



MOBILEFRAME®



# 2021 Guide to EHS Software Success: From Idea to Reality

*A 7 Minute Read*



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A Winning 7-step  
Approach to EHS  
Software Success

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Communicate, Communicate,  
Communicate

# DIGITIZING YOUR EHS PROCESSES ALLOWS YOU TO STREAMLINE HOW YOU WORK, IMPROVE PRODUCTIVITY, SAVE MONEY AND MAKE BETTER DECISIONS BASED ON REAL- TIME REPORTING

Follow A Winning Approach



# From Idea to Reality





# PROJECTS FAIL

YOUR PROJECT  
DOESN'T HAVE TO

# 14%

OF IT PROJECTS FAIL  
COMPLETELY

# 49%

OF PROJECTS  
EXPERIENCED SCOPE  
CREEP

Source: Project  
Management Institute



# ACCORDING TO JOHN KOTTER, AN AUTHOR, THOUGHT LEADER AND HARVARD PROFESSOR THERE ARE 7 REASONS WHY EFFORTS FAIL

1. Not establishing a great enough sense of urgency
2. Not creating a powerful enough leadership coalition
3. Lacking a vision
4. Lack of communications
5. Not removing obstacles
6. Not planning for and creating short-term wins
7. Declaring victory too soon
8. Not reinforcing the new behaviors and processes



**Don't Repeat  
the Mistakes  
of Others**



WE'VE LEVERAGED  
THE LESSONS  
LEARNED BY JOHN  
KOTTER AND LAYERED  
IN THE THOUSANDS  
OF SUCCESSES WE'VE  
HAD AT MOBILEFRAME  
TO CREATE A WINNING  
FORMULA FOR  
ORGANIZATIONS TO  
TAKE THEIR EHS IDEAS  
FROM CONCEPT TO  
REALITY





# LESSON 1: DEFINE THE PROBLEM



“IF I HAD AN HOUR  
TO SOLVE A  
PROBLEM, I'D  
SPEND 55 MINUTES  
THINKING ABOUT  
THE PROBLEM AND  
5 MINUTES  
THINKING ABOUT  
SOLUTIONS.”

- ALBERT EINSTEIN





# DEFINE THE PROBLEM

## MOTIVATE

- ✓ Develop a problem statement that motivates your organization to action

## ILLUSTRATE

- ✓ Illustrate what the desired process will look like

## DOCUMENT

- ✓ Document your pain points

## PAINT A PICTURE

- ✓ Paint a picture of what happens if you continue with the current process





# Sample Problem Statement

Clearly articulating your problem statement is the first step in building awareness and understanding of the challenges you are facing

Problem Statement Guideline	Example Response
Describe how your EHS solution should work regardless of existing constraints.	<p>Employees will use EHS software on their phones or tablets to document and report on the "who, what, when, where &amp; why" of any incident. The solution will track details through the completion of the incident management process.</p> <p>Management will use real-time data to prevent, predict, and reduce worker injury and claims. The safety team will generate OSHA-ready reports for work-related injuries &amp; illnesses with the click of a button.</p>
Clearly define the problem. The reader should be able to understand the pain and frustration quickly.	<p>We don't have trusted data about our incidents to make the proper recommendations and changes.</p> <p>Our paper-based process is difficult to manage and is a time-consuming process. It can take weeks to collect the completed forms, ensure the data is accurate, and update our business systems. The information is often incorrect, and important data is usually missing. The safety team constantly follows up on actions, searching for information, and spending hours creating reports.</p>
Explain the financial ramifications of the project. Identify the costs associated with using paper forms and spreadsheets. The information shared here supports your business case.	<p>Automating or digitizing the data collection process associated with incident rates provides us the opportunity to:</p> <ul style="list-style-type: none"> <li>• Send everyone home safe and reduce OSHA recordable incident rates to 0.5 or lower.</li> <li>• Reduce worker comp expenses and worker downtime.</li> <li>• Be more cost-effective by reducing rework by at least 20%.</li> <li>• Save all employee, craft, and administrative personnel at least 1.5 hours per month spent doing paperwork.</li> </ul>
Propose a solution. Be as clear and concise as possible.	<p>We propose that we undergo a digital transformation to eliminate our outdated, manual processes. We want to standardize a single solution for all of our EHS needs to avoid point solution chaos. The software must be customizable to our needs and our policies.</p>
Explain why the solution is a good idea.	<p>EHS software will help keep our employees, facilities, and the environment protected. We will streamline and automate our workflow, policies &amp; procedures to increase bottom-line performance.</p>
Summarize both the problem and the solution.	<p>We need to switch from paper-based processes to a software solution that runs on mobile devices to manage our incident rates quickly and responsibly. Our goal is to use technology to help us prevent, predict and reduce work injury claims.</p>



