

Questionnaire on In-Vehicle Monitoring Systems Implementation

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What are in-vehicle monitoring systems?

In-vehicle monitoring systems (IVMS), are computer systems that record data about a vehicle's operation that are then used by insurers, parents, employers, or others to influence driver behaviors. In-vehicle monitoring systems (IVMS) are increasingly being implemented by companies in the oil and gas extraction industry to understand the use of their vehicles and the behaviors of their drivers. IVMS may be described using other terms, such as telematics, on-board monitoring systems, driving improvement monitoring systems, in-vehicle data recorders, fleet management apps, or driver risk management systems.

Questionnaire scope

This questionnaire was designed for oil and gas industry professionals who use IVMS in their daily work. The questions pertain exclusively to US fleets and direct-hire employees unless the question specifically asks about contractors.

Business relationships in oil and gas can be complex. Here are definitions for some of the terms we use:

- **Establishment:** a single physical location where one predominant business activity occurs.
- **Firm:** an establishment or a combination of establishments defined by its unique Employer Identification Number (EIN) issued by the Internal Revenue Service (IRS). Firms operate in one industry or in multiple industries.
- **Enterprise:** a firm or a combination of firms that engages in economic activities which are classified into multiple industries. An enterprise may report under one or a number of EINs.

Please respond to the best of your abilities.

Module 1: IVMS Planning

Company Characteristics

1.1. What type of firm do you work for?

- a. ☐ Oil and gas operator (NAICS 211)
- b. ☐ Oil and gas drilling company (NAICS 213111)
- c. ☐ Oil and gas servicing company (NAICS 213112)
- d. ☐ Other type of company: _____
- e. ☐ Unsure
- f. ☐ Prefer not to say

1.2. What is your role in fleet safety management?

- a. ☐ Fleet safety manager or equivalent
- b. ☐ HSE professional
- c. ☐ Other (please specify): _____
- d. ☐ Unsure
- e. ☐ Prefer not to say

1.3. Considering all of its U.S. employees, how big is the firm you work for?

- a. ☐ Less than 20 employees
- b. ☐ 20-49 employees
- c. ☐ 50-99 employees
- d. ☐ 100-499 employees
- e. ☐ 500 employees or greater
- f. ☐ Unsure
- g. ☐ Prefer not to say

1.4. What is the scope of your responsibilities for monitoring and managing fleet safety?

- a. A specific location, such as an establishment, with a single address
- b. A group of locations, such as a region or a given business activity
- c. All locations for your company
- d. Unsure
- e. ☐ Prefer not to say

1.5. In which basin(s) do you primarily focus? Select all that apply.

- | | |
|---|--|
| a. ☐ Anadarko | j. ☐ TX-LA-MS Salt |
| b. ☐ Appalachian | k. ☐ Uinta-Piceance |
| c. ☐ Ardmore | l. ☐ Western Gulf |
| d. ☐ Cherokee Platform | m. ☐ Williston |
| e. ☐ Denver | n. ☐ Other (please specify):
_____ |
| f. ☐ Fort Worth | o. ☐ Unsure |
| g. ☐ Permian | p. ☐ Prefer not to say |
| h. ☐ Powder River | |
| i. ☐ San Joaquin | |

1.6. Approximately how many employees in your scope are currently approved to drive a fleet vehicle?

1.7. Approximately how many employees in your scope currently have regular access to a fleet vehicle (i.e., every workday or almost every workday)? _____

1.8. Approximately what percentage of drivers in your scope have a commercial driver's license?

_____ %

1.9. Approximately how many fleet vehicles do you have in your scope?

- a. Light (up to 10,000 lbs.) _____
- b. Medium (10,001 to 26,000 lbs.) _____
- c. Heavy (over 26,000 lbs.) _____

1.10. Approximately what percent of the vehicles in your scope are equipped with IVMS?

- a. Light (up to 10,000 lbs.) _____ %

- b. Medium (10,001 to 26,000 lbs.) _____ %
- c. Heavy (over 26,000 lbs.) _____ %

