Overview of the NSIB Report Card

Panelists:

Ms. Rachel Hoff, Policy Director, Ronald Reagan Institute

Mr. Eric Snelgrove, CEO, Revere Federal Strategies

Rachel Hoff:

Eric and I are going to take a few minutes just to run through an overview of the Report Card with you now in a little bit more depth. The report cards are available in these white folders just outside in the lobby. Spiral bound for all of you to take back to your desks. Our goal with the report card was to really lay a concrete foundation for today's conversations, to really anchor the conversations in a hard assessment of where we are, where we've been, where we need to go. Beyond this summit, of course, we hope that this informs the work that you do across this space as well, and that it's useful to our virtual audience.

Let me start with a brief explanation of the methodology on the report card itself. So we started by identifying a key set of indicators. What's really driving the health, the resilience of this National Security Innovation Base ecosystem, and also the government's ability to leverage that ecosystem toward its broader national security goals. Under each indicator, we developed a set of assessment questions and associated each assessment question with a number of criteria upon which to evaluate each overall indicator. We sourced a broad fact base, thanks in large part to our knowledge partners at McKinsey, as the senator mentioned. The fact base informs a set of both qualitative and quantitative metrics that are used to measure all of our criteria. Each then receives its individual letter grade, and that informs the letter grade for the overall indicator. A word on grading.

We tried to be tough but fair in our grading. We're eager to hear your assessments during Q&A or over lunch as well in the reception. A's were really meant to identify areas where the United States is truly best in class, whether we're doing well compared with our competitors, doing great compared with our competitors, or even compared with the power of our own potential as America. Where we're truly distinctive. B's, it's
important to qualify and clarify in a room of overachievers. B’s are good grades. B’s are where we see sources of strength across key aspects of this ecosystem. And yet there’s some room for improvement compared to either, again, where our competitors are or where we ourselves need to be. With C’s, we identified particular vulnerabilities or inconsistencies that need significant improvement. With D’s, we’re looking at major vulnerabilities, really concerning aspects underlying the ecosystem itself.

You’ll see here in a minute. No F’s assigned this year from the assessment team, but we reserve the right to do so in future years if things move in the wrong direction based on changes in the broader environment. And that’s really meant to sort of represent the, the sort of fatal baseline of those weaknesses and vulnerabilities, undermining our competitive edge and becoming catastrophic to US national security goals. Finally, each grade you’ll see is associated with a particular trend line here, in the bottom right. So, this is meant to say – in recent years, say the last five years, there’s been a lot of conversation, a lot of reforms, both on the Hill at the Department, innovations in the private sector. So, in recent years, where’s our performance going? Are we trending up, trending down, or staying flat? In the coming years with the report card, we plan to do this on a regular basis.

We’ll be able to use this year’s inaugural report card as a baseline and assess those trend lines based on the actual grades this year and then year-on-year as we go. So, what did we measure? We came up with a set of ten key indicators that you see here on, on screen, divided into Inputs and Outputs. First, Customer Clarity. This is an assessment of how the US government functions as a customer in terms of providing the right demand signal to our partners in the private sector about how to innovate against our national security goals. Important to note here, that this is a broad scope of US government to include inter-agency across the executive branch, not just DoD, and, importantly, Congress as well. Final note on this, it’s an important one, we have a whole panel on it. Following through on those stated objectives. So, not just talking the talk, but walking the walk.

Number two, Innovation Capital. Here, we looked at a broad set of both public and private financial capital as well as some non-financial assets and infrastructure. Not just the availability of that capital, but also the accessibility of that capital. The third indicator – Private Sector Innovation Base – is meant to assess a broad set of innovators from traditional defense company to startup dual use tech companies in this space. How competitive those companies are on a global scale, and also how resilient that ecosystem is. Number four, Public/Civil Innovation Base. Another broad scope here of the base of public oriented research institutions from government labs to FFRDCs and UARCs and to include the university infrastructure and academia as important research partners in this space. Fifth – Government Alignment – measures inter-agency coordination among the federal government, but also importantly, coordination between federal and state and local governments toward our national security goals. International Alliances & Partnerships: How well are we integrating with the innovation bases of our trusted friends around the world? And that closes out our Inputs.