Requirements

# LESSON 2: REQUIREMENTS MATTER





"AGILE  
DEVELOPMENT  
WORKS 99% OF THE  
TIME WHEN THE  
BUSINESS KNOWS  
AND CAN CLEARLY  
ARTICULATE THEIR  
REQUIREMENTS."

- GLENN WICKMAN,  
MOBILEFRAME CTO





# DEFINE YOUR REQUIREMENTS

## ENGAGE

- ✓ Engage your stakeholders early in the process

## DOCUMENT

- ✓ Document stakeholder requirements

## PRIORITIZE

- ✓ Prioritize requirements based on stakeholder needs and organizational pain points

## BE COMPREHENSIVE

- ✓ Define strategic, functional, and technical requirements





# Strategic Requirements

Define strategic requirements by engaging the various department leaders that will have a vested interest in your program

Strategic Requirement	Description
Scalability	<ul style="list-style-type: none"><li>• The solution must have a flexible server architecture that accommodates growth, handles complex load balancing, disaster recovery, and includes server management tools.</li></ul>
Time to Implement	<ul style="list-style-type: none"><li>• Ability to implement as quickly as possible with minimal dependency on IT resources.</li></ul>
Learning	<ul style="list-style-type: none"><li>• Ability to evolve with the way people learn and communicate.</li></ul>
Culture	<ul style="list-style-type: none"><li>• Provide employees with apps that are compatible with the way they work.</li></ul>
Platform	<ul style="list-style-type: none"><li>• Standardize on a single platform across the entire company for any app and any department.</li></ul>
Workflow / Logic	<ul style="list-style-type: none"><li>• Ability to use logic and workflow with no limitations. A code-free approach is required.</li></ul>
Reporting	<ul style="list-style-type: none"><li>• Ability to deliver real-time reporting dashboards across any device with trusted EHS data.</li></ul>



# Functional Requirements

Gather detailed user needs to define the supporting business case and kick-start technical requirements

Functional Requirement	Requirement Description
Paperless Capture of Observations	<ul style="list-style-type: none"><li>• Ability to capture observations on any mobile device (all information will be paperless, including any notes or pictures that may be required)</li></ul>
Ease of App Changes / Configuration	<ul style="list-style-type: none"><li>• Ability for a business person with no coding experience to design, develop and deploy apps without IT</li></ul>
Observer Feedback & Improvement Suggestions	<ul style="list-style-type: none"><li>• Ability to provide feedback for improvement through the app</li></ul>
Reporting: Scoring Capabilities	<ul style="list-style-type: none"><li>• Ability to generate reporting according to any hierarchy with supporting scoring capabilities</li></ul>
Deployment of App Changes	<ul style="list-style-type: none"><li>• Ability to deploy any changes to an app in real-time with no manual intervention required by the user</li></ul>
Photo Capture & Annotation	<ul style="list-style-type: none"><li>• Ability to capture photos, including additional information such as GPS coordinates, timestamps, annotations, etc.</li></ul>
Language Capabilities	<ul style="list-style-type: none"><li>• Ability to generate workflow, forms, etc., in the desired language (e.g., Spanish, German, Korean, etc.)</li></ul>
Workflow/ Business Rules	<ul style="list-style-type: none"><li>• Ability to design and configure complex workflows and logic</li></ul>
User Experience	<ul style="list-style-type: none"><li>• Easy to use, intuitive and responsive</li></ul>
Management Reporting	<ul style="list-style-type: none"><li>• Ability to create custom database queries without vendor or IT support</li><li>• Ability to create web dashboards without writing code</li><li>• Real-time data capture and reporting</li></ul>
Messaging	<ul style="list-style-type: none"><li>• Real-time messaging built into the app</li></ul>
Signature Capture	<ul style="list-style-type: none"><li>• Capture approvers signature as required in the workflow</li></ul>
UI	<ul style="list-style-type: none"><li>• Ability to brand the app in a department or organizational style</li><li>• Ability to customize the UI</li></ul>
Offline Capabilities	<ul style="list-style-type: none"><li>• Works in disconnected mode</li></ul>



