

The background of the slide is a close-up photograph of numerous fiber optic cables. The cables are illuminated from below, creating a vibrant blue and cyan glow. The light from the cables creates a bokeh effect, with many bright, out-of-focus circular spots scattered across the scene. The overall composition is dynamic and modern, suggesting technology and connectivity.

# U.S. International Development Finance Corporation

*Investing in Development*

# Who We Are

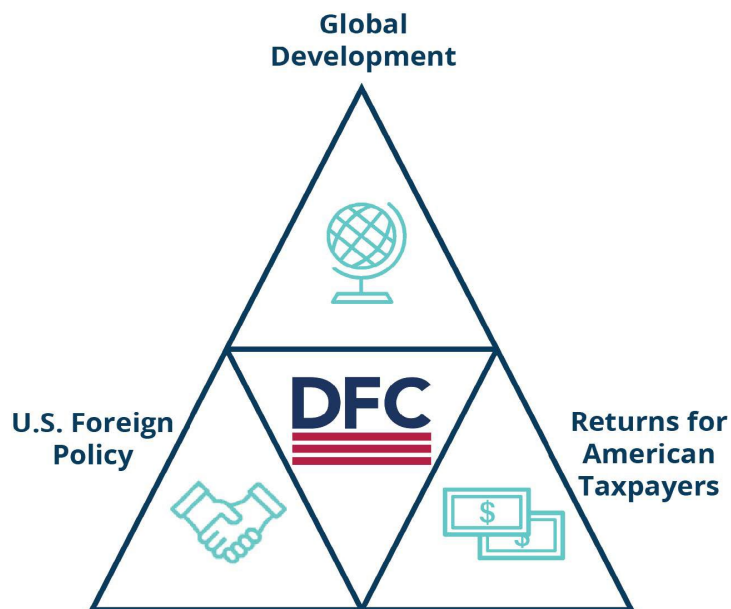
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U.S. International Development Finance Corporation (DFC) is **America's development bank**. DFC partners with the private sector to finance solutions to the **most critical challenges** facing the developing world today.

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# Our Model



## DFC's Triple Aim model has three key components:

- **Development:** We mobilize private sector investment to advance development in emerging economies around the world.
- **Foreign Policy:** We serve as a critical tool of American foreign policy, mobilizing investment in regions of critical strategic importance.
- **Returns:** Our investments generate returns for American taxpayers.

# What We Offer



## Equity Financing

Direct equity and support for investment funds



## Political Risk Insurance

Coverage of up to \$500 million against losses due to currency inconvertibility, government interference, and political violence including terrorism. DFC also offers reinsurance to increase underwriting capacity



## Debt Financing

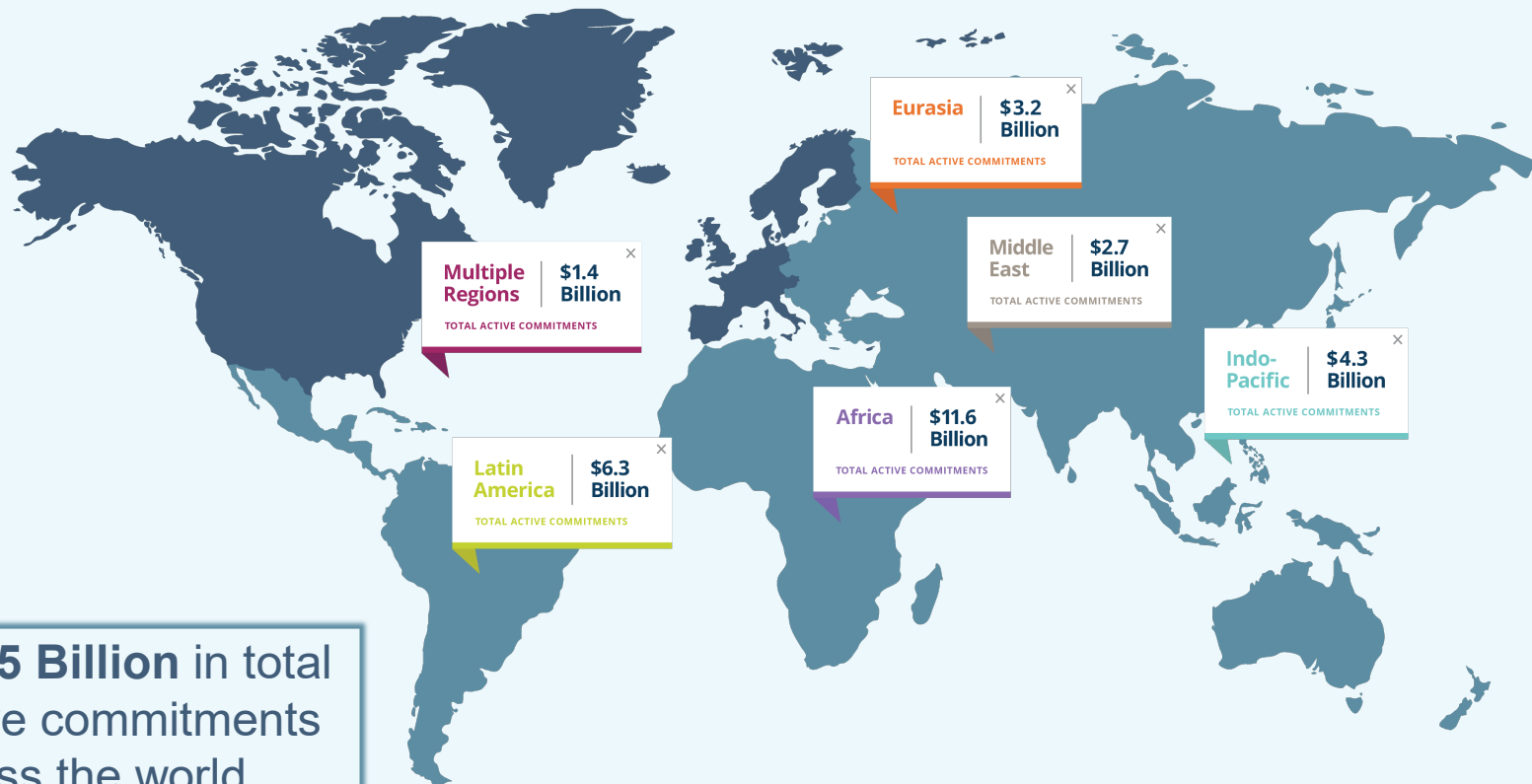
Direct loans and guaranties of up to \$1 billion for tenors as long as 20 years, with specific programs targeting small and medium U.S. businesses