The Outputs are a set of three, what we would look at, not as drivers, but as what we would expect to see in a healthy NSIB ecosystem. So first, Innovation Leadership. Simply put, we’d wanna see first-in-class overall quality of US research and knowledge on a global scale. Defense Modernization: How effectively are we translating innovations into capabilities and are we doing so at the speed of relevance? And finally, Pull-Through for Broader National Priorities: Here we’re looking for kind of the multiplier effect. So where
are NSIB efforts are lending themselves to positive externalities across our broader economy and also overall government effectiveness. So, with that, and those kind of key terms defined, let me turn it over to Eric Snelgrove to run through what you've all been waiting for. The grades themselves.

Eric Snelgrove:
Yes, thank you Rachel. I will now briefly review the Report Card grades for the 10 indicators and then we'll briefly display some of the Signature Recommendations that will be discussed throughout the day. Beginning with Customer Clarity, one of the lowest overall scores of a D due to a continued lack of consistency with rhetoric about the need to be innovative and make big bets and the actual follow through. There are inconsistent tech priorities across the various services and agencies and novel pathways remain small in scope, which blurs the NSIB demand signal for actual production and scaling. Additionally, the failure of Congress to pass on-time appropriations adds to additional delays and costs into an already strained defense budgeting and acquisition process that would benefit from increased flexibility. Mixed to poor outcomes on staffing, aligned tech priorities and roadmaps, trade-offs in a constrained resource environment, an unclear and slow procurement pathways are all vulnerabilities for the NSIB that will be discussed throughout the day.

Number two, Innovation Capital, which received a B-, is generally an area of strength. Significant public and private capital are available for NSIB innovation priorities. However, there is room to more efficiently deployed capital against national security, breakthrough innovation priorities at key stages of a company's lifecycle, while simultaneously exploring other financial incentives and mechanisms for defense and dual use startups to accelerate and then scale their capabilities. We will have a separate panel on this indicator – discuss in greater detail later today, and obviously very timely, given the events over the weekend. For Private Sector Innovation Base, which received a B, is also an area of strength. The report found that there exists sufficient breadth and depth in the NSIB to spur the innovative outcomes required with the number of overall participants and new entrance increasing. However, some key defense technologies still have limited concentrations due to consolidation, supply chain limitations, and industrial based policy and incentives.

Overall, the NSIB has sufficient economic dynamism to respond to shocks and global competition, but low margins and supply chain constraints do drag on the NSIB. Number four, Public/Civil Innovation Base received a B-. Overall, our constellation of public labs and research institutions remains a clear competitive advantage. There is sufficient funding for public sources of innovation, including government and defense laboratories, federally funded research and development centers, and our premier universities. Collaboration with these innovation centers remains robust, but technology transfer and measuring their output remains an area for continued improvement. There are opportunities to improve the efficiency of the nearly 150 billion in NSIB-related investments across these institutions with greater oversight to ensure their contributions are aligned against specific technology areas where the private sector lacks the required infrastructure expertise or incentives to lead.

Number five, Government Alignment. This indicator received a C and it is an area where we would benefit from recommended improvements. While some marquee programs, such as the CHIPS Act, have spurred federal, state, and local coordination to support
innovation priorities, this remains the exception to the rule. The NSIB is geographically diversified with 47 out of 50 states receiving over 1 billion in DoD contracts. However, the ability to amplify this buying power with greater state and local coordination is lacking, nor is it clear within the Defense Innovation Ecosystem who has responsibility for this role. Aligning incentives, coordinating activities, and sharing best practices for both informal and formal NSIB support across the federal, state, and local governments are activities that are not clearly defined between the various organizations, whether that is the DoD's Office of Local Defense Community Cooperation, the PAC's Accelerators, formerly known as the Procurement Technical Assistance Centers or the National Security Innovation Network.