Company Goals

- 1.11. What are the top three reasons for implementing IVMS in your fleet?
- a. ☐ To reduce our rates of collisions (and injuries / fatalities associated with collisions)
 - b. ☐ To reduce workers compensation injury costs associated with collisions
 - c. ☐ To reduce vehicle damage and/or auto liability costs associated with collisions
 - d. ☐ To reduce costs and liability exposure associated with operating our fleet
 - e. ☐ To improve fuel efficiency / "green" / "eco" / "climate-friendly" driving
 - f. ☐ To reduce fleet wear and tear
 - g. ☐ To improve driving skills and behaviors in our workforce
 - h. ☐ To monitor drivers' compliance with regulatory/legal requirements
 - i. ☐ To monitor drivers' compliance with our own motor vehicle safety policies
 - j. ☐ To fine-tune our journey management program
 - k. ☐ Other (please specify)

Scope

- 1.12. Approximately how long have you had the **current** In Vehicle Monitoring System (IVMS) operating in at least one of your fleet vehicles?
- a. ☐ Years and ☐ months (enter 0 years if less than 1 year)
 - b. ☐ Unsure
 - c. ☐ Prefer not to say
- 1.13. Approximately how long have you had **any** In Vehicle Monitoring System (IVMS) operating in at least one of your fleet vehicles?
- a. ☐ Years and ☐ months (enter 0 years if less than 1 year)
 - b. ☐ Unsure
 - c. ☐ Prefer not to say
- 1.14. Please write down the term most used in your company to describe IVMS. Examples include In-vehicle monitoring system, telematics, on-board monitoring systems, driving improvement monitoring systems, in-vehicle data recorders, fleet management apps, or driver risk management systems.
- _____
- 1.15. What type of IVMS system do you use?
- a. ☐ Hardware-based / permanently mounted / wired system
 - b. ☐ Plug-in system

- c. ☐ Mobile phone app / Mobile software solution
- d. ☐ OEM (original equipment manufacturer) Telematics come already built into the vehicle's electronics system (for example, OnStar)
- e. ☐ Other (please specify) _____
- f. ☐ Not sure

1.16. Which of the following data do you collect with your IVMS? Please check all that apply.

- | | |
|--|---|
| a. ☐ Driver-facing camera video | h. ☐ Harsh braking / deceleration |
| b. ☐ Forward-facing camera video | i. ☐ Harsh turns / harsh cornering |
| c. ☐ GPS location / Geofencing | j. ☐ Seat belt use |
| d. ☐ Speed | k. ☐ Mobile phone use |
| e. ☐ Speeding events over a fixed maximum speed limit (e.g. 85 mph) | l. ☐ Eyes off road for any reason |
| f. ☐ Speeding events in relation to the posted speed limit | m. ☐ Fatigued driving |
| g. ☐ Rapid acceleration | n. ☐ Lane departure |
| | o. ☐ Other (please specify): _____ |

1.17. How do you keep track of which drivers are alone?

- a. The IVMS has that capability
- b. We combine IVMS data with other data sources to identify lone drivers
- c. We do not currently track whether our drivers are working alone
- d. Unsure
- e. Prefer not to say

1.18. Please indicate if the following metrics are recorded and stored for individual fleet vehicles, regardless of whether the data are collected by IVMS.

- ☐ Miles driven
- ☐ Driving time / time operated
- ☐ Idling time
- ☐ Fuel consumption
- ☐ vehicle on / off / # trips per day

1.19. What additional features are available through your IVMS? Select all that apply.

- a. ☐ Data downloads
- b. ☐ Detailed data or video from before and after an incident
- c. ☐ Reports at the vehicle level
- d. ☐ Reports at the driver level
- e. ☐ Reports by operating unit
- f. ☐ Reports at the basin level
- g. ☐ Satellite communication
- h. ☐ Two-way communication without voice
- i. ☐ Two-way communication with voice
- j. ☐ Panic button

