

Make Sustainability a Reality with Electric Vehicle Fleet Optimization from IFS





Reduce your organization's carbon footprint, empower field service engineers, and adopt cutting-edge electric vehicle tracking, compliance, reporting and optimization—enabling your brand to deliver on its ESG initiatives and modernize its service fleet.

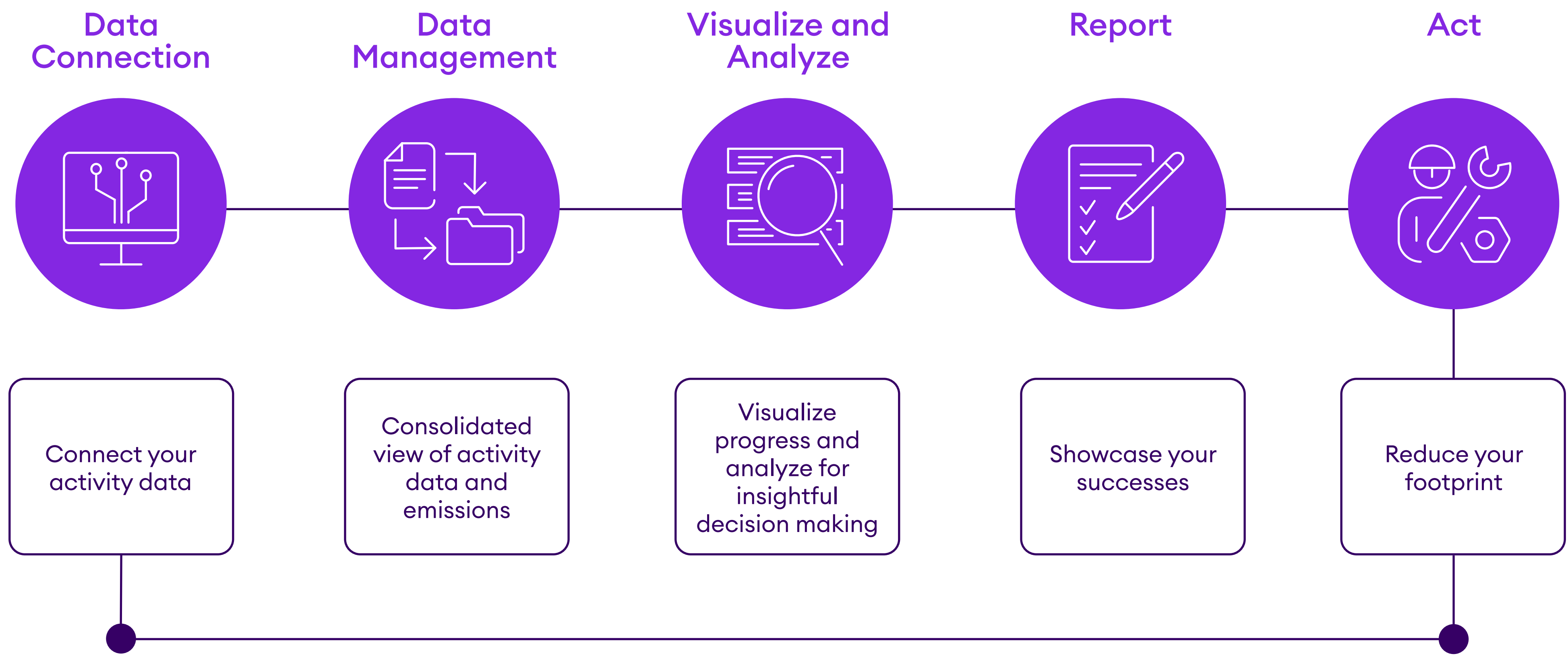
IFS is committed to investing in ESG innovation

IFS takes ESG very seriously and is committed to helping its customers on their journey towards sustainability because we understand the value that it delivers to your business. We have a designated R&D team that is dedicated solely to product development in this area. As part of this initiative, IFS is pioneering innovation in electric vehicle (EV) fleet optimization, helping you to meet corporate sustainability goals, simplify ESG compliance and reporting, and drive your overall operational efficiencies towards net zero carbon emissions.