Number six, International Partnerships & Alliances received a C- after we assessed how the US government is balancing the need for greater technology sharing with our allies and partners, while simultaneously managing the protection of intellectual property, export controls, foreign investment, and the security of our research and weapons systems. While trending positively, and pleased to see the announcement yesterday on greater technology sharing with Australia, the number of science and technology agreements between the United States and foreign partners is at a near 10-year low. International partnerships should also be viewed as an opportunity to address the vulnerabilities within our own defense industrial base to include enhancing US cooperation with allies to address our global supply chain constraints and domestic manufacturing capacity limitations. And while strategic technology alliances play an important role in research and development cooperation, the DoD must also embrace and expand grassroots, service-driven initiatives such as the Navy's Task Force 59 in the Middle East.

Finally, on the topic of technology protection, scrutiny of foreign investments is increasing, as measured by the number of CFIUS reviews, but a small share of exports to China are subject to these controls. Chinese investment into startups remains high and digital protections are insufficient, resulting in significant intellectual property theft. And finally, the last input indicator on this slide – talent base – is one of the lowest scoring grades on the Report Card, which received a D+. As Rachel stated, this indicator explored both domestic talent in STEM and skilled trades, and also how well the US leads in attracting and retaining foreign talent for national security missions. Domestically, the US talent pipeline is strained and US students underperform peers in NSIB critical capabilities, the defense workforce does not fully engage the best of US talent. Including the proportion of women in the workforce, the overall workforce is aging and under-indexed in proficiency and priority technology areas. The foreign talent pipeline is also facing challenges – with a lack of diversity that presents significant vulnerabilities, lengthy pathways for visas, in competitor programs that are exploiting these weaknesses to draw talent away from the United States. On the other hand, once foreign talent is engaged in the NSIB, the US excels at retaining it, which makes the value proposition that much greater if we can address the issue on the front end – to get them here and keep them here.

Now, we're gonna look at the three input indicators. First, America’s overall Innovation Leadership remains a competitive advantage and is the highest grade of all indicators with an A-, but one that is at risk and we cannot be complacent. The US leads knowledge output based on these key indicators, including the number of global patents, and it continues to be a leader in critical technologies based off third-party assessments. However, strategic competitors, such as China, are gaining influence within international
standards organizations, and has surpassed the US in percent of research papers in the most cited academic journals, which is an indicator of research influence and the quality of that research. The US must be more proactive in communicating the risks of Chinese influence within standard setting organizations when it threatens fair competition, impacts privacy consideration, or increases barriers to trade.

Number nine, Defense Modernization, received a C grade. As Rachel stated, this indicator is measuring how well NSIB innovations are converted into actual US national security capabilities and how effectively the US is adapting its models in systems for actual acquisition. Fielded assets in critical technology areas demonstrate the pull-through of NSIB innovation, but readiness and interoperability lag expected progress. Novel acquisition pathways are growing in use, but large programs face process and oversight challenges, while smaller acquisition pathways face pull-through challenges and a lack of clear guidance within the Department. While the DoD’s use of prototype Other Transaction Authorities is on the rise, the increase is slowing and it remains to be seen if these will lead to important follow-on production awards in the fielding of new capabilities. And finally, indicator number 10, Pull-Through for Broader National Priorities, received a B–.

Overall, the US remains the global leader in NSIB, relevant services, and defense capabilities. The economy receives spillover benefits from these investments, including economic growth, productivity, return on investment, and increased employment. The human capital impact of the NSIB across the United States is profound, with the aerospace and defense sector employing over 2 million people in all 50 states with average salaries 40% above the national average. This is a clear competitive advantage that we must harness. And now, I’ll briefly display some of the Signature Recommendations. Many of these will be addressed throughout the day, but they specifically target those indicators that scored lower, had specific deficiencies that we feel warranted a clearer plan of action, or positive trends that presented opportunities for the United States to double down on. Thank you.

###