- k. ☐ Data recorded for at least one week even when out of cell range
- l. ☐ Real-time tracking
- m. ☐ The ability to upload company geo-data (e.g., private roads)
- n. ☐ An application programming interface (API) to share data to/from the IVMS
- o. ☐ Lone worker emergency alerts

1.20. What type of feedback does your IVMS provide immediately inside the vehicle to the driver?
Select all that apply.

- a. ☐ None
- b. ☐ Visual lights (e.g., red/yellow/green)
- c. ☐ Audible beep or tone
- d. ☐ Audible voice warning/notification
- e. ☐ Haptic feedback (e.g. vibrating seat or steering wheel)
- f. ☐ Other (please specify): _____

1.21. Are employees allowed to use vehicles for personal use?

- a. ☐ Yes, full personal use
- b. ☐ Yes, limited personal use
- c. ☐ No (this may include a rare exception for use in an emergency)
- d. ☐ Unsure
- e. ☐ Prefer not to say

1.22. If employees are allowed to use vehicles for personal use, are employees' spouses/domestic partners allowed to drive the vehicles?

- a. ☐ Yes
- b. ☐ No (this may include a rare exception for use in an emergency)
- c. ☐ Unsure
- d. ☐ Prefer not to say

1.23. If you hire contractors, do you require they have IVMS on their vehicles?

- a. ☐ Yes, on all heavy vehicles (over 26,000 lbs.)
- b. ☐ Yes, on all medium vehicles (10,001 to 26,000 lbs.)
- c. ☐ Yes, on all light vehicles (up to 10,000 lbs.)
- d. ☐ Yes, on particular vehicles or in particular circumstances
- e. ☐ No IVMS requirements
- f. ☐ Unsure
- g. ☐ Prefer not to say
- h. ☐ My organization does not hire contractors

1.24. If you hire contractors and require IVMS, do you require they share IVMS data with you? Select all that apply.

- a. ☐ Contractors are required to share unrefined data (aka raw data)
- b. ☐ Contractors are required to share aggregated metrics generated by an IVMS
- c. ☐ Contractors are required to share IVMS data only after a motor vehicle incident, such as a collision or serious injury
- d. ☐ Contractors are required to share with us how they are using IVMS data
- e. ☐ No
- f. ☐ Unsure
- g. ☐ Prefer not to say
- h. ☐ My organization does not hire contractors and/or does not require IVMS

1.25. If you hire contractors, do you allow contractors to budget for IVMS separately from other contract-related expenses?

- a. ☐ Yes
- b. ☐ No
- c. ☐ In some circumstances
- d. ☐ Unsure
- e. ☐ Prefer not to say
- f. ☐ My organization does not hire contractors

Communication with Workforce

1.26. Before implementing your current IVMS did you explain any of the following potential benefits to drivers? Select all that apply.

- a. ☐ A reduction in work-related crashes due to fatigue and at-risk driving behaviors
- b. ☐ The ability to quickly find the driver in an emergency
- c. ☐ Evidence of safe and fuel-efficient driving
- d. ☐ Protection for drivers from false third-party claims
- e. ☐ Improved safety for drivers' family and friends, as improved defensive and fuel-efficient driving skills will extend to personal driving

1.27. Before implementing your current IVMS did you do any of the following? Check all that apply.

- a. ☐ Connect the new IVMS program to the company's overall motor vehicle safety program and goals
- b. ☐ Clarify the roles and responsibilities of employees
- c. ☐ Clarify the roles and responsibilities of managers
- d. ☐ Manage any fears or resistance to installing the monitors and using the new system, including concerns about data privacy
- e. ☐ Emphasize IVMS as a learning tool to help improve driving behaviors rather than a way to catch drivers' mistakes and punish them
- f. ☐ Show drivers what safety professionals and managers were going to see from the IVMS and how the data would be used, like with a software demonstration

