

A photograph of a person wearing a blue button-down shirt, shaking hands with another person whose hand is visible. The background is a blurred American flag. A dark teal semi-circular graphic is overlaid on the right side of the image, containing the title and subtitle text.

GIPP² – Gateway to US

**Strengthening the industrial relationships
between Finland and USA leveraging the
current defense market opportunities**

Accelerating business between Finland and USA

What?

USA – #1 trade partner
USA invests to improve capabilities
Finland provides world class solutions

Why now?

Strengthened US-FIN alliance
China became threat #1
Finland's country image stronger than ever.
USA needs allies to maintain global role

How?

Business-to-Business
Business-to-Government
State partnerships
Support from SixCities
High Level Delegations
Government relations

Reaching beyond Industrial Participation with GIPP²



Critical and Emerging Technologies of Particular Importance to the National Security of USA by The White House

1. Advanced Computing
2. Advanced Engineering Materials
3. Advanced Gas Turbine Engine Technologies
4. Advanced Manufacturing
5. Advanced and Networked Sensing and Signature Management
6. Advanced Nuclear Energy Technologies
7. Artificial Intelligence
8. Autonomous Systems and Robotics
9. Biotechnologies
10. Communication and Networking Technologies
11. Directed Energy
12. Financial Technologies
13. Human-Machine Interfaces
14. Hypersonics
15. Networked Sensors and Sensing
16. Quantum Information Technologies
17. Renewable Energy Generation and Storage
18. Semiconductors and Microelectronics
19. Space Technologies and Systems

Sign of Times: China Competition Bill 2.0

Senate majority leader Chuck Schumer (D-NY) launched a new initiative to maintain US leadership as a superpower

Five policy areas:

1. Limiting the flow of advanced technologies to China
2. Curtailing the flow of investment to China
3. Securing domestic economic investment
4. Commitment to economic allies and maintaining partner alignment
5. Safeguarding our allies' and partners' security and maintaining our strategic alliances

Technology Leadership by Australian Strategic Policy Institute

Table 6: Lead country and technology monopoly risk.

Technology	Lead country	Technology monopoly risk
Advanced materials and manufacturing		
1. Nanoscale materials and manufacturing	China	high
2. Coatings	China	high
3. Smart materials	China	medium
4. Advanced composite materials	China	medium
5. Novel metamaterials	China	medium
6. High-specification machining processes	China	medium
7. Advanced explosives and energetic materials	China	medium
8. Critical minerals extraction and processing	China	low
9. Advanced magnets and superconductors	China	low
10. Advanced protection	China	low
11. Continuous flow chemical synthesis	China	low
12. Additive manufacturing (incl. 3D printing)	China	low

China's global lead extends to 37 out of 44 technologies that ASPI is now tracking

Artificial intelligence, computing and communications		
13. Advanced radiofrequency communications (incl. 5G and 6G)	China	high
14. Advanced optical communications	China	medium
15. Artificial intelligence (AI) algorithms and hardware accelerators	China	medium
16. Distributed ledgers	China	medium
17. Advanced data analytics	China	medium
18. Machine learning (incl. neural networks and deep learning)	China	low
19. Protective cybersecurity technologies	China	low
20. High performance computing	USA	low
21. Advanced integrated circuit design and fabrication	USA	low
22. Natural language processing (incl. speech and text recognition and analysis)	USA	low

Source: <https://www.aspi.org.au/report/critical-technology-tracker>

Energy and environment		
23. Hydrogen and ammonia for power	China	high
24. Supercapacitors	China	high
25. Electric batteries	China	high
26. Photovoltaics	China	medium
27. Nuclear waste management and recycling	China	medium
28. Directed energy technologies	China	medium
29. Biofuels	China	low
30. Nuclear energy	China	low
Quantum		
31. Quantum computing	USA	medium
32. Post-quantum cryptography	China	low
33. Quantum communications (incl. quantum key distribution)	China	low
34. Quantum sensors	China	low