# Technical Requirements

Define technical requirements to ensure the proposed solution fits into your tech stack with minimal effort

Technical Requirements	Requirement Description
Integration	<ul style="list-style-type: none"><li>• Integrate to any enterprise system or database, including ERP, CRM, and legacy systems</li><li>• Must be able to integrate with Active Directory or LDAP</li></ul>
Security	<ul style="list-style-type: none"><li>• Ability to meet company security requirements</li></ul>
Operating System Agnostic	<ul style="list-style-type: none"><li>• Cross-platform support is required without the need to maintain separate code bases. Support must include iOS, Android, Windows, and the web</li></ul>
App Updates	<ul style="list-style-type: none"><li>• Ability to push updates on demand. No manual intervention required by the user</li></ul>
Batching	<ul style="list-style-type: none"><li>• Ability to create batch jobs to be run on any frequency required</li></ul>
Version Control	<ul style="list-style-type: none"><li>• Ability to show the history of app changes</li><li>• Ability to rollback to previous versions if required</li></ul>
Vendor Updates / Releases	<ul style="list-style-type: none"><li>• Ability to sync new versions of software remotely without recalling devices for updates</li></ul>
Connectivity	<ul style="list-style-type: none"><li>• Offline, disconnected use is required so users can always be effective even without connectivity</li></ul>
Remote Device Management	<ul style="list-style-type: none"><li>• Control devices remotely so administrators can reset handheld databases, log off users, trigger sync, view device statistics, set rule-based actions, and restrict app usage</li></ul>
On-Premise vs. Cloud	<ul style="list-style-type: none"><li>• Software must be flexible enough to be deployed on-premise or in the cloud</li></ul>
Architectural Fit	<ul style="list-style-type: none"><li>• Fits into the current company IT architecture</li></ul>
Lifecycle Development	<ul style="list-style-type: none"><li>• Offers complete lifecycle capabilities that allow users to design, develop, integrate, deploy and manage multi-channel apps with a single solution</li><li>• Provides mobile app development tools, a graphical screen designer for perfecting UI, an integration wizard, a built-in test environment (with integrated diagnostics and debugging) to simulate a live deployment, and mobile device management capabilities that support both BYOD and enterprise-owned mobility programs</li></ul>



# Requirements

## Example:

# Inspections

Inspection Questions	YES	NO
Does the EHS solution support workflow to take corrective actions?		
Can you set alerts?		
Are you able to provide real-time reporting?		
Does the way data is captured reinforce the system is using trusted data?		
Are you able to make changes to the solution in real-time and immediately deploy to the field?		
Does the solution allow users to work both on and off-line?		
Are you able to capture GPS coordinates automatically?		
Are you able to take pictures and make annotations?		
Are you able to create a variety of inspections?		
Are you able to track actions associated with the inspection?		
Does reporting support OSHA and other regulatory reporting agency requirements? <input type="checkbox"/>		



# LESSON 3: BUILD A BUSINESS CASE





**"WITHOUT A  
BUSINESS CASE,  
HOW CAN WE MAKE  
DECISIONS AND  
TAKE ACTION?"**

**- UNKNOWN**





# BUILD A BUSINESS CASE

## QUANTIFY



Quantify the need for your EHS solution

## FOCUS



Focus on what matters most such as productivity gains & ability to make real-time decisions based on trusted data

## COSTS & BENEFITS



Clearly identify the costs and benefits associated with the proposed EHS solution

## ASSUMPTIONS



Document the assumptions behind the business case & the associated owners





# Business Case

Build a business case using trusted data that is meaningful and articulates the business value associated to your EHS mobile efforts