Module 2: IVMS Procurement

IVMS Vendor

2.1. Which vendor do you use for your IVMS?

- a. _____
- b. ☐ Unsure
- c. ☐ Prefer not to say

2.2. Which factors did you consider when selecting your IVMS? Select all that apply.

- | | |
|--|--|
| a. ☐ Durability of hardware | h. ☐ Communication capabilities and requirements of the IVMS |
| b. ☐ Specifications and capabilities of the system | i. ☐ Satellite coverage |
| c. ☐ Scalability | j. ☐ Ability to operate without network connectivity |
| d. ☐ Resources required for installation | k. ☐ Electronic data privacy |
| e. ☐ Required maintenance | l. ☐ The vendor's understanding of your needs and how their IVMS solution met those needs |
| f. ☐ Availability of technical and customer support | m. ☐ Unsure |
| g. ☐ Availability of system updates | n. ☐ Prefer not to say |

IVMS Pilot Test

2.3. Did you conduct a pilot test with your current IVMS?

- a. ☐ Yes
- b. ☐ No
- c. ☐ Unsure
- d. ☐ Prefer not to say

2.4. If you conducted a pilot test with your current IVMS, what strategies did you use?

- a. ☐ Tested the product to ensure data were accurate.
- b. ☐ Reviewed data frequently during the pilot
- c. ☐ Tested monitors with default tolerances.
- d. ☐ Tested higher and lower tolerances to test full functionality.
- e. ☐ Worked with a group of drivers willing to provide constructive feedback.
- f. ☐ Scheduled regular briefings with test drivers.
- g. ☐ Asked what drivers thought about the alerts in general.
- h. ☐ Asked drivers whether they understood what the alerts told them.
- i. ☐ Asked drivers whether the alerts affected their driving.
- j. ☐ Asked management whether the alerts made sense
- k. ☐ Sought management buy-in for IVMS use
- l. ☐ Compared pilot tests with more than one vendor
- m. ☐ Performed a test to ensure IVMS data are stored and safeguarded to comply with local laws

Module 3: IVMS Deployment

Training and Installation

3.1. Did your IVMS vendor provide training for supervisors and administrators?

- a. ☐ Yes
- b. ☐ No
- c. ☐ Unsure
- d. ☐ Prefer not to say

3.2. Did your IVMS vendor provide training directly to company drivers?

- a. ☐ Yes
- b. ☐ No
- c. ☐ Unsure
- d. ☐ Prefer not to say

3.3. Does IVMS training include any of the following elements? Select all that apply.

- a. ☐ How the IVMS technology works
- b. ☐ What the monitor records
- c. ☐ How drivers are notified of a safety event (e.g., in-cab notification)
- d. ☐ What the driver is expected to do in response to a safety event (e.g., in-cab notification)
- e. ☐ What data will be collected
- f. ☐ Why those data will be collected
- g. ☐ How it will be protected
- h. ☐ How frequently data will be reviewed
- i. ☐ What will be done with the information to reduce event frequency (e.g., coaching, changing routes, etc.)
- j. ☐ How to review IVMS scoring
- k. ☐ How to interpret IVMS reports
- l. ☐ Protocols for reviewing safety events
- m. ☐ Circumstances that could incorrectly trigger events
- n. ☐ How drivers can report IVMS errors
- o. ☐ How errors are corrected in the system

3.4. Approximately how many person-hours does your company dedicate to IVMS training each year?
One person-hour is one person in training for one hour.

Data Processing and Management

3.5. How long do you retain IVMS data before it gets deleted?

- a. _____ Years and _____ months (enter 0 years if less than 1 year)
- b. ___ It depends on the metric
- c. ___ Unsure
- d. ___ Prefer not to say

3.5.a [IF 3.5. = b THEN]

Please list how you long you retain your key metrics

Metric 1	##	Days/Months/Years
Metric 2	##	Days/Months/Years
Etc.	##	Days/Months/Years

3.6. Please select the following data management practices currently in place for your IVMS data. These could be addressed internally or through a contract with a vendor or third party.

