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SBIR Commercialization:
Inserting Phase III Innovations
Into Government Missions

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SBIR Commercialization: Inserting Phase III Innovations Into Government Missions

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SBIR Commercialization: Inserting Phase III Innovations Into Government Missions

- ❖ Why are we here today?
- ❖ Because SBIR can contribute to the War Fighter with new products and innovations developed by Small Business Concerns (SBCs)
 - SBIR products are already locating IEDs
 - Non-skid surfaces on carriers are saving lives
 - New towed arrays are making the submarine even more lethal
 - Many others are on display here

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- ❖ The SBIR Program is one of the most successful programs since the GI Bill
- ❖ However, today we are engaged in a great struggle – testing whether the SBIR Program – which has proven it can *develop technologies* – can convert those technologies into *products*, on a program, accepted, and wide scale basis, and get them to the War Fighter ready for use
- ❖ If it can, SBCs, the War Fighter, large contractors and the Nation benefit

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- ❖ A unique and essential attribute of the SBIR Program is that the U.S. Government is SBIR's ultimate customer
- ❖ SBIR is a commercialization Program that the Government and Government personnel oversee, administer, operate, and implement
- ❖ Phase III must satisfy the customer's requirements, and the wishes and direction of the Program and Acquisition Office personnel

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- ❖ In addition to the Government, SBCs are the other major players in SBIR
- ❖ SBCs have less resources to commercialize products than large firms
- ❖ SBC entrepreneurs generally have less formal procurement experience than Prime Contractors and are generally less familiar with Phase III procurements – which are more like standard procurements

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- ❖ There are a number of models for pursuing Phase III SBIR business:
 - Model 1: Selling directly to the government;
 - Model 2: Selling to primes as a subcontractor;
 - Model 3: Selling the SBC to a Prime Contractor which inherits Phase III rights
 - Model 4: Selling a product line or business unit to a Prime Contractor which inherits Phase III rights to that product line

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- ❖ First Model: Selling SBIR innovations directly to the Government:
 - A proven model -- the one most SBIR firms prefer
 - SBC owners like it because they profit directly from their innovations, own and control their products, and maintain their independence
 - The major disadvantage: this is not the model the Government prefers – it generally wants to buy in scale through its largest Prime Contractors

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- ❖ Second Model: Subcontracting and selling products through the Prime Contractor:
 - Advantages: This model aligns more with the Government preference for doing business with its largest contractors
 - Disadvantages: Large contractors don't want to be resellers of SBC's products – the “Not Invented Here” syndrome – and SBCs face potential for intense negotiations, paperwork, costs, and intellectual property (technical data rights) disputes with primes

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- ❖ Third Model: The Prime Acquires the SBC
 - Advantages: the Prime Contractor now controls the products of the SBC, has become a “successor in interest” to the SBC, gains the advantages of the Phase III, and products can be treated as “Invented Here”
 - Disadvantages: SBIR entrepreneur has to sell the entire SBC, and Prime Contractor buys the entire SBC, including technologies and products the Prime Contractor may not want

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- ❖ SBIR firms can and are pursuing these three models currently – with some success
- ❖ However, there is a Fourth Model:
 - Selling a product line or business unit to a Prime Contractor
 - It is the least utilized and understood of all of the potential Phase III business models

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- ❖ Understanding the Fourth Model, requires an understanding of Phase III
- ❖ Phases I and II focus on two players: 1) the SBC researcher and 2) Government sponsor
- ❖ Phase III involves 1) insertion of actual technologies and products into the DoD mission, and, as a result, 2) two additional essential players: the War Fighter, and Prime Contractors

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- ❖ *Query:* Is there a place in the SBIR Phase III Program for the War Fighter?
- ❖ *Answer:* *There had better be; or the Phase III Program will fail*
- ❖ The War Fighter has to be concerned that every SBIR Phase III originated with a Phase I – which asked the basic question “Is this idea even feasible?” or “Will it work?”