Common Business Benefits	Sample Metrics
Cost Savings / Expense Reduction	<ul style="list-style-type: none"><li>• Annual savings in insurance premiums of X</li><li>• Savings of \$X total FTE expense</li></ul>
Productivity Increase	<ul style="list-style-type: none"><li>• X hours per week saved because there is no need to follow-up for missing or incomplete information, missing forms, etc.</li></ul>
Data Integrity	<ul style="list-style-type: none"><li>• Increase in data accuracy from X% to Y%</li><li>• Real-time capture and reporting of data</li></ul>
Management Reporting	<ul style="list-style-type: none"><li>• Reporting will allow a management team to analyze root causes</li><li>• Data will be trusted and provided in real-time</li></ul>
Employee Satisfaction	<ul style="list-style-type: none"><li>• HR policies and procedures are followed, treating employees fairly and consistently</li><li>• Office staff required to "follow-up" on insufficient data can now spend time on higher value items</li></ul>

Assumption	Owner (Person who is signing off on the assumption)
The project will be implemented globally and fully rolled out in 3 months or less	
XYZ Insurance company premiums will be reduced by _____ as a result of going paperless	
There are X users	
The average amount of administrative time saved by automating paper processes is _____	
The data entry time is approximately _____ per week	



# LESSON 4: DEFINE THE DECISION MAKING CRITERIA



**“YOU CANNOT  
MAKE PROGRESS  
WITHOUT MAKING  
DECISIONS.”**

- JIM ROHN





# DEFINE DECISION MAKING CRITERIA

## DEFINE THE PROCESS



Don't make the decision-making process personal; define the criteria and process first

## GAIN CONSENSUS



Share the decision-making criteria with key stakeholders to get and include their feedback at the start of the process

## STICK TO THE CRITERIA



Focus decision-making sessions on the agreed-upon decision-making criteria

## COMMUNICATE



Share the decision-making process with your organization to support adoption





# Decision Making Criteria

Define the criteria you will be using to make a decision on the "best fit mobile solution and app".

Share the decision-making criteria with key stakeholders at the beginning of your project.

Questions	Commentary
Does the solution meet your core strategic requirements?	
Does the solution meet your core functional requirements?	
Does the solution meet your core technical requirements?	
Is the solution an overall fit with your organization?	
What are customers saying about the solution? The good, the bad, and the ugly?	
What training is available?	
Is the solution a "mobile-first" design?	
Does the solution "KISS"?	
What is the Total Cost of Ownership (TCO)?	
Other Questions?	



○ |  
"THE KEY TO  
USER ADOPTION  
IS MAKING NEW  
WAYS OF DOING  
THINGS EASIER  
THAN THE OLD  
WAYS."

- LONNY OSWALT,  
MOBILEFRAME CEO





# CLEAR ROLES & RESPONSIBILITIES

## INVITE KEY STAKEHOLDERS

Include all parties at the beginning of the process to achieve buy-in and get the right resources allocated to your project



## MINIMIZE SURPRISES

Engaging key stakeholders at the beginning will minimize surprises, increase engagement levels, define better needs/requirements, capture concerns & potential roadblocks & improve communications



## KNOW YOUR ROLES

A RACI stands for Responsible, Accountable, Consulted & Informed --know who is responsible for what





# Roles & Responsibilities

Define clear roles and responsibilities

RACI	Role(s)	Responsibilities
Responsible	The people who do the work and provide the data for the decision-making process. In a mobility effort, typical responsibilities are:	<ul style="list-style-type: none"> <li>● Conducts the analysis required to validate requirements               <ul style="list-style-type: none"> <li>○ Functional</li> <li>○ Technical</li> <li>○ Strategic</li> </ul> </li> <li>● Builds the business case</li> <li>● Obtains positive confirmation of supporting assumptions</li> <li>● Participate in demos</li> <li>● Identify &amp; engage all stakeholders</li> <li>● Define selection criteria</li> </ul>
Accountable	There can be only one—the sole person who approves a decision. A decision can be multifaceted, requiring multiple choices made by different people; however, it is not a consensus.	<ul style="list-style-type: none"> <li>● Approves the selection criteria</li> <li>● Approves the budget</li> <li>● Approves the final recommended solution</li> <li>● Allocates resources</li> </ul>
Consulted	The individuals who are typically subject matter experts or the people impacted by the decisions. This role may influence but does not have a part in the final decision-making process.	<ul style="list-style-type: none"> <li>● Consulted in identifying requirements               <ul style="list-style-type: none"> <li>○ Functional</li> <li>○ Technical</li> <li>○ Strategic</li> </ul> </li> <li>● Validates assumptions</li> </ul>
Informed	The individuals doing the work that is changed. In a mobility effort, those that need to be informed do not play a role in the mobility selection process. A representative “user group” may be involved to build buy-in.	<ul style="list-style-type: none"> <li>● Typical groups informed are:               <ul style="list-style-type: none"> <li>○ Non-Participating Leadership Team</li> <li>○ Users</li> <li>○ Managers of Users</li> </ul> </li> </ul>



