



2021 POST Conference: Rapid Innovation Fund (RIF) Overview

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Meeting Agenda



- RIF 101
 - Motivation
 - Background
 - Objectives
 - Project Requirements
 - Transition Definitions
 - Process
- RIF FY 2020 National Defense Authorization Act (NDAA) & TechLink Reports
 - FY 2020 NDAA Report & Highlights
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RIF 101

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Motivation - Bridge the “Valley of Death”



- Congressional initiative to bypass institutional acquisition hurdles:
 - Program Objective Memorandum process sets program funding baseline across multiple future years → **Challenging to fund emerging technology**
 - Original requirements are not inclusive of features/performance from emerging technologies
- Response to small business community concerns over insufficient funds to transition research to Programs of Record (PORs)
 - E.g., Small Business Innovation Research/Small Business Technology Transition (SBIR/STTR) Phase I/II to Phase III
- Bridges “valley of death” by providing time and funding to mature technology while programs adjust to integrate
 - Shortens transition time of mature technology
 - Does not negatively impact PORs



RIF Background

- Established as the Defense Research and Development Rapid Innovation Program in Section 1073 of the FY 2011 NDAA
 - Reauthorized in the FY 2017 NDAA as a permanent program
 - Re-designated by the Department of Defense (DoD) as the Defense Rapid Innovation Fund (i.e., the RIF)
- Designed as a competitive, merit-based program to rapidly transition innovative technologies into military systems
 - Projects are drawn from previous SBIR/STTR initiatives, defense laboratory and academia efforts, and other non-traditional sources
 - Efforts directly support critical national security needs, including:
 - General warfighting requirements
 - Reliance 21 Communities of Interest
 - National Defense Strategy: pillars and modernization areas
- Received on average \$250M in appropriations per year to fund approximately 100 projects → **No FY 2020 or FY 2021 appropriations**



RIF Objectives



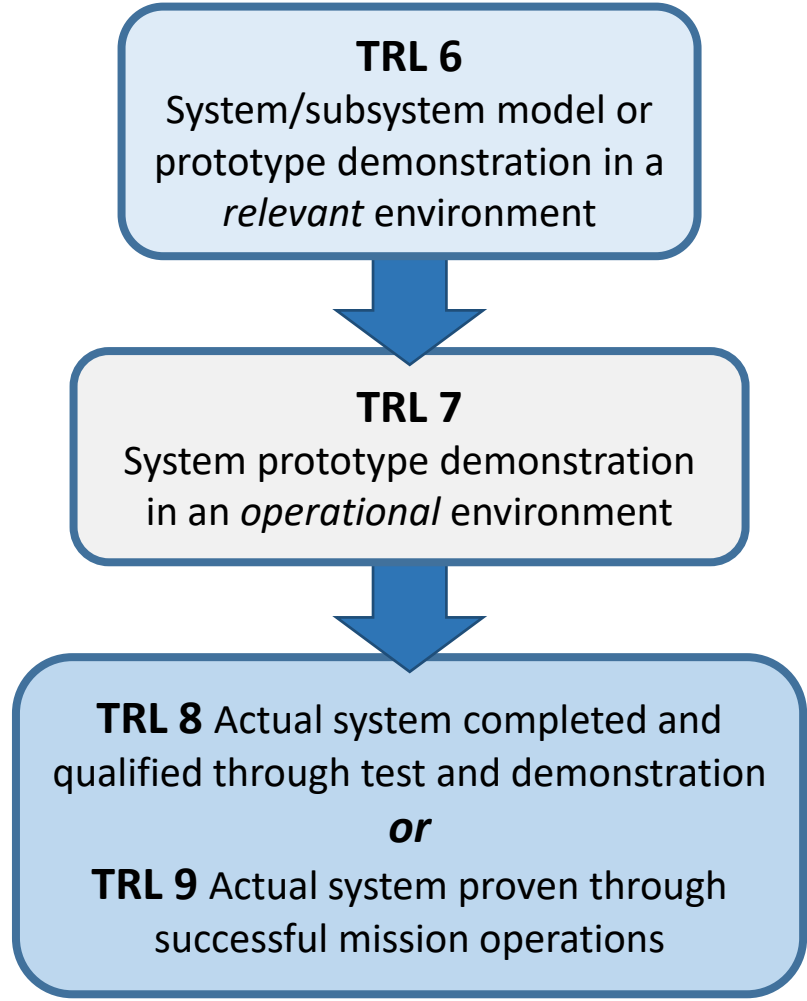
- Accelerate or enhance a military capability
- Reduce development, acquisition, sustainment, or lifecycle costs of defense acquisition programs or fielded systems
- Reduce program technical risk
- Improve the timeliness and thoroughness of test and evaluation (T&E)