## Technical Development

Feasibility studies and technical assistance accelerate project identification and preparation to better attract and support private investment in development outcomes

# Where We Work



**\$29.5 Billion** in total active commitments across the world

# Investment Priorities



## Energy

Help countries meet the growing demand for energy in remote and developing areas, expand access to renewable energy, and promote energy independence



## Healthcare

Provide ready access to medical professionals, facilities, and lifesaving treatments, as well as promote critical water, sanitation, and hygiene projects



## Critical Infrastructure

Invest in critical infrastructure projects, with a priority on digital infrastructure to include 5G mobile networks, fiber optic networks, and data centers.



## Technology

Connect emerging markets to the world by creating new opportunities for the developing world to leapfrog traditional boundaries



## Financing for Small Businesses and Women Entrepreneurs

Emphasis on investing in women entrepreneurs and small businesses to create jobs and opportunity at the local level that can be reinvested to grow communities

# Make the Internet More Affordable and Accessible

- Finance **digital infrastructure** (MNOs, fiber, data centers, etc.), the backbone of global broadband demand
- Support **new business models** that bring ICT services to underserved communities, including rural last mile.



## Build Secure, Trusted Next Generation Networks

- Finance partners building **trusted networks**, including 'rip and replace'.
- Fund **5G** or **O-RAN** using trusted multi-vendor interconnectivity and interoperability solutions.





# Transaction Examples

## Apollo Towers (Myanmar)



**Project highlight:** \$250 million loan for greenfield telecommunications tower rollout, with the aim of raising mobile network access.

Successful delivery of over 1,800 towers servicing four telecom operators.

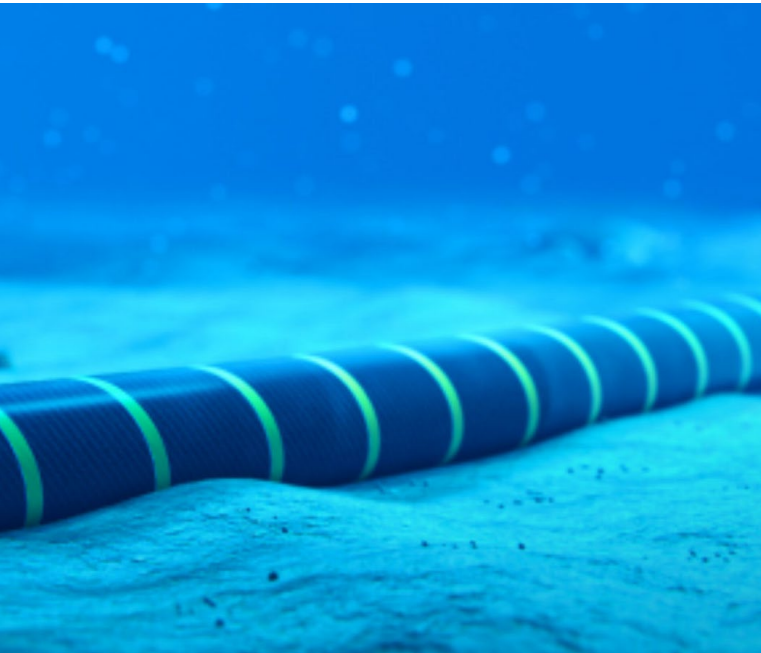
## Africell (Africa Regional)

**Project highlight:** \$100 million loan to invest in cellular networks in DRC, Sierra Leone, The Gambia, and Uganda.

Supported the development of over 120 new towers, as well as upgrades to and expansion of its 2G, 3G and 4G networks.



# Trans Pacific Networks



**Project highlight:** \$190 million loan to support a subsea fiber optic cable between the United States and Singapore, with branches serving Indonesia, Guam, and Palau.

The project is the longest subsea cable in the world (15,200 km).



