND SERVICE BUSINESS WITH 116 RESOURCES

EXAMPLE FM Company							
Summary ROI Projection using FLS VISITOUR Real-Time Scheduling and Route Optimisation							
Based on the results of a scheduling test performed on actual customer data found savings projected over five years without changing business structure							
Projected five-year return on investment							
Input Metrix							
Pence per mile (Running Costs)	0.30 Figures from average vehicle costs for a Diesel car in the UK >30,000 miles per annum						
Number of Scheduled Resources in tests	28						
Number of Scheduled Resources in total	325 Total resources to forecast annualised figures from						
Number of dispatchers	11 Number of back-office planners and engineer call handlers - Ratio 30 to 1						
Average miles travelled per resource (Per annum) pre optimisation	18,867 See Detailed ROI						
Cost per field resource (Total cost to employ)	£42,000 Validate if correct						
Projected Savings	Miles P.A.	Year 1 £	Year 2 £	Year 3 £	Year 4 £	Year 5 £	Total 5 Years £
Current Mileage (from data provided)	528288						
Optimised Mileage using VISITOUR (50% between Test 1 & 2)	354561						
Projected Miles saved per annum	173727						
Baseline Saving (just in fuel/running cost!) % and Value	33%	52,118	52,118	52,118	52,118	52,118	260,591
Value of spare capacity still available even after optimisation	10%	117,600	117,600	117,600	117,600	117,600	588,000
Value of potential reduction in planning / scheduling resource		36,300	36,300	36,300	36,300	36,300	181,500
<b>Total Projected Saving 28 Resources</b>		<b>206,018</b>	<b>206,018</b>	<b>206,018</b>	<b>206,018</b>	<b>206,018</b>	<b>1,030,091</b>
<b>Total Projected Saving 325 Resources £</b>		<b>2,060,181</b>	<b>2,060,181</b>	<b>2,060,181</b>	<b>2,060,181</b>	<b>2,060,181</b>	<b>10,300,905</b>

# OTHER BENEFITS

- Cost based appointments - call centre staff can see the relative cost of one appointment vs others & direct customers to most cost efficient to the company within SLA
- Reduction in head count OR released capacity to take on more work OR a balance of the two
- Much happier employees, greater visibility of work, more realistic routes, ability to explain why resource A was given a job vs resource B with value/cost-based decision making
- Reduction in Overtime - Routes may use flex-time, but no routes will automatically be calculated that would place a field resource into overtime or beyond end-of-day flexi-time
- All SLA's will be hit - including in-day emergencies with instant in-day re-optimisation, reduces waiting time, cancelled slots, reduction in backlog as well as faster appointment times, increases jobs per day
- Travel Time - Reduction in Travel Time so resources not spending as much time behind the wheel - More customer facing time vs travelling time
- Much greater visibility for back-office and regional managers with flexibility to impact assess re-planning decisions, deal with in-day changes real-time and in the most efficient way
- Highly configurable, parameter driven rules including traffic jams & road closures, road speeds, out of area penalties and much more all under your control to adjust

# “TRY BEFORE YOU BUY”

## A LIVE TRIAL SYSTEM

- To really put the system to the ultimate test, a Trial does exactly that
- Use of hosted VISITOUR system for one month to schedule up to ten scheduled resources LIVE, option to extend by one more month
- System non-integrated, jobs via excel or keyboard entry
- 3 days preparation and handholding included
- Fixed fee £4900 + expenses
- Any additional resource days utilised only paid for if you proceed to system purchase
- Prove the benefit and suitability of the technology in practice and FLS as a partner with purchase commitment
- Every customer to Trial has subsequently selected FLS

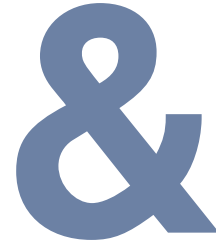
*“We completed a successful trial with VISITOUR which proved the technology would enable tremendous benefits and supported our business case.”*



# OUR PARTNERSHIP ASPIRATION



- Long term, reliable **partnership**
- Joint **strategic focus** on customer satisfaction, employee happiness, and economic sustainability
- **Proven technology** with high scalability and performance
- Strong **industry experience** and long-standing track record of FSM projects
- **Scalable team** of FSM experts, consultants, and developers



# HIGHEST RATED FIELD FORCE SCHEDULING ON THE PLANET

(ACCORDING TO CUSTOMERS)



Survey answered by every live UK customer with 3 measures:

- ◆ Would you recommend FLS scheduling software to a friend with a field force or logistics scheduling requirement
- ◆ Consultants assigned to the project
- ◆ Support service received



“The efficiency gains are such that we’re now in a position to scale up. We’re all about improving the customer experience and we’re grateful to FLS for helping us do that.”



““FLS have proven an outstanding partner since we began together in 2015.”



“The service level within FLS is phenomenal.”