- a. ___ Due diligence checks on the IVMS vendor server to ensure data are safeguarded
- b. ___ Ensuring data processing agreements are current
- c. ___ Checking data localization rules and limitations for the chosen geographical area
- d. ___ Knowing how long IVMS data should be kept and setting up automatic deletion rules
- e. ___ Seeking driver consent if IVMS event data/footage is to be used for training purposes
- f. ___ Processing only data needed for performance monitoring and driver coaching (considerations include company drivers versus contractor drivers, on-duty versus off-duty journeys)
- g. ___ Limiting access to driver specific IVMS data as much as possible (especially video data)
- h. ___ For contractor staff, only processing aggregated or anonymized/pseudonymized data

3.7. Please select the following IVMS data quality practices currently in place at your company:

- a. ___ Calibration and standardization of IVMS metrics
- b. ___ Documented data cleaning processes
- c. ___ Feedback mechanisms to identify and correct errors

3.8. To the best of your knowledge please indicate whether your company has ever shared any in-vehicle monitoring system data, including aggregated data, with any of the following individuals or organizations:

- a. ___ Insurance company
- b. ___ Contractor management company (for example, ISN, Veriforce)
- c. ___ Trade association
- d. ___ University researcher
- e. ___ Government researcher
- f. ___ Private researcher

- g. ☐ Emergency medical services organization
- h. ☐ Law enforcement
- i. ☐ Lawyers from outside of your company
- j. ☐ Other: _____

3.9. To the best of your knowledge please indicate whether your company currently shares any in-vehicle monitoring system data, including aggregated data, with any of the following organizations on a regular basis:

- a. ☐ Insurance company
- b. ☐ Contractor management company (for example, ISN, Veriforce)
- c. ☐ Trade association
- d. ☐ University researcher
- e. ☐ Government researcher
- f. ☐ Private researcher
- g. ☐ Emergency medical services organization
- h. ☐ Law enforcement
- i. ☐ Other: _____

Data Use

3.10. Who assists your company in interpreting your IVMS data? Examples would include creating scorecards or reports for individual drivers, groups of drivers, and/the company as a whole, assessing trends over time, assessing effectiveness of the program for meeting goals. Please check all that apply. (There will be a separate set of questions about driver coaching and feedback later)

- a. ☐ The same company from which we got our IVMS equipment
- b. ☐ A company different from where we got our IVMS equipment, please name the company if you feel comfortable doing so (Specify: _____)
- c. ☐ Fleet service provider (Specify: _____)
- d. ☐ Occupational/environmental health and safety consultant
- e. ☐ IT/data analysis contractor
- f. ☐ Some or all of the Work done in-house.

3.11. In which of the following situations does your company review or analyze IVMS data? Please check all that apply.

- a. ☐ At the level of the firm on a regular schedule (for example, quarterly).
- b. ☐ At the level of the basin on a regular schedule (for example, quarterly).
- c. ☐ At the level of the individual driver on a regular schedule (for example, quarterly).
- d. ☐ A single harsh-braking event.
- e. ☐ Multiple harsh-braking events by an individual driver.
- f. ☐ A single rapid acceleration event.
- g. ☐ Multiple rapid acceleration events by an individual driver.
- h. ☐ A single speeding event.
- i. ☐ Multiple speeding events by an individual driver.
- j. ☐ A single seat belt alert.

- k. ☐ Multiple seat belt alerts by an individual driver.
- l. ☐ A single distracted driver alert.
- m. ☐ Multiple distracted driver alerts by an individual driver.
- n. ☐ Any time there is a collision, regardless of severity, we review IVMS data for the driver and vehicle.
- o. ☐ We review IVMS data only for collisions that meet certain criteria (for example, severity level, type of incident, or involvement of another vehicle).

3.12. Do you analyze data from drivers employed by your contractors?

- a. ☐ Yes
- b. ☐ No
- c. ☐ In some circumstances
- d. ☐ Not sure
- e. ☐ Prefer not to say
- f. ☐ My organization does not hire contractors.
- g. ☐ My organization hires contractors and does not require IVMS.