## Organizations DFC Supports

- Mobile Network Operators
- Internet Service Providers
- Cellular Tower Companies
- Fiber Optic Network Companies (land and subsea)
- Satellite-based Network Providers
- Data Centers
- IT Platforms and e-commerce providers.

# Contacts & Resources

## Contact

Brian Whitesides  
Director, Structured Finance  
[bwhitesides@dfc.gov](mailto:bwhitesides@dfc.gov)

**U.S. International Development  
Finance Corporation (DFC)**

1100 New York Avenue, N.W.  
Washington, D.C. 20527 USA

## Resources

For more information,  
visit [www.dfc.gov](http://www.dfc.gov).



*Reducing Risk. Unleashing Opportunity.*

# Financing tools available through EXIM for U.S. Exporters

**Benjamin Todd**  
Vice President, Global Business Development

**Annie Do**  
Senior Program Advisor, China and Transformational Exports Program (CTEP)



# WHO WE ARE

EXIM is the official export credit agency (ECA) of the United States Government.

**Mission:** Supporting American jobs by facilitating the export of U.S. goods and services.

- › Fills gaps or complements private-sector lender/insurance offerings.
- › Levels the playing field for U.S. companies competing for global sales.

## MINIMUM REQUIREMENTS

- › U.S. based export
- › Foreign buyer
- › Reasonable assurance of repayment





# EXIM's history includes many landmark projects

## 1930s

**1934** The Export-Import Bank of Washington is established to assist in sustaining U.S. employment during the **Great Depression**.

**1938** The Bank approved a \$22 million loan to China supporting U.S. exports to build the **Burma Road**.



**1938** The Bank authorized a \$5.5 million loan to Haiti supporting exports for the improvement of economic conditions.

## 1940s-1960s

**1941** EXIM authorizes financing of U.S. exports for the construction of the **Pan American Highway**.



**1943** EO 9380 transfers the EXIM from the **Office of Economic Warfare** to the **Foreign Economic Administration**

**1945** The Export-Import Bank Act of 1945 establishes EXIM as an independent agency. Lending authority is increased.

**1945** The Bank authorizes more than \$2 billion for **post-World War II reconstruction** in Europe, Asia, and Africa.

**1947** EXIM is designated to administer funds for the Economic Cooperation Administration under the **Marshall Plan**.

**1948** At the **Cold War's** outset, EXIM increased lending to **promote the production of strategic materials**, causing EXIM to open for business in the Middle East, Africa, and Asia.

**1948-1951** EXIM activity in Latin America jumped from 14% to 63% of total disbursements, in response to political events and natural disasters.

**1960** EXIM provided short-term export credit insurance through the Foreign Credit Insurance Agency for the first time, which continued until 1992 when EXIM assumed administration of its insurance products.

**1962** EXIM approved a \$55 million credit to **Portugal** supporting U.S. exports to build Lisbon's Tagus River Bridge, the longest suspension bridge in Europe.



**1968** "The Export-Import Bank of the United States" becomes the agency's official name under P.L. 90-267.

## 1980s-1990s

**1982** EXIM joined other USG agencies and the IMF to provide a \$10b financial package for **Mexico**.

**1984** EXIM launched working capital lender loan guarantee and short-term umbrella policy to support small business exporters.

**1989** EXIM opened in the **former Soviet Union** and for the first time since WWI in Poland and Czechoslovakia.

**1992** The Export Enhancement Act of 1992 directed EXIM to consider potential environmental impacts of projects and provide environmental and social impact assessments where required.

**1998** EXIM provided a \$1b short-term insurance facility to support U.S. exports to South Korea during the **Asian Financial Crisis**.

## 2000s

**2000** EXIM approved a \$300m loan guarantee financing U.S. exports to build the Chad Cameroon pipeline to transport crude oil to the Atlantic Coast.



**2011** EXIM financing for sub-Saharan Africa exceeded \$1b for the first time.

**2012** In the aftermath of the **global financial crisis**, EXIM reaches a historic level of nearly \$35.8b in authorizations, supporting a record \$50b of U.S. exports and an estimated 255,000 American jobs.

# EXIM is the U.S. Government's Official Export Credit Agency



**EXIM offers financial products that benefit companies and governments purchasing U.S. goods and services**

<u>Products</u>	<u>Structures</u>
Short and Medium-Term Insurance	Corporate Finance
Working Capital Guarantees	Project Finance
Medium and Long-Term Loan Guarantees	Sovereign Backed
Long-Term Loans	Asset Backed

# EXIM has three “C’s” that it looks at when evaluating a transaction



<u>C</u> ountry	<p>EXIM must be open in the country.</p> <ul style="list-style-type: none"><li>• <i>We’re <b>open in most markets Globally</b></i></li><li>• <i>Key reference: EXIM’s Country Limitation Schedule (CLS)</i></li></ul>
<u>C</u> ontent	<p>EXIM financing is tied to U.S. procurement</p> <ul style="list-style-type: none"><li>• <i>Most sectors qualify for EXIM support</i></li><li>• <i>Key document: The underlying U.S. supply contract</i></li></ul>
<u>C</u> redit	<p>EXIM counterparties must be bankable</p> <ul style="list-style-type: none"><li>• “Reasonable Assurance of Repayment”</li><li>• Private Sector: Audited Financial Statements</li><li>• Public Sector: MOF Guarantee</li></ul>

