The identification and prioritization of Program Executive Officer Land Systems (PEO LS) programs' top technical issues starts the process of determining which top technical issues will result in the development of an associated capability. These issues are vetted through each program's Science and Technology (S&T) representative, lead engineer, deputy program manager, and program manager for concurrence and prioritization.

The top technical issues across all PEO LS programs are then rolled up into similar categories that establish key focus areas and informs the prioritization of funding and research efforts. A top-down approach of aligning S&T investment areas with the bottom-up prioritized list of Top Technical Issues ensures a consolidated and focused effort to resolve each program's technical issue (see figure 3-1).

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**PEO LS Top Technical Issue to Capability “Roll-Up”**

- **Identify** Top Technical Issues across PEO LS Programs
- **Communicate** issues to key stakeholders
- **Align** top issues with high-priority gaps and technologies
- **Engage** all applicable S&T venues
- **Resolve** technology gaps
- **Transition** capability

Identifies and prioritizes the Top Technical Issues of each program.

Identifies the Top Technical Issues across all PEO LS Programs represented by “rolling-up” the totals of “like” issues noted by the programs in PEO LS.

Matches a “top down” listing of key S&T investment areas from OSD, AT&L, DDR&E S&T, ONR/NRL, Army, Air Force, DoD Agencies, and industry with the “bottom up” prioritized list of Top Technical Issues for PEO LS Programs.

Identifies critical, cross cutting, and actionable categories selected by their relevance to inform and influence High Priority Technology investment decisions, resolve critical issues, and support transitioning warfighter capabilities.

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*Figure 3-1. PEO LS Technical Issues to Capability “Roll-Up”*
This process assists S&T representatives from all PEO LS programs to work through the Top Technical Issues of their programs and identify capability gaps where S&T could potentially lead to requirement solutions. This collaborative approach has proven extremely valuable not only in identifying individual program technical cross-cutting issues, but also in identifying technology issues that are common among other PEO LS programs. By understanding these common technical challenges, PEO LS can better align and leverage resources across the S&T enterprise. Figure 3–2 identifies the Top Technical Issues of each PEO LS Program.

<table>
<thead>
<tr>
<th>PEO LS Programs’ Top Technical Issues Roll-Up</th>
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<tbody>
<tr>
<td><strong>Program</strong></td>
</tr>
</tbody>
</table>
| Assault Amphibious Vehicle (AAV)              | • Survivability  
• Weight/Buoyancy Management  
• Reliability/Sustainment |
| Amphibious Combat Vehicle (ACV 1.1)           | • Survivability  
• Weight  
• Crew Visibility |
| Common Aviation Command & Control System (CAC2S) | • Bandwidth Efficient Radar Measurement Data Distribution  
• Bandwidth Efficient Networked Voice Communications Vehicles  
• Cross Domain Security Solutions  
• Small Form Factor CAC2S  
• Contextual Search Engines |
| Ground Based Air Defense (GBAD)               | • Counter Unmanned Aircraft System (UAS)  
• Stinger Night Sight Replacement |
| Ground/Air Task Oriented Radar (G/ATOR)       | • Lowering Manufacturing Costs  
• Increased Dynamic Range  
• Advanced Electronic Protection |
| Joint Light Tactical Vehicle (JLTV)           | • Weight/Protection  
• Vehicle Network  
• JLTV-Close Combat Weapons Carrier (CCWC)  
• Missile Reloading Improvements |
| Logistics Vehicle Systems Replacement (LVSR)  | • Fuel Consumption  
• Increased Survivability  
• Safety |
| Medium Tactical Vehicle Replacement (MTVR)    | • Fuel Consumption  
• Increased Survivability  
• Safety |
| Mine-Resistant Ambush Protected (MRAP) Family of Vehicles: Buffalo, Cougar, and M-ATV | • Stress cracks in welded construction and monolithic hulls both using high hard steel  
• Transparent Armor  
• Reduction in occupant accelerations with minimal stroke distance availability |
| Lightweight 155mm Howitzer (LW 155)           | • Navigation in a GPS Denied Environment  
• Safe and Transportable Battery High-Capacity Technology  
• On System Power Generation and Conservation  
• Secure Wireless: Ruggedized/Low Energy |

*Figure 3-2. PEO LS Programs’ Top Technical Issue Roll-Up*