Goal: *Rapidly mature and transition innovative technologies for DoD use in response to critical national security needs*



RIF Project Requirements

- Must be eligible to receive Advanced Component Development and Prototypes (Budget Activity 4) Research Development Test and Evaluation funds
- Limited from \$3M to \$6M per project
 - Total funding for higher budget (>\$3M) projects may not exceed 25% of RIF budget
- May not receive more than two fiscal years of funding
- Should complete in 24 months or less
- **Should enter at technology readiness level (TRL) 6 and exit at TRL 8-9**
 - Will consider lower TRL projects if exceptional candidates for transition





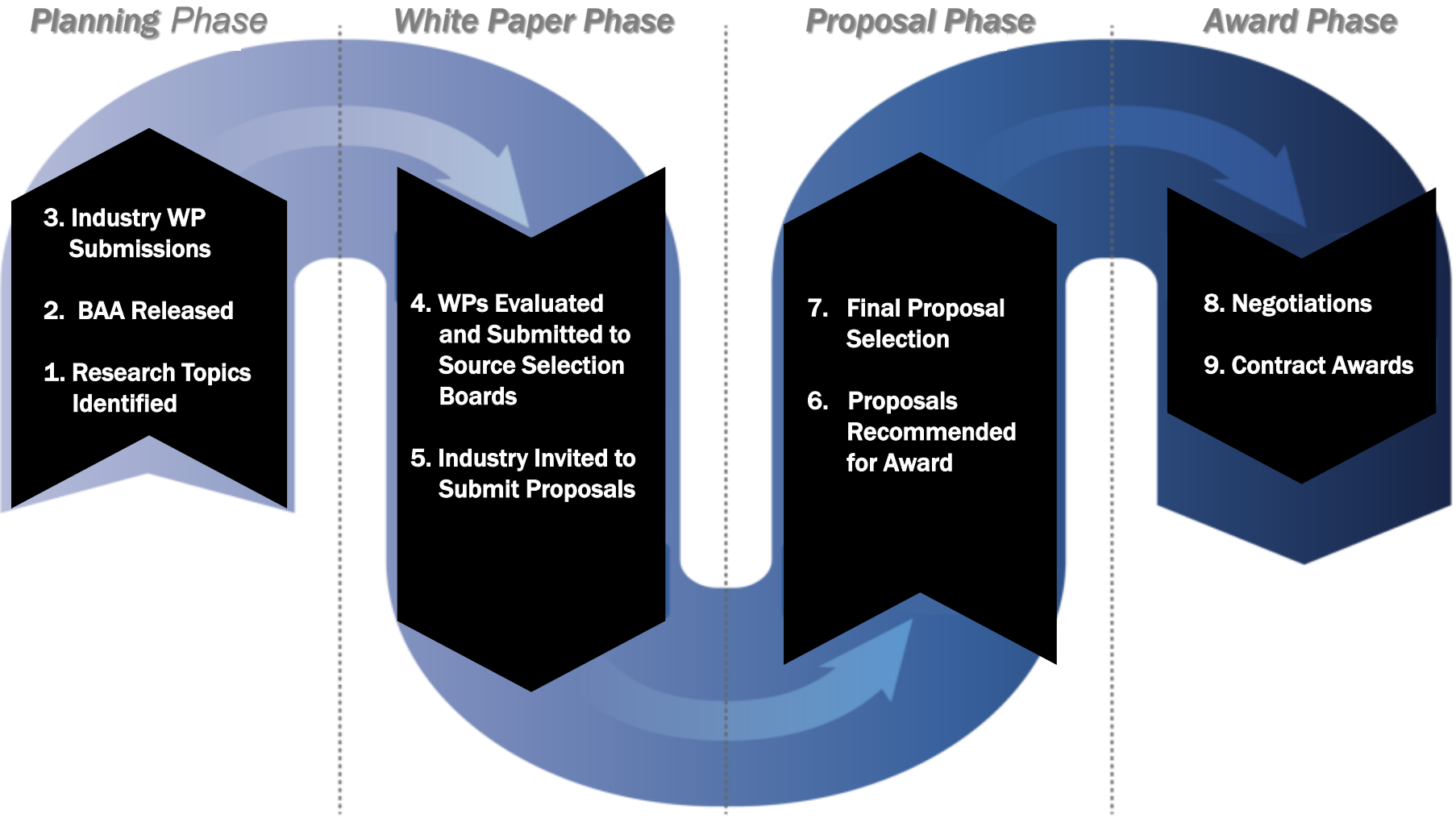
RIF Transition Definitions



1. Technology transitioned to DoD POR
2. Fieldable prototype or operational system deployed to:
 - Defense Organizations
 - Operational Units
 - Combatant Command Areas of Responsibility
3. Outcome of project efforts used to shape requirements documents, reduce POR technological risk, or influence POR product improvement strategies
4. Acquisition of program by other non-DoD Government Organizations



RIF Process





RIF FY 2020 NDAA & TECHLINK REPORTS



FY 2020 NDAA Report – Language

- FY 2020 NDAA Sec. 878 assigned a report, from SecDef to Congress, to outline RIF statistics & assess overall program effectiveness – **Delivered in June 2020**
 - Prior two fiscal year (FY 2017+) activities:
 - Description of total number of proposals funded
 - Funding (%) for SBIR Phase II projects
 - List of SBIR Phase II projects funded by RIF included in major and other defense acquisition programs
 - General assessment of program effectiveness for:
 - Stimulating innovative technologies
 - Reducing acquisition or lifecycle costs
 - Addressing technical risk
 - Improving the timeliness and thoroughness of T&E outcomes
- To supplement its report, the RIF commissioned a participant study from TechLink, a DoD partnership intermediary