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We are deploying IFS to move away from the combustion engine and to grow a profitable company.”

Track and Manage Your Organization's CO₂ Emissions



Transportation is the world's largest producer of harmful greenhouse gases

IFS' workforce planning and scheduling optimization reduces field engineers' travel time from 35% to 50%, meaning lower CO2 emissions for your brand.

Enjoy tangible ESG benefits and operational cost-savings from day one. Embedded machine learning within our AI-powered optimization engine continually improves the accuracy of job durations, route planning and scheduling and even self-learns how long each technician takes to perform various activities. This improves your SLA adherence by ensuring that the right technician with the right parts and skills is always sent at the right time.

"Every day, we agree on why we are deploying IFS cloud solutions: to move away from the combustion engine, to enter new markets, and to grow a profitable company that can last a hundred more years."

IT Manager, Manufacturing Organization



More than 2 million company cars will be replaced with electric vehicles by 2030

Reduce your fleet’s fuel and labor costs while preparing for EVs

Discover how IFS scheduling optimization enables you to save between \$3 and \$5 Million on fuel costs and between \$10 and \$23 Million on labor annually, all while significantly reducing your carbon dioxide emissions. Plus, you can increase work order volume by up to 73% and with embedded remote assistance technology you can often eliminate service visits altogether.

Simulator helps you prepare for the future with confidence

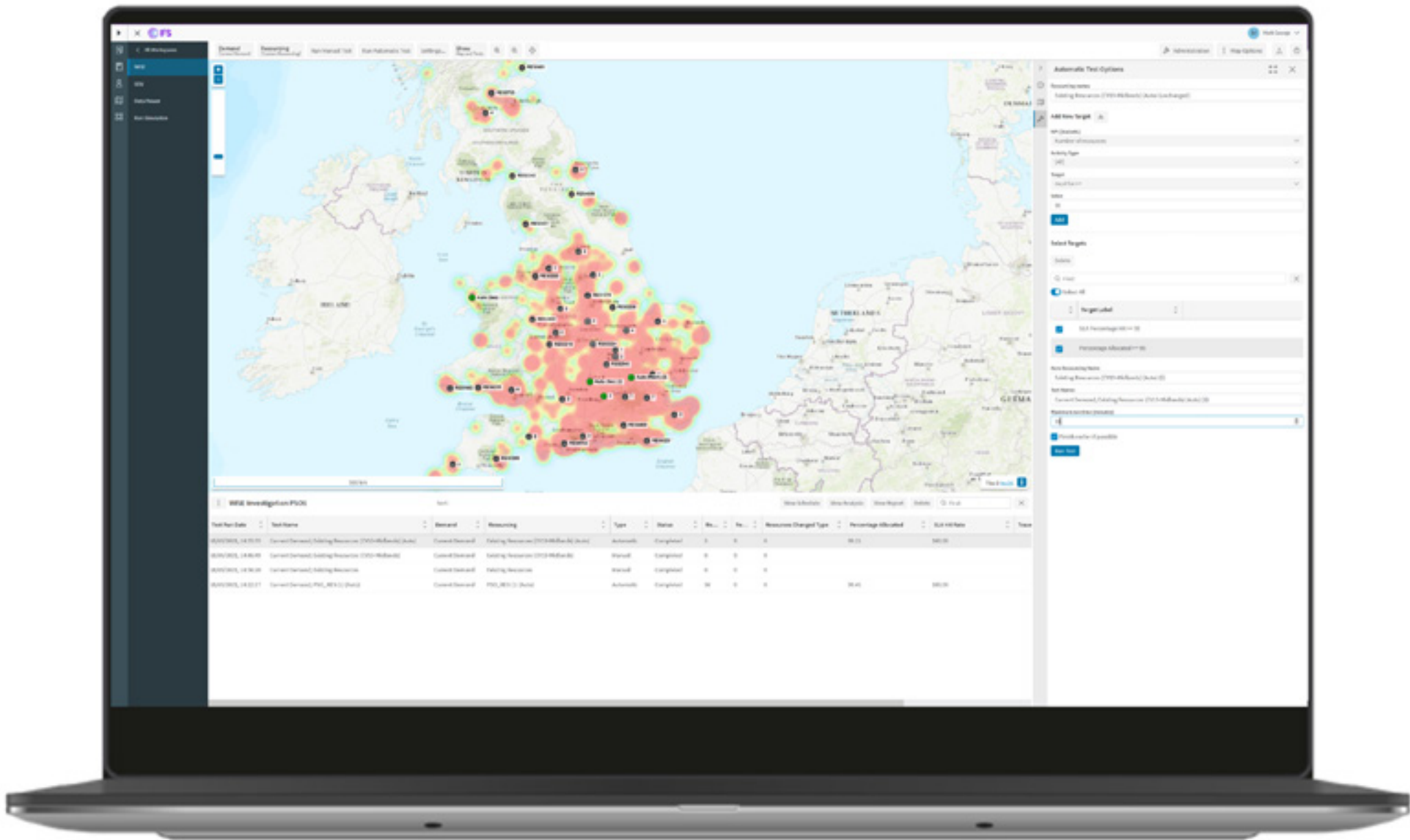
IFS’s workforce planning and scheduling optimization solution includes a unique predictive planning tool called ‘What-If’ Scenario Explorer (WISE) that allows you to test how your business could cope with a wide range of scenarios. So, you can plan ahead knowing, how switching fleets to include EVs will affect your team, or if your resourcing model will change. It lets you easily visualize your simulated impact on resources, KPIs, and work demand.