3.13. Are you able to identify and separate out work-related driving vs. commuting trips in the IVMS data?

- a. ☐ Yes
- b. ☐ No
- c. ☐ Not sure
- d. ☐ Prefer not to say
- e. ☐ My organization does not allow drivers to use IVMS for off-duty trips.

3.14. Are you able to identify off-duty trips in the IVMS data?

- a. ☐ Yes, with no additional external information
- b. ☐ Yes, when the IVMS is used in combination with another information system or dataset (e.g., data capturing a worker's shift start and end times)
- b. ☐ No
- c. ☐ Not sure
- d. ☐ Prefer not to say
- e. ☐ My organization does not allow drivers to use IVMS for off-duty trips.

Driver performance and Coaching

3.15. Does your company coach drivers individually on their driving performance as part of your IVMS implementation?

- a. ☐ Yes
- b. ☐ No

3.16. If your company coaches drivers individually, who is responsible for coaching drivers on their driving performance? (Check all that apply)

- a. ☐ The driver's immediate supervisor or someone from driver's supervisory chain
- b. ☐ The fleet manager from your company
- c. ☐ A health, safety, and environment professional from your company
- d. ☐ A representative from the IVMS manufacturer
- e. ☐ A representative from a fleet services provider or IVMS-specific data management company
- f. ☐ A health, safety, and environment professional from outside your company
- g. ☐ Other (Specify _____)
- h. ☐ My company does not coach drivers
- i. ☐ Do we need the unsure and prefer not to say for every qx?

3.17. How does your company communicate each driver's driving performance / IVMS events back to the driver? Please check all that apply.

- a. ☐ Each driver receives an individualized scorecard/report based on their IVMS-recorded driving events
- b. ☐ Each driver receives a scorecard/report that is grouped at the work unit or company level
- c. ☐ Supervisors and/or fleet managers receive real-time alerts for certain driving events via text or email
- d. ☐ Supervisors and/or fleet managers must log in to a portal to see driver's events and performance
- e. ☐ Supervisors and/or fleet managers see driving events through a scorecard or performance summary that gets pushed to them via email, text, or online notification.

3.17. How does your company use the data collected through your IVMS? Please check all that apply.

- a. ☐ We coach poor-performing drivers to improve their driving skills and performance.
- b. ☐ We give good drivers positive feedback.
- c. ☐ We use the data in investigations of collisions or incidents.
- d. ☐ We use the data to support disciplinary actions for violations of traffic laws and company policies.
- e. ☐ We analyze the data to identify risky behaviors across the fleet, to help us determine the need for new interventions, policies, and educational campaigns.

3.18. Is there currently a system in place to track and record the date and content of individual driver coaching sessions?

- d. ☐ Yes
- e. ☐ No
- f. ☐ Unsure
- g. ☐ Prefer not to say

3.19. How does your company promote quality and uniformity in driver coaching? Please check all that apply.

- a. ☐ Personnel who are responsible for coaching receive training from someone outside our company (e.g., the IVMS manufacturer, fleet service provider)
- b. ☐ An entity outside our company provides ongoing support to ensure quality and uniformity in coaching
- c. ☐ When IVMS results indicate a driver needs coaching, personnel responsible for coaching receive prompts and follow-up reminders to ensure that coaching is done in a timely manner
- d. ☐ Personnel who coach drivers are expected to document coaching sessions, and this information is reviewed at a higher level to ensure quality and completeness

Module 4: Continuous Improvement

4.1. Does your company have a strategy for continuous IVMS improvement?

- h. ☐ Yes
- i. ☐ No
- j. ☐ Unsure
- k. ☐ Prefer not to say

4.2. Does your company periodically revisit IVMS goals and key metrics for monitoring IVMS success?

- a. ☐ Yes
- b. ☐ No
- c. ☐ Unsure
- d. ☐ Prefer not to say

4.3. Does your company develop specific plans for improving key IVMS metrics and meeting IVMS goals?

- a. ☐ Yes
- b. ☐ No
- c. ☐ Unsure
- d. ☐ Prefer not to say

4.4. Does your company regularly monitor progress towards targets?

- a. ☐ Yes
- b. ☐ No
- c. ☐ Unsure
- d. ☐ Prefer not to say

4.5. Does your company update targets to more aspirational levels once previously established ones are reached?

- a. ☐ Yes
- b. ☐ No
- c. ☐ Unsure
- d. ☐ Prefer not to say

4.6. Does your company consider ways to integrate IVMS into fleet and asset management for complete visibility across the business?