TechLink Study & Findings

FY 2011-16 RIF Participant Survey

479 recipients of 670 awards totaling \$1.4B in funding

57%
RIF AWARDS
TRANSITIONED
OR EXPECTED TO
TRANSITION TO
MILITARY USE

**\$2.4
Billion**
SALES OF PRODUCTS
OR SERVICES TO
THE MILITARY

**587 or
88%**
OF RIF AWARDS WERE
TO SMALL BUSINESSES,
TOTTALING \$1.21
BILLION IN FUNDING

**\$410
Million**
SALES OF PRODUCTS
OR SERVICES TO
NON-MILITARY
CUSTOMERS

60%
OR MORE
RIF AWARDS
DERIVED FROM
SBIR/STTRs

96%
STUDY
RESPONSE
RATE

From TechLink, Aug 2020



FY 2020 NDAA Report – RIF FY 2011-2019

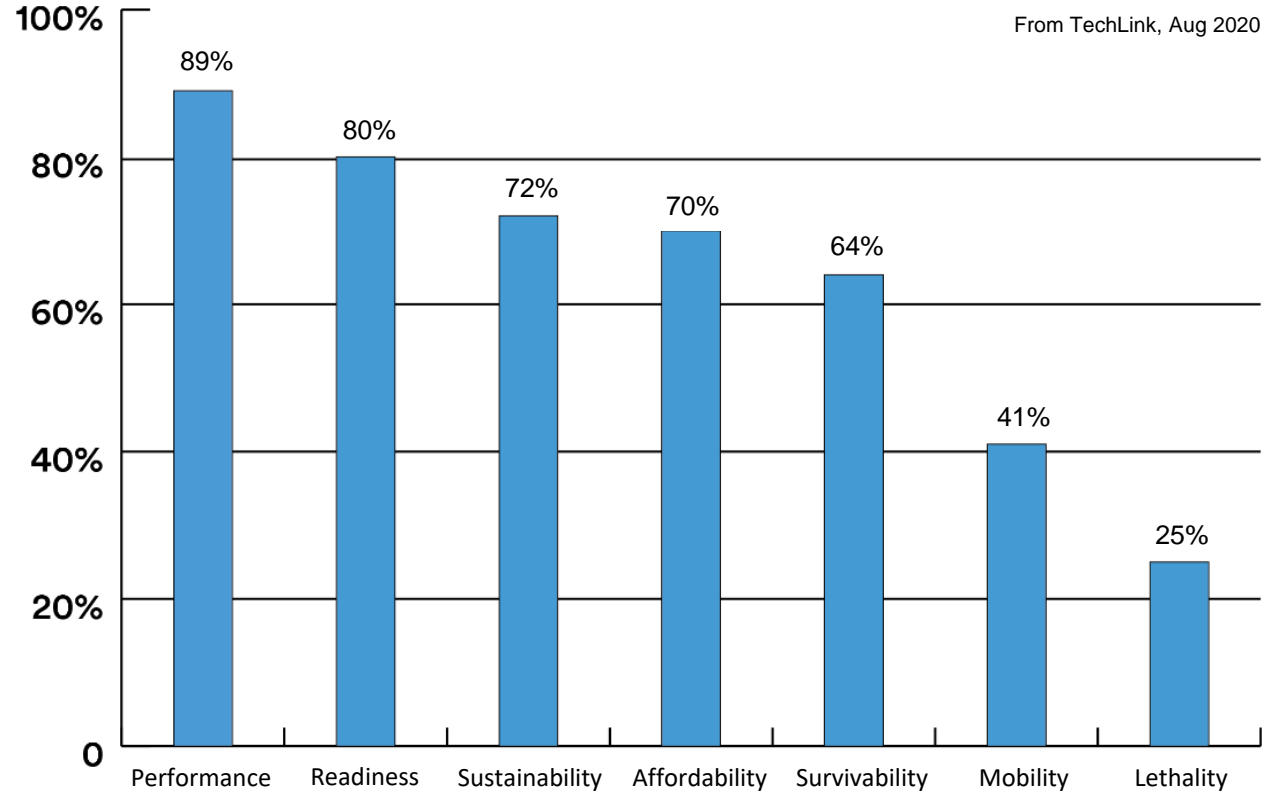


- Over \$2.2B invested in requirements from more than 30 DoD Organizations (including the Military Services)
- 20,500+ white papers, ~1,500 full proposals
- Nearly 1,000 contract awards, averaging \$2.1M each
- Over 100 projects on average annually
- Heavy investment in small business innovation:
 - 843 awards, \$1.76B (85%) total funding to small business
 - 549 awards, \$1.18B (57%) total funding to SBIR/STTR Phase III



FY 2020 NDAA Report – RIF Impacts

Overall Impacts of RIF awards by Category FY 2011-2016



Respondents were able to select more than one option, if applicable.