# EXIM has several more policy requirements



## ■ Ex-Im Bank Charter

- Reasonable Assurance of Repayment
- Additionality
- Economic-Impact Assessment
- Environmental Regulations
- Exports non-military in nature (military buyers not eligible)



## ■ U.S. Content Policies

- Coverage for Services
- Exporter Certificates



## ■ U.S. MARAD Requirements



## ■ OECD Arrangement

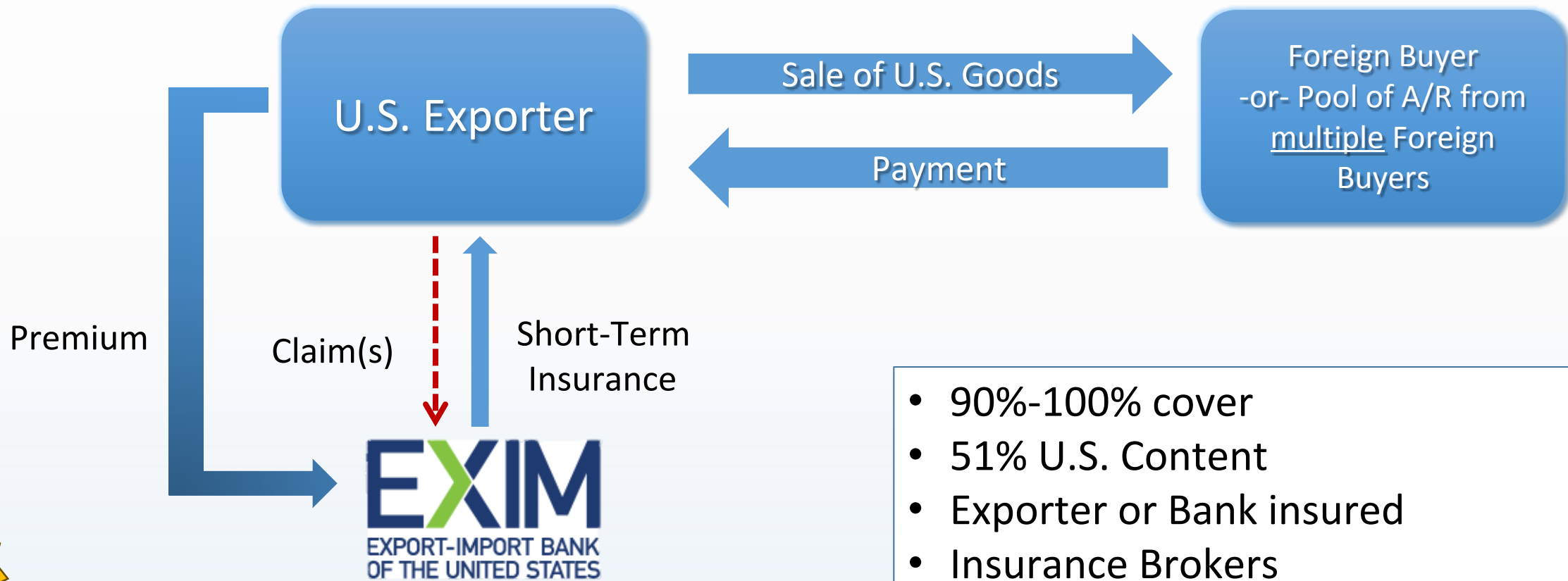
- Maximum Re-Payment Term
- Minimum Exposure Fee



# The 5 c's of credit underpin every transaction

<b><u>C</u>haracter</b>	The reputation of the borrower
<b><u>C</u>apacity</b>	Analytic evidence of repayment ability
<b><u>C</u>apital</b>	Measuring borrower's commitment to the business or project
<b><u>C</u>ollateral</b>	What specific assets may provide value for repayment or recovery
<b><u>C</u>onditions</b>	What is the economic state, industry trends, geographic or political events; use of proceeds

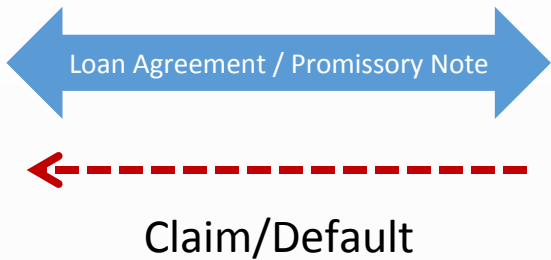
# EXIM can insure a U.S. exporter's short-term sale to clients directly or through a bank



- 90%-100% cover
- 51% U.S. Content
- Exporter or Bank insured
- Insurance Brokers
- Terms vary depending on product, payment terms, and obligor.

- EXIM can also insure a bank's credit to a buyer of US goods and services
- EXIM can also insure L/C's issued by international banks being confirmed/ advised by US Banks.