Key benefits include:

- Simulate different scenarios to plan for changes in demand and resourcing
- Set KPI targets and find out how many new resources you will need, what skills they should have, and where to recruit them
- Decrease subcontractor spend
- Increase resource utilization
- Plan for new EV range variables
- Plan for and predict environmental variables such as CO₂ emissions

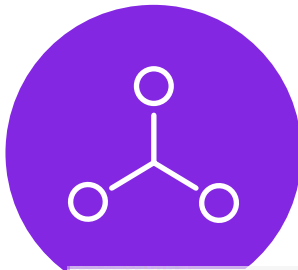
Incorporate EVs into your service fleet

When it comes time for your organization to shift its service fleet over to include EVs, IFS makes it easy to setup, track and monitor vehicle attribute information in our existing data model so that you can seamlessly optimize EVs route scheduling.



Existing data model

Vehicle attribute information



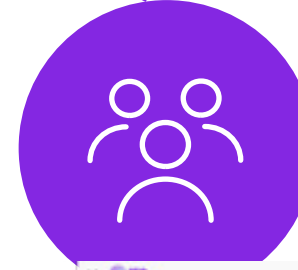
Setup Vehicle Models

ID	Description	Make	Model	Vehicle Class	Fuel Type	Vehicle Ownership Type	Maximum Range (km)	CO2 Emission Rate	W20 Emission Rate	Weight (kg)	Height (meters)	Length (meters)	Width (meters)	Axle Count	Wheel Count
WM301	Mercedes Citan CDI	Mercedes	Citan CDI	Panel	Diesel	Company Owned	500	115	50	1345	2.050	4.201	2.130	2	4
WM302	Mercedes Vito 114 CDI	Mercedes	Vito	Truck	Diesel	Company Lease	500	132	85	2287	2.052	5.141	2.240	2	4
WM303	Mercedes eSprinter 1.7	Mercedes	eSprinter	Truck	Electric	Company Lease	0	0	0	3300	2.687	5.901	2.545	2	4
WM304	Mercedes eVito	Mercedes	eVito	Truck	Electric	Company Owned	0	0	0	1395	2.70	5.14	2.240	2	4