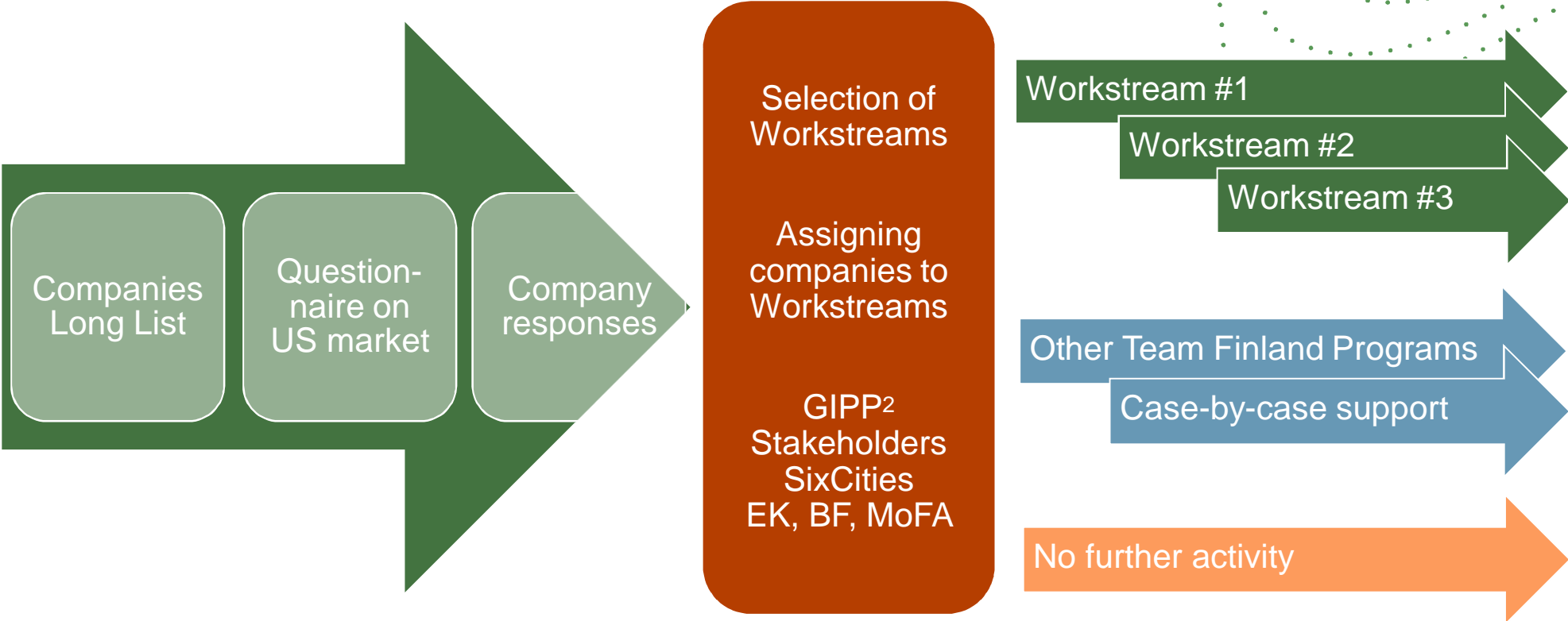
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Biotechnology, gene technology and vaccines		
35. Synthetic biology	China	high
36. Biological manufacturing	China	medium
37. Vaccines and medical countermeasures	USA	medium
Sensing, timing and navigation		
38. Photonic sensors	China	high
Defence, space, robotics and transportation		
39. Advanced aircraft engines (incl. hypersonics)	China	medium
40. Drones, swarming and collaborative robots	China	medium
41. Small satellites	USA	low
42. Autonomous systems operation technology	China	low
43. Advanced robotics	China	low
44. Space launch systems	USA	low

Sanity check: Export Control Reform

- Export control protections are severely slowing down collaboration with allies and like-minded nations
- Export Control reform has increasing support in Capitol as USA is not able to maintain lead position alone
- American companies are increasingly hurt by slow processes
- Lessons from AUKUS Security Pact btw Australia, UK and USA (2021)
 1. Nuclear-powered submarines
 2. Cyber, AI, Quantum technologies
 3. Hypersonic and counter hypersonic
- Buy American and impact on American jobs is working against change
- 12 months before legislators start focusing on elections

Narrowing down to workstreams



Key take-aways

- There is a serious opportunity for world class solutions
- Redefine Defense Industry to include critical technologies
- Business as Usual
- When in Rome, do as the Romans do ... or go home
- Roadblocks are recognized, but don't hold your breath quite yet

Don't confuse competence with enthusiasm, even if they appear similar at times. Both are essential, but not interchangeable.