- a. ☐ Yes
- b. ☐ No
- c. ☐ Unsure
- d. ☐ Prefer not to say

4.7. Does your company check for unintended consequences of metrics and address them if they emerge (e.g., running red lights to avoid harsh braking)?

- a. ☐ Yes
- b. ☐ No
- c. ☐ Unsure
- d. ☐ Prefer not to say

4.8. Please indicate whether you agree or disagree with the following statements.

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Unsure
Using an IVMS lets me do things I could not do without it.						
Using an IVMS helps me accomplish tasks more quickly.						
Learning to operate the IVMS has been easy for me.						
I currently find the IVMS easy to use.						
My senior management has supported the use of IVMS.						
In general, employees supported the use of IVMS when one was first implemented.						
In general, employees currently support the use of IVMS.						
The IVMS has <u>not</u> been compatible with other systems I use (e.g., for tracking other key performance indicators).						
A specific person or group has provided help when the IVMS has been difficult to use.						
I like using an IVMS.						

Module 5: Road Safety Management Context

5.1. For which of the areas below does your company have formal road safety policies and procedures?
Select all that apply.

- a. ☐ Seat belt use
- b. ☐ Mobile phone use (handheld)
- c. ☐ Mobile phone use (hands free)
- d. ☐ Impaired driving (i.e., alcohol, legal and illegal substances and medications)
- e. ☐ Fatigue risk management
- f. ☐ Speed management
- g. ☐ Pre-trip vehicle inspection
- h. ☐ Driver training
- i. ☐ Training for managers and supervisors related to their road safety role/responsibilities

5.2. Which of the following processes are part of your motor vehicle safety management program?
Select all that apply.

- a. ☐ Background / license check on drivers before hire
- b. ☐ Drug testing
- c. ☐ Periodic repetition of background checks, MVR checks, and/or drug tests
- d. ☐ Identification of high-risk drivers
- e. ☐ Commentary drives
- f. ☐ Regular review of data (e.g., crash, claims, workers' comp, IVMS) for continuous improvement
- g. ☐ Reporting of road safety performance to upper management/fleet safety scorecard
- h. ☐ Collision reviews
- i. ☐ Standards for selection of safe vehicles

5.3. Separate from IVMS are there technologies you require in your fleet vehicles?

- | | |
|--|--|
| a. ☐ Speed governors | h. ☐ Night vision enhancement |
| b. ☐ Forward collision warning | i. ☐ Navigation assistance |
| c. ☐ Blind spot warning | j. ☐ Voice control |
| d. ☐ Lane departure warning | k. ☐ Integrate Bluetooth cell phone |
| e. ☐ Adaptive cruise control | l. ☐ In-vehicle concierge |
| f. ☐ Semi-autonomous parking assist | m. ☐ Back-up cameras |
| g. ☐ Fatigue/drowsy driving alert | n. ☐ 360 degree overhead cameras |
| | o. ☐ Park assist |

5.4. Separate from IVMS are there technologies you prohibit in your fleet vehicles?

- a. ☐ Speed governors
- b. ☐ Forward collision warning
- c. ☐ Blind spot warning
- d. ☐ Lane departure warning
- e. ☐ Adaptive cruise control
- f. ☐ Semi-autonomous parking assist
- g. ☐ Fatigue/drowsy driving alert
- h. ☐ Night vision enhancement
- i. ☐ Navigation assistance
- j. ☐ Voice control
- k. ☐ Integrate Bluetooth cell phone
- l. ☐ In-vehicle concierge
- m. ☐ Other (please specify):