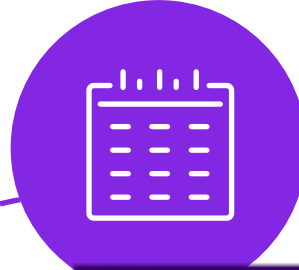
Setup Vehicles

Vehicle Model	Maximum Range (km)	Efficiency Rate	CO2 Emission Rate	W20 Emission Rate	Manufacturer
Mercedes Citan CDI	500	4	115	50	Mercedes-Benz
Mercedes Vito 114 CDI	500	4	132	85	Mercedes-Benz
Mercedes eSprinter 1.7	0	0	0	0	Mercedes-Benz
Mercedes eVito	0	0	0	0	Mercedes-Benz

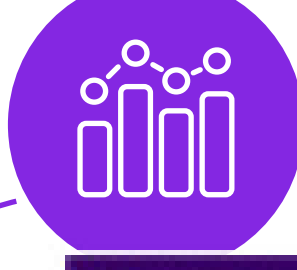
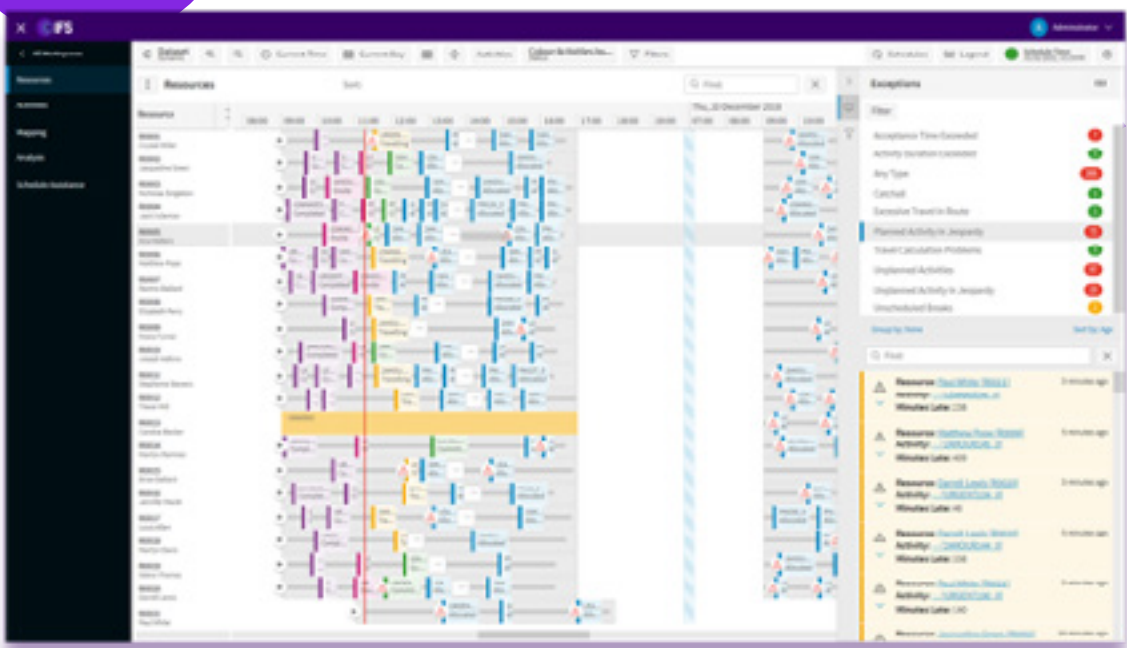