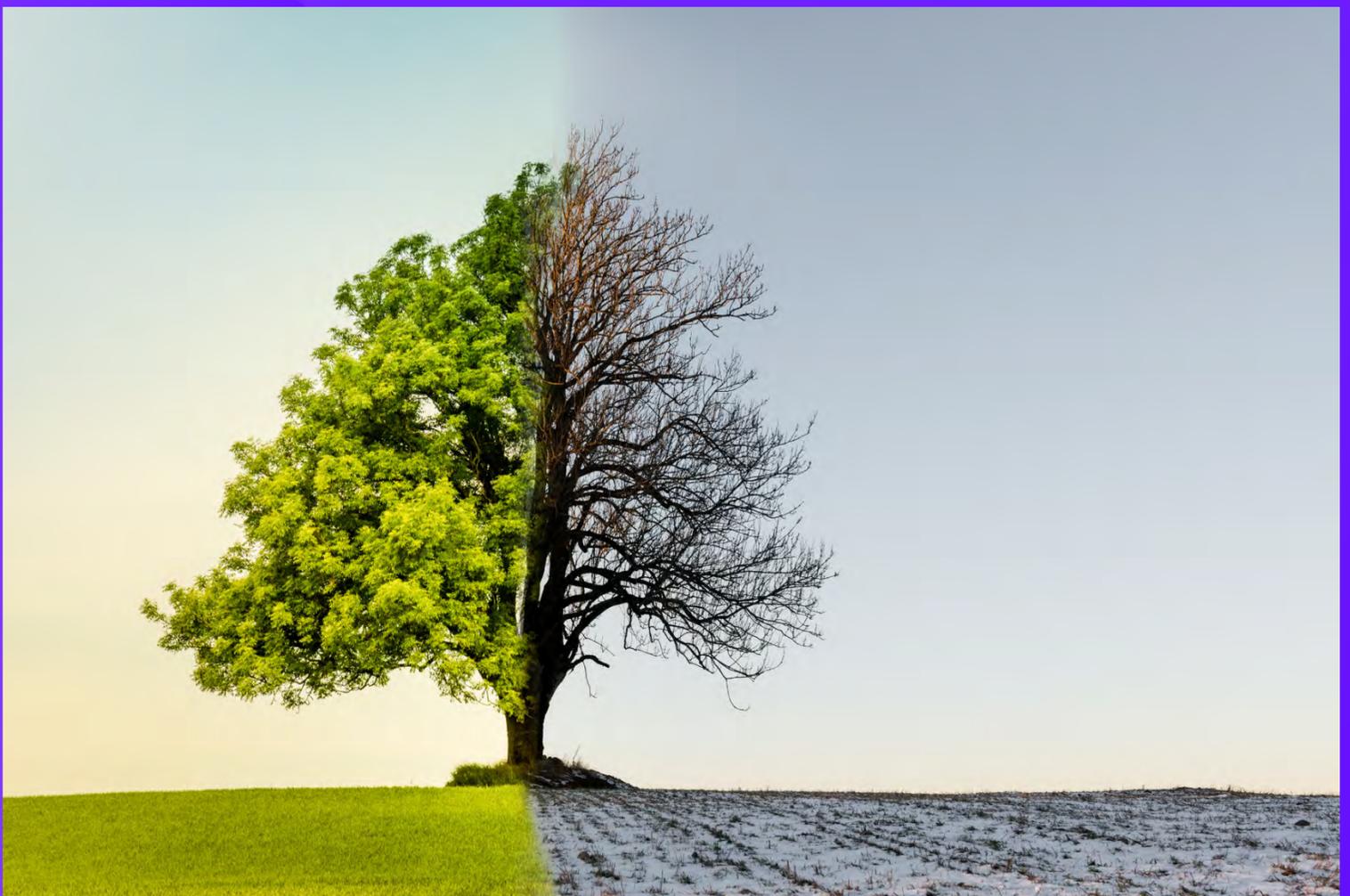
# LESSON 6: CHANGE HAPPENS



○

**“IT IS NOT  
NECESSARY TO  
CHANGE.  
SURVIVAL IS  
NOT  
MANDATORY.”**

- W. EDWARDS DEMING





# CHANGE HAPPENS: BE PREPARED

## BE PREPARED

- ✓ As we all know, change happens, whether we want it to or not. Be prepared to adapt to new user needs, market changes, etc.