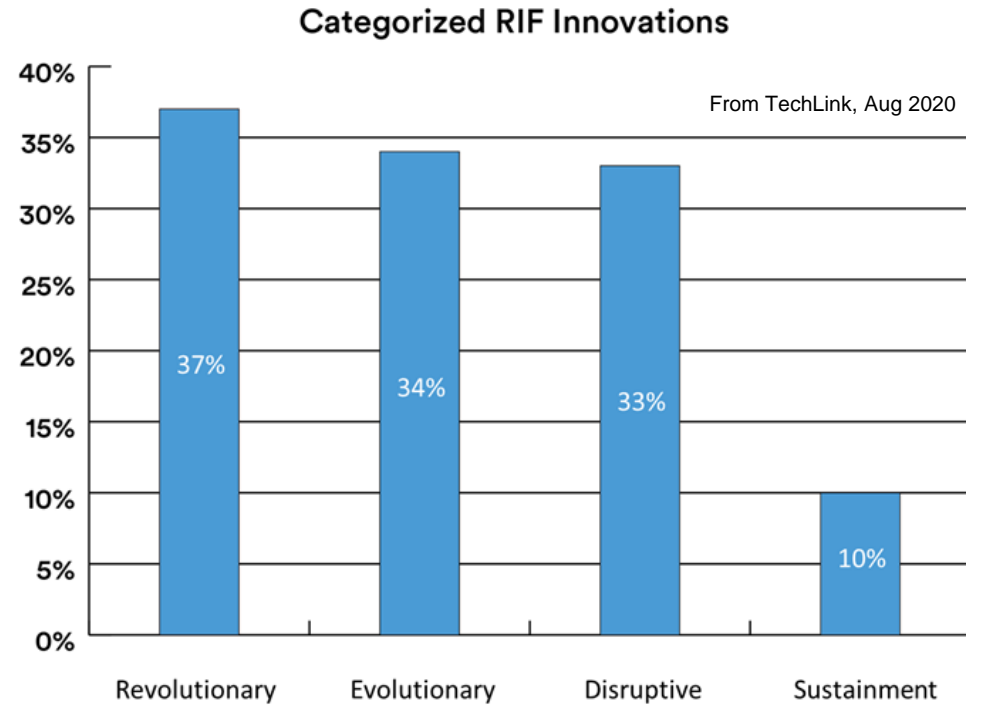


FY 2020 NDAA Report – RIF Assessment



For FY 2011-2016 RIF transitioned technologies:

- Majority qualified in two most innovative categories:
 - **33% disruptive**
 - **37% revolutionary**
- **69% reduced** acquisition and/or lifecycle **costs**
- **79%** addressed and **reduced technical risk**
- **50% improved** timeliness and thoroughness of **T&E**



Respondents were able to select more than one option, if applicable.