Associate Vehicles to Resources

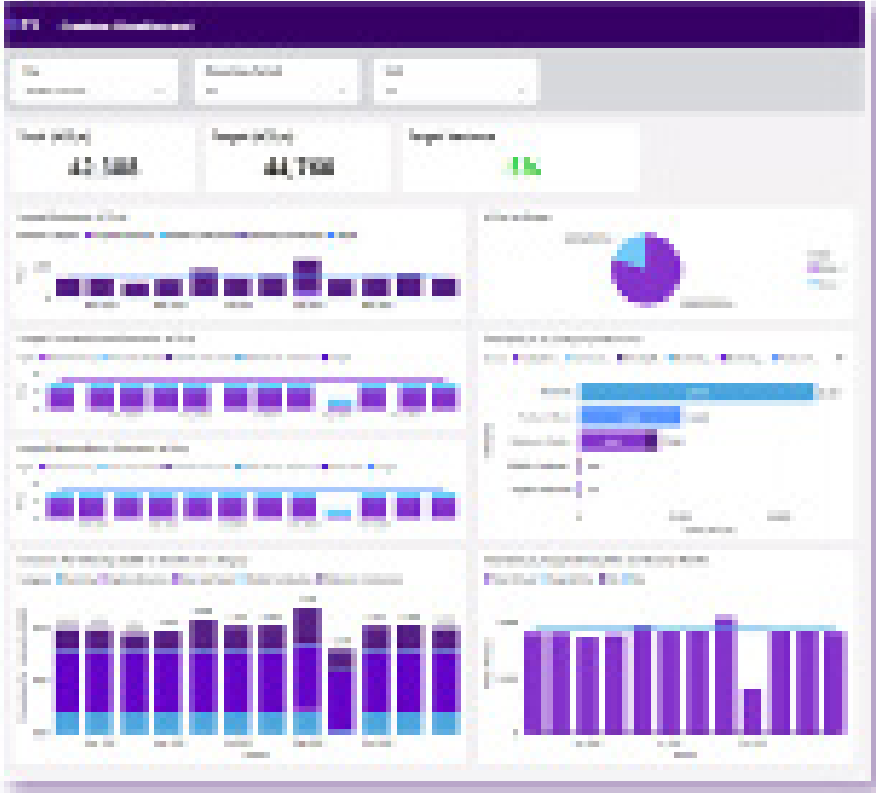
Resource Type	Resource	Start Location	End Location	Travel Cost Model	Vehicle
Engineer	Engineer 1	Region A, Region 1	Region A, Region 1	Standard Cost Model	Mercedes Citan CDI
Engineer	Engineer 2	Region A, Region 1	Region A, Region 1	Standard Cost Model	Mercedes Citan CDI
Engineer	Engineer 3	Region A, Region 1	Region A, Region 1	Standard Cost Model	Mercedes Citan CDI
Engineer	Engineer 4	Region A, Region 1	Region A, Region 1	Standard Cost Model	Mercedes Citan CDI
Engineer	Engineer 5	Region A, Region 1	Region A, Region 1	Standard Cost Model	Mercedes Citan CDI
Engineer	Engineer 6	Region A, Region 1	Region A, Region 1	Standard Cost Model	Mercedes Citan CDI
Engineer	Engineer 7	Region A, Region 1	Region A, Region 1	Standard Cost Model	Mercedes Citan CDI
Engineer	Engineer 8	Region A, Region 1	Region A, Region 1	Standard Cost Model	Mercedes Citan CDI
Engineer	Engineer 9	Region A, Region 1	Region A, Region 1	Standard Cost Model	Mercedes Citan CDI
Engineer	Engineer 10	Region A, Region 1	Region A, Region 1	Standard Cost Model	Mercedes Citan CDI



Schedule & carry out work



Report on Emissions





Modernize Your Service Fleet with Cutting-edge EV Route Optimization

IFS' scheduling optimization engine plans EV charging needs by time and location, empowering you to modernize your service fleet. By adding charge and capacity planning into our solution, it allows the optimization of EVs taking into consideration location of charge points, type, capacity, speed of charge and range.