# Medium and Long-term loan guarantee structure – private bank funds the transaction, EXIM takes the risk

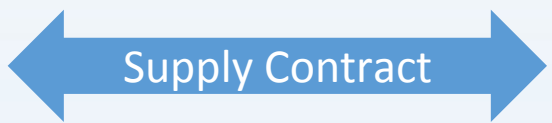


Financial Institution

Loan Agreement



Foreign Buyer



U.S. Exporter

- Up to 85% U.S. Content
- 40%+ Local Costs
- OECD Arrangement
- Master Guarantee Agreement Lenders
- $i = \text{SOFR} + \text{Spread}$
- Foreign Currency
- Tenors determined by the underlying transaction – can be up to 22 years



- EXIM does have a Direct Loan Option
- Flexibilities on China Competition and Transformational Exports

# EXIM has a strong history and is mandated to support U.S. exports



## EXIM has:

... decades of experience supporting projects, companies, and governments globally.

... enhanced tools to support the green economy transition, Chinese Competition, Transformational Exports – including 22-year repayment terms.

... the will to match Chinese terms to level the playing field

... the balance sheet and risk appetite to support bankable projects in global markets.



# CHINA AND TRANSFORMATIONAL EXPORTS PROGRAM (CTEP)

**Purpose:** 2019 Congressional mandate directing EXIM to support the extensions of loans, guarantees, and insurance at rates and on terms that are fully competitive, to the extent practicable, with those provided by China, in order to:

**Directly neutralize** competing subsidies provided by China through official export credit, tied aid or blended finance, or

**Advance the comparative leadership** of the U.S. with respect to China in strategic areas (see below)

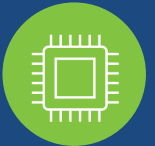
- AI • Biotech • Biomedical • Wireless Communications • Quantum Computing
- Renewable Energy, Storage, & Energy Efficiency • Semiconductors • Fintech
- Water Treatment & Sanitation • High Performance Computing

# CTEP (CONTINUED)

## MANDATE'S PURPOSE



Ensure the foreign buyer makes their decision on the quality of the good and/or service rather than on the financing that supports the deal



Increase Exports in 10 transformational export areas



Reserve no less than \$27 billion lending capacity for CTEP

## BENEFITS



FLEXIBLE RATES, TERMS, & CONDITIONS



COUNTRY LIMITATION SCHEDULE EXCEPTIONS



TAILORED CONTENT POLICY

# 5G FINANCING



Priority for EXIM and the USG



Trusted Vendors, regardless of HQ location



Financing Deals from the millions to billions of dollars



# CASE STUDY: 5G IN COSTA RICA

- In June 2023, EXIM approved a **preliminary commitment** to demonstrate EXIM's willingness to finance a \$300 million credit to the Government of Costa Rica's Instituto Costarricense de Electricidad & Subsidiaries (ICE) for procuring equipment and supporting materials and services from trusted vendors to deploy a fifth generation (5G) network across Costa Rica.
- A preliminary commitment is a non-binding offer of EXIM financing, subject to the award of the export contract and EXIM's additional review of an application for a final commitment.
- CTEP supported the use of the December 2020 transformational export area content policy, as clarified by the Board in January 2023 for 5G transactions.

# CASE STUDY: SUN AFRICA

- In June 2023, EXIM approved a \$907 million **direct loan** to the Ministry of Energy and Water of the Republic of Angola to support the construction of two photovoltaic (PV) solar energy power plants in Angola.
- The project will generate more than 500 MW of renewable power; provide access to clean energy resources across Angola; help Angola meet its climate commitments; and support exports of U.S. solar panel mounting systems, connectors, switches, sensors, and other equipment.
- A CTEP Determination qualified the transaction for a 95% financed amount and a 5% cash payment (vice the normal 85% financed amount and 15% cash payment).

# Thank You

## For more information contact:

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**EXIM**  
EXPORT-IMPORT BANK  
OF THE UNITED STATES



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# NTIA's Public Wireless Supply Chain Innovation Fund

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Digital Dialogue Webinar: US Government Financing for  
Telecom Infrastructure Development  
July 17, 2024





# The Public Wireless Supply Chain Innovation Fund

## What is the Innovation Fund?

The Innovation Fund is a **ten-year, \$1.5 billion grant program, focused on advancing open wireless network technologies**. Funded through the CHIPS and Science Act of 2022, the Innovation Fund will make major wireless investments as part of the Biden-Harris Administration’s “Investing in America” agenda.

## Why Invest in Open Radio Access Networks (RAN)?

The 5G equipment market is static and dominated by a few providers. Open RAN can disrupt this market concentration with its interoperability, which will making it easier for new suppliers to enter the market. **By transitioning to Open RAN, the U.S. and partner countries can help the wireless ecosystem flourish for 5G and beyond.**