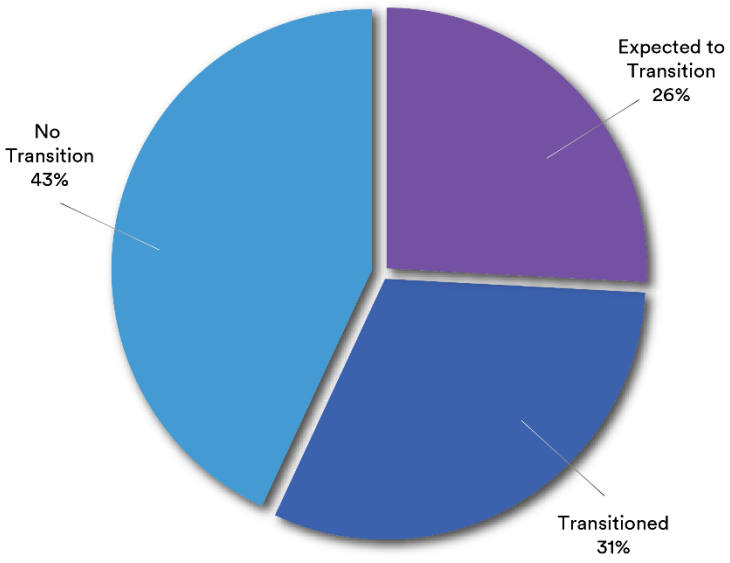


FY 2020 NDAA Report – RIF Transition

Projected >3X return from RIF product transitions to-date

Military and civilian sales: >\$2.8 billion

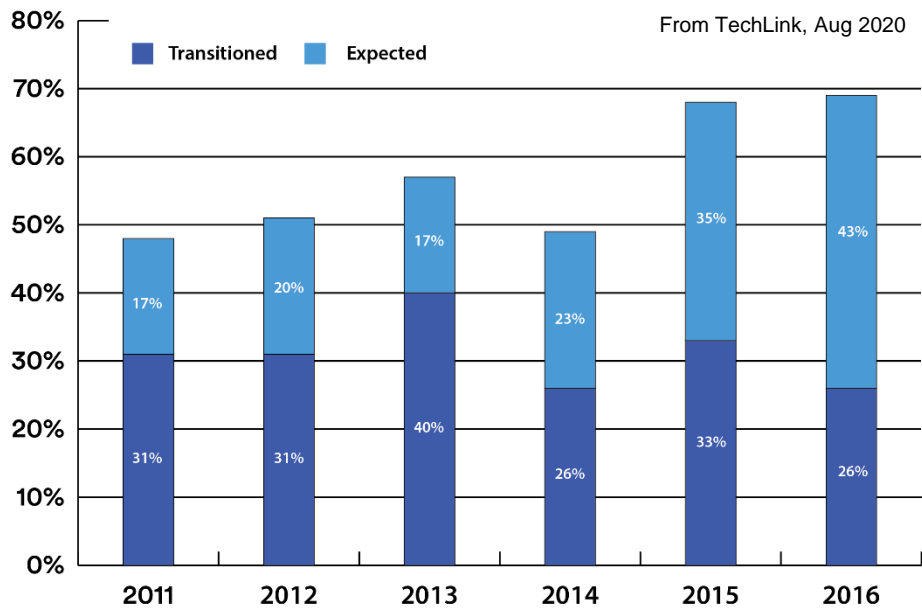
Cost savings: \$4.5 billion



Percentage of RIF awards that have transitioned to U.S. Military use, FY 2011-2016

From TechLink, Aug 2020

Transition Rates by Year, FY 2011-2016



Rate of transition and expected transition, by RIF BAA year

From TechLink, Aug 2020



FUTURE OF RIF



Future of RIF

- Did not receive FY 2020 and 2021 appropriations
- Will continue to support close-out efforts for ongoing projects → ~240 projects currently active
- Will continue to seek path for program reinstatement
 - Impact on FY 2021 legislation was limited due to report submission timelines
 - Opportunity to highlight success for FY 2022+
 - Recent House Armed Services Committee report supports restoration



RIF Resources and Highlight Material

- *Defense Rapid Innovation Fund: An Assessment of RIF Effectiveness FY 2011-2016* (TechLink, 2020)
 - Available through RIF Portal and Defense Innovation Marketplace (Distribution A)

RIF Portal https://www.dodrif.us	Federal Business Opportunities beta.SAM.gov
Defense Innovation Marketplace https://defenseinnovationmarketplace.dtic.mil/business-opportunities/rapid-innovation-fund/	

- “Bring Back the Rapid Innovation Fund” (National Defense, 2020) editorial praised the RIF as a top funding strategy to accelerate critical technology to the Warfighter
 - Available <http://digital.nationaldefensemagazine.org/publication/?m=46185&i=657783&p=24>
- *Future of Defense Task Force Report* (House Armed Services Committee, 2020) identified the RIF as a “critical pathway for relevant late-stage technologies to be funded inside the Department of Defense”
 - Available <https://armedservices.house.gov/2020/9/future-of-defense-task-force-releases-final-report>



RIF Key Points of Contact

OSD – Defense Organizations



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