Benefits include:

- Only use EVs in urban areas or for certain journeys that are shorter distances
- Only cooperate with service contractors with a full EV service fleet
- Support for building partnerships with charging station vendors

EV recharging built into the optimized schedule

Our implicit travel cost models will automatically consider EV charging requirements into daily technician schedules and our explicit model will support any IoT-connected electric vehicles for real-time battery usage tracking. Over time, you'll be empowered to lower the frequency and time required to recharge electric vehicles, meaning better schedules for technicians and dramatically improved efficiency. By the end of 2023, IFS will introduce functionality required to handle an explicit model of electric vehicle recharging. Our scheduling optimization engine will be able to plan when and how vehicles need to be recharged.

EV recharging capabilities will be optimized with route and schedule planning, including:

- The maximum range of the vehicle used by each resource
- The location of charge points and the expected time required for recharging
- Characteristics of charging stations
- Whenever a visit to a charging point takes place and a vehicle is recharged
- Whenever it has been possible to recharge a vehicle while visiting a regular activity
- The updated range of each vehicle as the day progresses.
- Electricity usage rate, known charge at start of day by vehicle model
- Your company's policy of which charging stations to use
- Lots of charging stations get planning permission and becomes public but not built for
- Real-time telemetry feed covering bays in use and waiting time

Optimize EVs seamlessly with people and parts

No other scheduling engine can optimize people and parts in a single pass, but IFS offers this functionality out-of-the-box because we know that the biggest cause of low first-time fix is part availability successful service. IFS synchronizes the part event with the person event, can dynamically generating a part pickup event as a point in the route of the engineer, to ensure the SLA is met. We even seamlessly optimize parts collection and at depots and warehouses with future EV charging stop requirements together in each day's plan. This way EV charging time is coordinated with van stock replenishments. In addition, the scheduling of depot visits will be optimized so that parts required for travel are replenished in the most efficient way.

"By partnering with IFS, we're able to dramatically improve SLA adherence, reduce fuel consumption, optimize worker efficiency, and increase first-time fix rate by assigning the right person with the right skills and parts to each job."

Ged Cranny, Senior Consultant, Konica Minolta

Robust reporting and real-time IoT updates for simpler ESG compliance

Vehicle attribute information in the archive database supports generating vehicle usage reports. Reports can be generated detailing information such as:

- How much CO2 emissions have been made or how much work carried out using electric vehicles vs petrol
- Vehicle usage by model or individual vehicle
- Vehicle usage by ownership type (owned, leased, BYOV) accrual of emissions reporting into the parent company
- Future updates will include real-time data on EV battery capacity and electric usage via IoT

The planning workspace allows your users to create vehicle data and link vehicles to resources and/or shifts.

Revolutionize the employee experience with better UX/UI and work-life balance

While modernizing your service fleet, you can also keep your field engineers happy and engaged—and attract the next generation of scarce skilled workers—by simplifying complex work patterns and working time regulations, minimizing travel time, and seamlessly optimizing parts collection and future EV charging stop requirements together in each day's plan.

This way your company can ensure every engineer has a fair day with manageable working hours while preparing your business for the future. Plus, our technology and mobile apps are people-first designed, meaning that the UX/UI is easy-to-understand, increasing user adoption across both back office and field workers.

Ready to save some green while going greener?

Let us help you calculate your potential cost and CO2 emissions savings with a comprehensive and complimentary business value assurance report.

To learn more about IFS' commitment to service excellence and ESG innovation, visit <https://www.ifs.com/industries/telecommunications>.



About IFS

IFS develops and delivers cloud enterprise software for companies around the world who manufacture and distribute goods, build and maintain assets, and manage service-focused operations. Within our single platform, our industry specific products are innately connected to a single data model and use embedded digital innovation so that our customers can be their best when it really matters to their customers – at the Moment of Service™.

The industry expertise of our people and of our growing ecosystem, together with a commitment to deliver value at every single step, has made IFS a recognized leader and the most recommended supplier in our sector. Our global team of over 5,500 employees every day live our values of agility, trustworthiness and collaboration in how we support thousands of customers.

Learn more about how our enterprise software solutions can help your business today at ifs.com.

#MomentOfService