## FLEXIBILITY

- ✓ Ensure your EHS solution is able to meet the ever-changing demands of your business and most importantly your customers

## PRIORITIZE & MEASURE

- ✓ Not every change request requires a change; ensure you have a change control process that prioritizes changes based on pre-defined requirements





# Change Checklist

Capturing and acting on user feedback is needed to support user adoption and optimization of the EHS app

Questions	Answers
Can the user community quickly provide feedback on the app?	
Can a user easily submit a change request?	
Are the parties responsible for the app participating in a clearly defined process on what changes can and can't be made?	
Is an impact assessment being done for each change requested?	
Is there a clearly defined approval process for making changes to the app?	
Is the person kept updated on their change suggestions?	
How are users being kept updated regarding changes made to the app?	
Is there a reporting process in place to reinforce the value and the use of the app?	

# SMART Goals

**S** Specific

**M** Measurable

**A** Achievable

**R** Realistic

**T** Timely

## LESSON 7: BE SMART



“WHAT GETS  
MEASURED GETS  
MANAGED.”

- WILLIAM THOMSON,  
LORD KELVIN





# SET SMART GOALS

## DEFINE SUCCESS



Paint a picture of what success looks like that allows everyone in the organization to go in the same direction

## KNOW THE TIMELINE



Time is money, manage against the timeline -- make the tough decisions to keep your project on track

## PRIORITIZE



Be clear by defining what tasks are required to be completed & when



## FOCUS RESOURCES

Keep resources laser focused on the tasks at hand





# SMART Goal Template

Setting Specific, Measurable, Actionable, Relevant, and Timely goals clearly defines actions required and expected results

SMART Element	Success Criteria	Paperless SMART Example
Specific	<ul style="list-style-type: none"><li>Is the expected result defined in sufficient detail?</li></ul>	<p>Identify and automate all paper processes associated with incident reporting by replacing paper forms with customized apps to meet our specific business requirements.</p> <p>Data collected in the apps must be integrated into back-end systems and provide real-time reporting. Additionally, the apps must be able to provide access to real-time data to the user.</p> <p>The 87 people who use paper forms today for incident reporting-related data capture will use apps within two weeks from the start of the project.</p> <p>Automating these paper processes will save 150 hours per week associated with capturing, tracking, and entering data from the paper forms.</p> <p>Real-time data analysis will allow for specific actions to be taken that will result in an immediate 10% reduction in incidents.</p>
Measurable	<ul style="list-style-type: none"><li>Is the objective measurable so that both progress and success have metrics reported using trusted data?</li></ul>	
Achievable	<ul style="list-style-type: none"><li>Is the objective challenging yet realistic? Can it be accomplished with the resources immediately available?</li></ul>	
Relevant	<ul style="list-style-type: none"><li>Will the objective make a difference in today's business environment? Will it reflect the realities of our business today?</li></ul>	
Timely	<ul style="list-style-type: none"><li>Is the goal specific, and does it have a realistic timeframe?</li></ul>	



# LESSON 8: COMMUNICATE, COMMUNICATE, COMMUNICATE





"COMMUNICATE FOR



UNDERSTANDING AND BUY-IN. MAKE SURE AS MANY OTHERS AS POSSIBLE UNDERSTAND THE VISION & STRATEGY."

-JOHN KOTTER





# COMMUNICATE

## SEGMENT



Segment your audiences & communicate what's important to them

## QUICK HIT WINS



Set your EHS project up for success and identify quick wins you can communicate to show momentum

## BE CONSISTENT



Set up a communication schedule and stick to it, even when you think you have nothing to say

## NO ONE OVER COMMUNICATES



People want information, there is no such thing as over-communicating





**MOBILEFRAME<sup>®</sup>**

# Contact Us

**IF YOU'RE LOOKING FOR A  
COST-EFFECTIVE, EASY-TO-  
USE EHS SOFTWARE  
SOLUTION THAT GETS YOU  
THE ROI YOU WANT, WE  
CAN HELP**

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