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- ❖ The War Fighter doesn't need "nifty" technologies that work reasonably well in the laboratory but are not battle tested
- ❖ The War Fighter needs proven, tested, battle-ready Phase III technologies and products
- ❖ If the War Fighter's fate depends on SBIR products – whether a computer program in the F/A-18 Super Hornet, towed array on a submarine, night vision goggles or new coating for a firearm – they **must** work

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- ❖ The War Fighter doesn't need a laboratory model – he or she (or “it” – the War Fighting Platform) requires a rugged, proven, tested, ready to go, ready to fire, sure to work, product that on a scale of 1.0 to 10.0 – with 10 being the most ready – scored an 11.0 for readiness

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❖ Large Prime Contractors:

- The fourth player – essential to insertion of Phase III products into DoD missions
- DoD depends on these large Primes to produce and deliver combat-ready products in scale
- DoD tends to buy most of its products directly from large Prime Contractors – and while the Government can buy products directly from the SBC – it generally prefers integration of systems and products by the Prime Contractors

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- ❖ More often than not – DoD purchases products from small firms through prime contractors
- ❖ Two Laws in dealing with Prime Contractors:
 1. **Iron Law I:** The Primes will buy from a small business on the Prime's terms
 - Usually to fulfill a “one-off” need to enhance the Prime's system
 - This usually involves paperwork, legal fees, wrangling over forms, disputes over who owns the new technology and data rights, and unrecoverable costs for the SBC

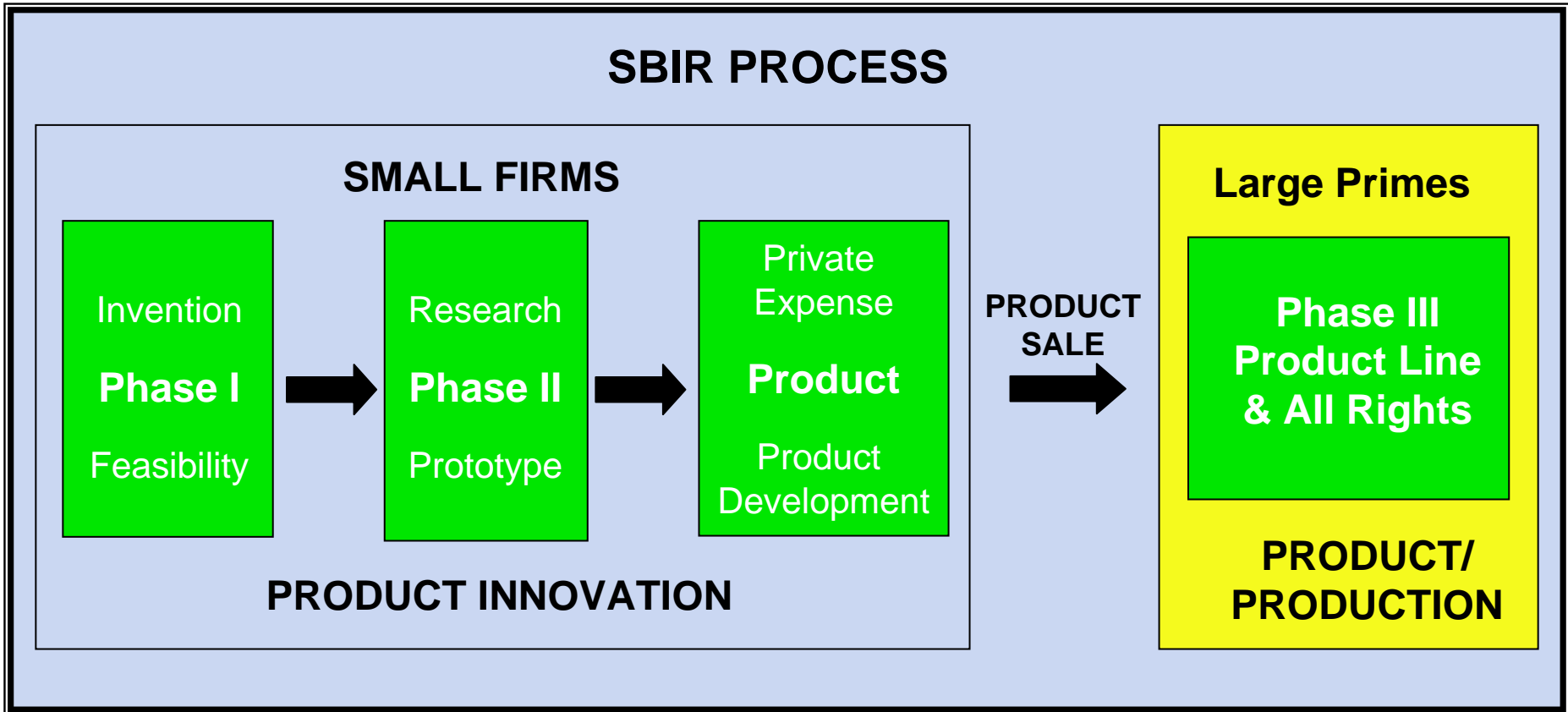
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2. **Iron Law II:** Primes want to market their own products – not those of others
 - Primes do not want to be reduced to the status of a “reseller” of SBC products
 - This is the “Not-Invented-Here” syndrome
- ❖ Thus, SBCs must recognize that not only the Government and the War Fighter greatly influence the future of their SBIR Phase III products and programs – but so do the large Prime Contractors