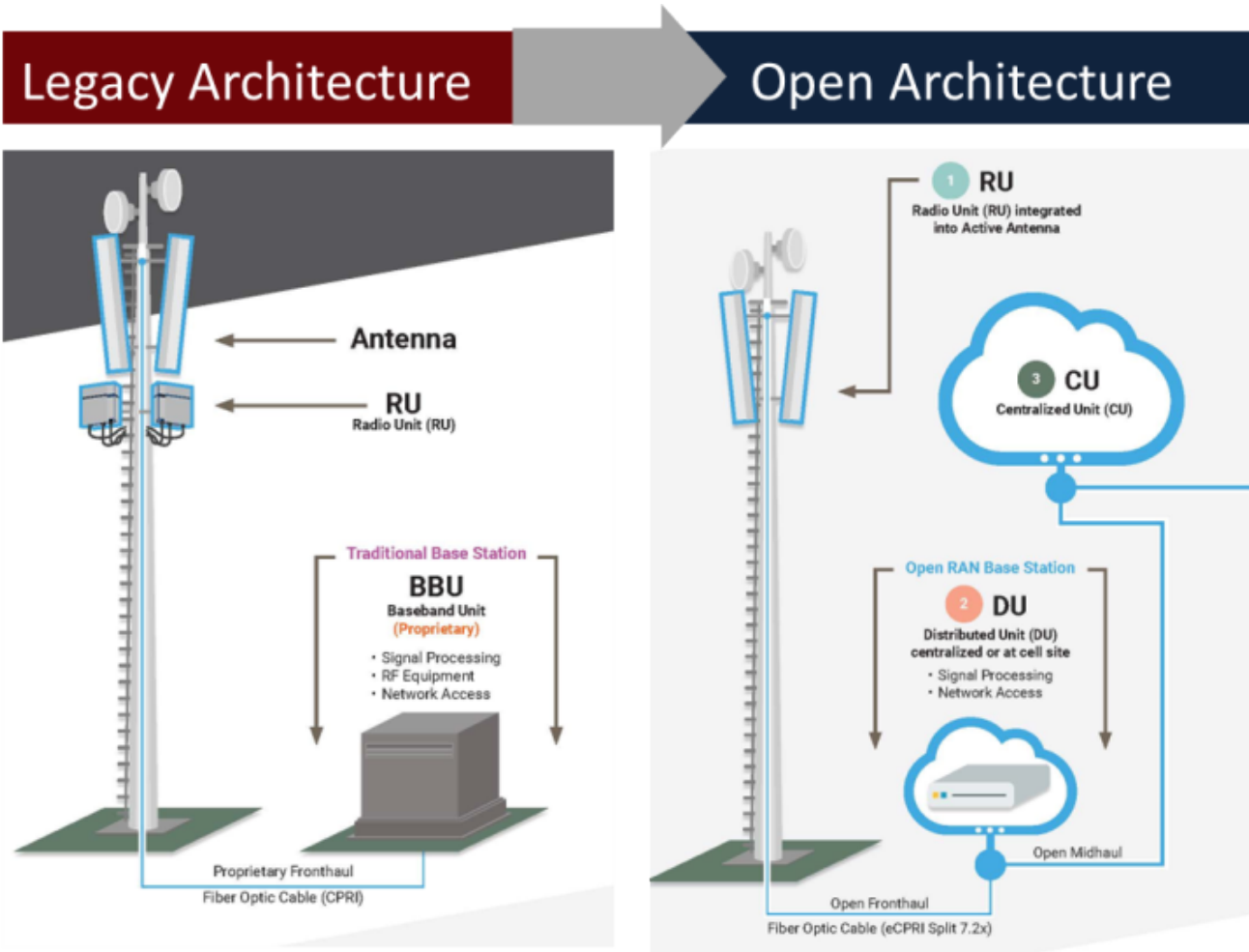
## What will the Innovation Fund Accomplish?

- **Promote** 5G+ technologies that are secure, open, and virtualized.
- **Advance** the deployment of open and interoperable equipment.
- **Support** the integration of networks with multiple brands of equipment.
- **Identify** criteria to decide if equipment follows open standards.





# Open RAN's Potential



Source: Open RAN Policy Coalition

## A shift to Open RAN adoption:

- Enables innovation and competition
- Reduces costs for consumers and operators
- Bolsters security/supply chain resilience

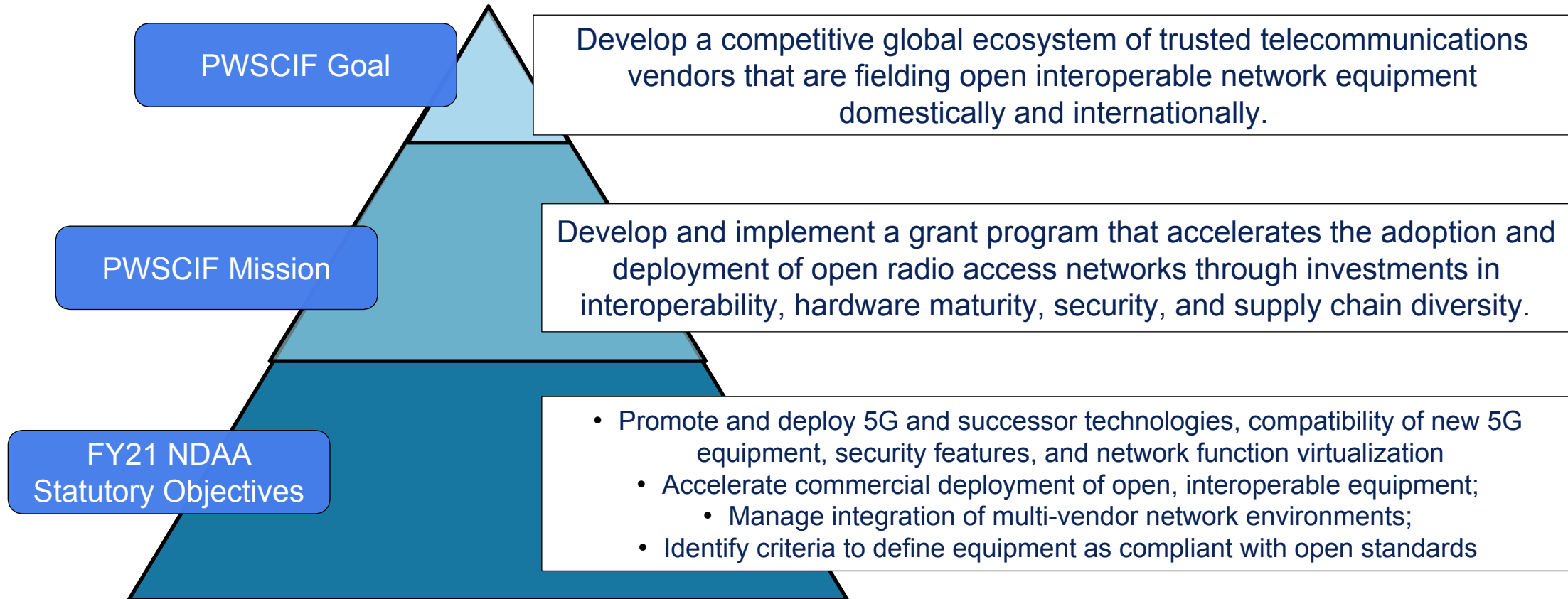
## Open RAN is still relatively new and deployment at scale is challenging. Some of the challenges include:

- Immature standards and specifications
- Limited commercial adoption
- Limited vendor ecosystem/capacity

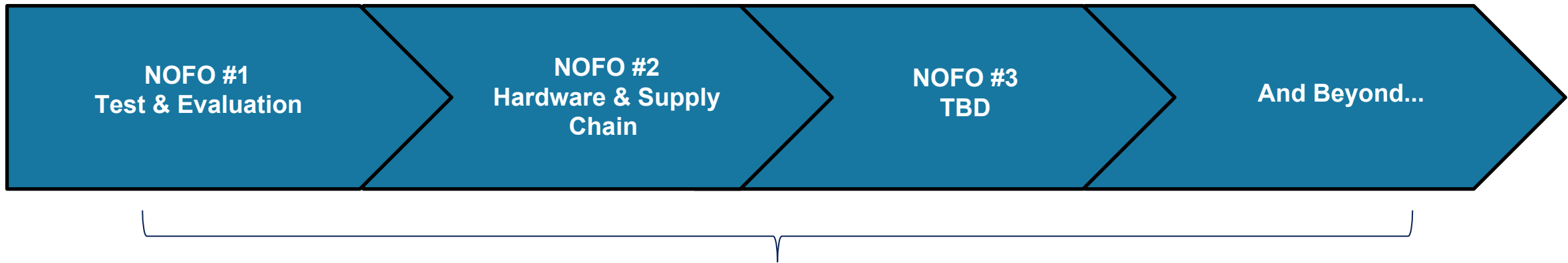




# PWSCIF Program Vision and Goals



# Innovation Fund Approach



**Minimum Viable Profile: Industry-led effort to develop baseline specification that enables rapid system level validation of open & interoperable networks.**

We released NOFO 2 on May 7, 2024 and applications are due today, July 17, 2024.



# NOFO #1 Snapshot



## Funding Areas

- **Testing & Evaluation Facilities:** Making industry-accepted testing assessment for open wireless equipment more accessible throughout the United States. Access to affordable T&E is important to make the market more inclusive to new players and competitive.
- **Research & Development:** Promoting the development of new and/or improved testing methodologies, which will ensure that testing better prepares 5G open network technology for real-world deployments.

## The Why

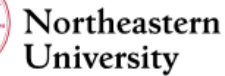
- 76% of respondents to the Fund's request for comment highlighted **interoperability testing as an investment priority.**
- The costs and logistical challenges of testing create real barriers for emerging wireless players. By investing in new testing infrastructure and methods, **the Fund can reduce barriers and increase competition.**



# NOFO #1 Overview



**\$140,443,216**  
INVESTED IN **17** GRANTEES





# NOFO #1 Grantees

Testing & Evaluation					
<b>\$50,000,000</b> DISH Wireless, Fujitsu, Mavenir, and VMware		<b>\$21,714,112</b> VIAVI Solutions		<b>\$42,299,693</b> AT&T, Verizon, NTT Docomo, and Reliance Jio	
Automation				Energy Efficiency	
<b>\$1,989,783</b> Northeastern University	<b>\$1,989,773</b> Northeastern University	<b>\$1,731,182</b> Michigan State University	<b>\$1,996,592</b> Northeastern University	<b>\$1,964,462</b> Open Networking Foundation	<b>\$1,943,101</b> Rice University
Security / Cybersecurity					
<b>\$1,322,825</b> Mississippi State University		<b>\$1,991,300</b> Booz Allen Hamilton		<b>\$2,000,000</b> Virginia Tech	
Improved Testing Methods - Radio		Improved Testing Methods – Equipment/Software		Improved Testing Methods – Network Functions	
<b>\$2,000,000</b> New York University	<b>\$1,492,269</b> DeepSig Inc	<b>\$1,999,984</b> PhasorLab		<b>\$2,000,000</b> Virginia Tech	<b>\$1,999,140</b> Cirrus360