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- ❖ To succeed and grow the SBIR program, today's SBCs must recognize and account for the critical roles of the War Fighter and large Prime Contractors
- ❖ The question is: How?
- ❖ The Fourth Model represents a new paradigm, a largely overlooked business model, that requires no changes to the SBIR Program and has been in the Directive all along

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- ❖ Under the Fourth Model, the SBC:
 - Develops the innovative technology during Phases I & II
 - Achieves product status, possibly at private expense; and
 - Sells the innovative product to a large Prime Contractor

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- ❖ All rights, patents, ownership, and Phase III benefits pass (by assignment) to large prime as “successor in interest”
 - Prime Contractor markets and produces product meeting Government requirements
 - SBC continues as an independent company to develop other innovative products
 - Existing Phase I or II contracts are novated

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- ❖ This proposed solution to insert Phase III innovations and products into the DoD mission requires mostly “behavioral” changes
 - SBCs, Government and primes need to recognize their appropriate role
 - Each party must adapt its role to make it work
- ❖ Above all, each must recognize that the War Fighter’s unconditional need for dependable products will never change

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- ❖ SBCs need to recognize that:
 - There is a difference between “nifty technologies” that may work in the laboratory, but have not achieved commercial or battle readiness
 - The gap between laboratory and battlefield readiness requires significant investment – possibly private funds
 - Additional Phase I and II awards will not solve this funding gap – additional capital from any source can
 - Real success lies in continued development of innovative products –what SBCs do best
 - SBCs real contribution lies in innovating product lines

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- ❖ Prime Contractors should recognize that they:
 - Are vital SBIR players
 - Don't innovate as well or as fast or as productively as SBCs
 - Have resources, muscle, assembly, manufacturing, engineering and disciplined quality controls for scaled manufacture of innovative products
 - The answer to the "Not-Invented-Here" syndrome is to purchase SBC product lines

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- ❖ Government personnel have to preside over, support, and facilitate this new paradigm for inserting SBIR products into DoD missions
- ❖ The Acquisition and Program offices benefit by giving control of products to Prime Contractors
- ❖ Large primes benefit from the purchase of product lines from SBCs, ownership of products, sale of them under sole source SBIR Phase IIIs to the Government and legitimate preservation of sole source markets to themselves

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- ❖ How and why the Fourth Model works:
 - Phase III definition is very broad – it focuses on the Phase III product, not on the SBIR developer
 - A Phase III is any requirement that “derives from, extends or logically concludes prior Phase III work and is funded with non-SBIR funds”
 - There is no mention of the firm in the definition
 - The Directive expressly allows novation of contracts and successors in interest to SBCs
 - The Directive also suspends the 500 employee size standard for Phase III

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- A Prime Contractor does not need to acquire an SBC to become a successor-in-interest – it can succeed to the SBC's interest in a Phase I, II or III contract by novation [or to an expired Phase I, II or III contract by assignment] and assignment of the assets necessary to produce the product line
- This Model is already in the SBIR Directive
- The large Prime Contractor under this Model inherits all Phase III benefits and advantages

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- ❖ No limit on the number of Phase IIIs
- ❖ No limit on duration of the funding agreement
- ❖ No limit on the type of funding agreement — *i.e.*, grant, contract, cooperative agreement, “other transaction,” or subcontract
- ❖ No limit on dollar value
- ❖ Phase III may be funded by different agency or agencies that funded Phases I or II

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❖ Summary:

- This new paradigm encourages SBCs to keep innovating – this process will not reward well the “one-trick pony”
- The War Fighter needs tested Products – not just “nifty” technologies
- Large firms that purchase a Phase III product can inherit Phase III advantages and make the product their own
- Government personnel need to facilitate this SBIR Phase III insertion process

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