## Overview

- This 2<sup>nd</sup> Notice of Funding Opportunity (NOFO) invests in open **radio unit (RU)** commercialization and innovation. It is comprised of two *specific research focus areas* (“SRFA”):

### SRFA 1 – Open RU Commercialization

- **Funding Range:** \$25,000,000-\$45,000,000.
- **Period of Performance:** 18-24 months.
- **Place of Performance:** RU development **must** be performed in the U.S. Testing for verification, validation, and demonstration may be performed outside of the U.S.
- **10% minimum cost share requirement.** Applications with 16% or more cost share will receive favorable weighting during Programmatic Review.
- **All applicants must** include a Letter of Partnership Intent with a Mobile Network Operator (MNO).
- **U.S. and international entities are eligible**, but either the applicant, an MNO partner, or both must hold Ultimate Beneficial Ownership (UBO) in the U.S., its territories, and possessions.

### SRFA 2 – Open RU Innovation

- **Funding Range:** \$5,000,000-\$10,000,000.
- **Period of Performance:** 3-5 years.
- **Place of Performance:** All activities **must** occur in the U.S., its territories, and possessions.
- **No cost share** requirement.
- **No** partnership requirement.
- **U.S. and international** entities are eligible. Applicants may be based in the U.S. or abroad and are not required to hold UBO in the U.S., but place of performance requirements still apply.

## Key Objectives

**SRFA 1 – Open RU Commercialization:** Accelerate the development of open RU products to the point where they meet carrier needs and are ready for commercial trials.

**SRFA 2 – Open RU Innovation:** Improve the overall performance and capabilities of open RUs through targeted research and development.

*For more detailed information please visit:* <https://www.ntia.gov/program/innovation-fund/grant-programs/round-2-2024>





# Final Thoughts

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- Innovation fund is leveraging investments to energize a global ecosystem of trusted telecommunications suppliers
- Industry involvement and investment is essential to the success of this Initiative
- Significant funding opportunities in the coming months and we encourage your participation
- Question or comments please reach out to **[innovationfund@ntia.gov](mailto:innovationfund@ntia.gov)**







# QUESTIONS?

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**Richard Upchurch**

Policy Director, Public Wireless Supply Chain Innovation Fund





U.S. TRADE AND DEVELOPMENT AGENCY

**Gökçe Tuncer, Country  
Representative, Türkiye**

Ankara, Türkiye

**July 17, 2024**

# Mission

Sustainable  
infrastructure in  
emerging economies



# USTDA'S Tools

## Project Preparation

- Feasibility Studies
- Technical Assistance
- Pilot Projects
- Front-End Engineering and Design

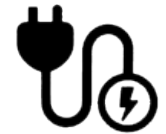
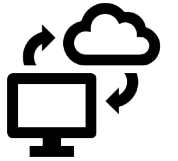
## Partnership Building

- Reverse Trade Missions
- Conferences
- Workshops

# Project development tools

[ustda.gov/work](https://ustda.gov/work)

- USTDA provides **grant funding for project preparation and capacity building activities** that support infrastructure development and promote technical and commercial cooperation with partner countries.
- Overseas public or private sector entities and U.S. companies are invited to share project concepts for USTDA funding consideration.
- USTDA prioritizes projects with strong potential to catalyze the sale of U.S. technologies and services.
- USTDA grants are used to fund customized project development and technical assistance activities, including but not limited to:
  - **Feasibility studies**
  - **Master plans**
  - **Technical assistance**
  - **Pilot projects**
  - **Engineering and design**
  - **Training and capacity building**



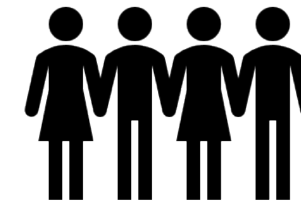
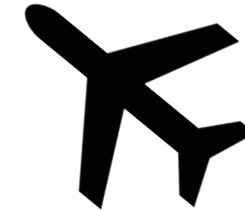
**USTDA**

U.S. TRADE AND DEVELOPMENT AGENCY

# Partnership building tools

- USTDA's partnership building tools **promote technical and commercial cooperation** with partner countries.
- These event-driven activities include:
  - **Reverse Trade Missions (RTMs)** bring public and private sector decision makers to the United States to learn about U.S. technology and services, industry best practices, and resources to support infrastructure development.
  - **Conferences & technical workshops**

[ustrda.gov/events](https://ustrda.gov/events)



# Submit grant concepts to USTDA

## Key criteria:

1. Positive development impact
2. Financial and economic viability
3. U.S. export potential

## U.S. contractor selection options:

- Competed
- Sole-Source

## Grant amount:

- No set limit
- Average \$500,000 - \$1,500,000

## Project sponsors:

- Government
- State-owned enterprise
- Private sector

## Proposals:

- Visit USTDA's website for more info: [ustda.gov/work/propose-a-project](https://ustda.gov/work/propose-a-project)
- Contact USTDA for initial discussion
- Submit concept note

# Priority Sectors



Clean  
Energy



Digital Infrastructure



Transportation



Healthcare Infrastructure





U.S. TRADE AND DEVELOPMENT AGENCY

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