MILLENNIUM
CHALLENGE CORPORATION
UNITED STATES OF AMERICA

Innovation and Technology Program

Finance, Investment, & Trade – June 16, 2020

The Innovation and Technology Program (ITP) will strengthen innovation and technology in partner countries, while promoting business-centric solutions

ITP unlocks world-class American technologies for MCC partners by identifying evidence-validated innovations and helping partner country governments and the private sector scale and sustain them. MCC is positioned to take smart risk with proven high-impact technologies.

- Leverage MCC's experience and global role to create innovation platforms
- Promote U.S. best practices, innovations, and technological developments by providing a pathway to commercialization and scale for proven solutions
- Provide early stage grant funding to ventures that want to adapt proven innovations and business models with the potential to reduce poverty

MCC has an opportunity to leverage the power of small American businesses for development through a partnership with the SBIR/STTR

SBIR · STTR
America's Seed Fund

Small Business Innovation Research (SBIR)

Catalyzes tech innovation by increasing the participation of small companies in federal R&D projects, increases commercialization of tech derived from federal R&D, and fosters participation by disadvantaged groups

Small Business Technology Transfer (STTR)

Catalyzes cooperative R&D and technology transfer, through funding for research proposals from small business-scientist partnerships, which meet the requirements of the federal funding agency

MCC has an opportunity to leverage the power of small American businesses in the United States through partnerships with the SBIR/STTR

Increase Participation in Compacts

MCC can source and catalyze technologies by U.S. innovators looking to adapt proven inventions and business models that have the potential to reduce poverty in our partner countries

Strengthen MCC Investment Impacts

Technological innovations are key elements of development and catchup in low and lower-middle income countries. Market-based solutions have significant potential to rapidly address development challenges

Drive Sustainability

Entrepreneurs and enterprises are key drivers of economic growth and job creation, as well as forming a large part of the innovation landscape in developing countries

Make MCC a Conduit

MCC Compacts represent a conduit where federally funded U.S. innovations and technologies can find partnerships. The ITP can increase capacity and investment flows, creating new opportunities to foster innovations with development impact.

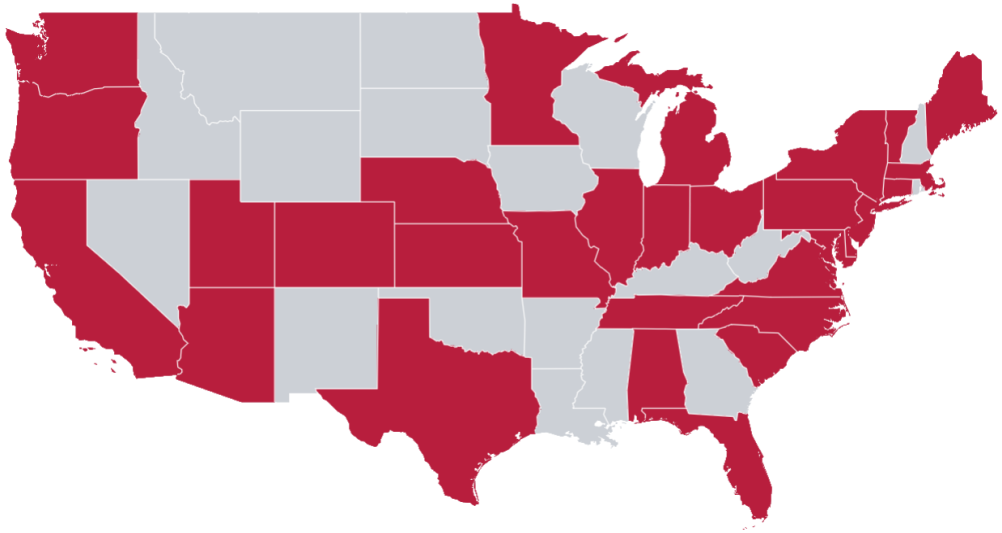
Many USG agencies have partnerships with the SBIR/STTR, and the SBIR/STTR selection process is designed to be complementary

Agencies with SBIR & STTR Partnerships

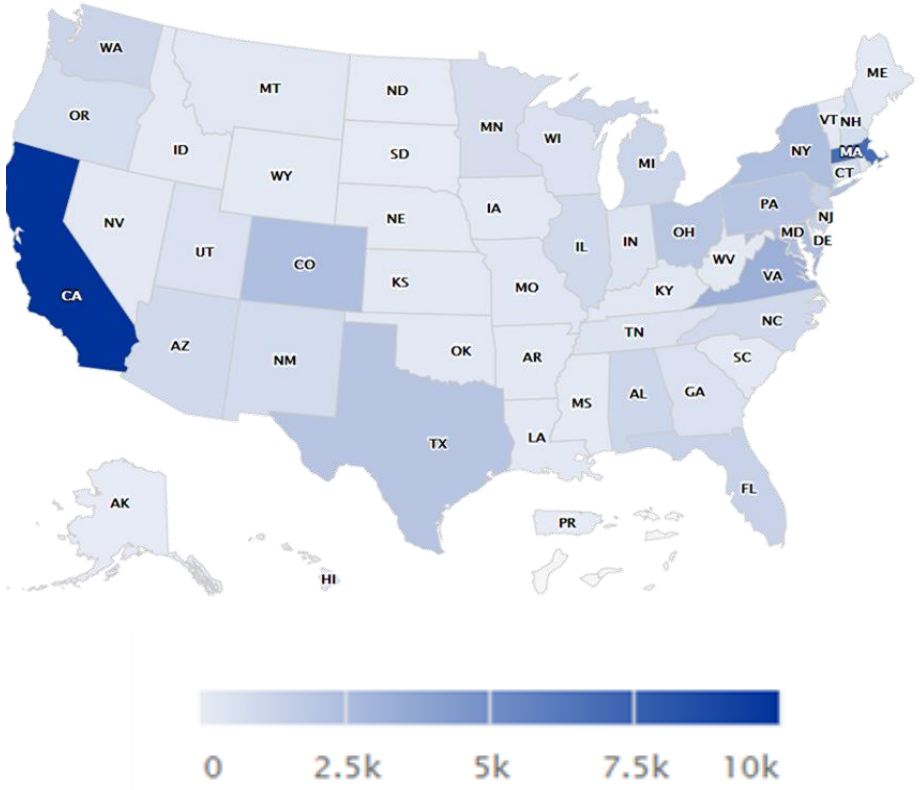
- Department of Agriculture (USDA)
- Department of Commerce (DoC) NIST, NOAA
- Department of Defense (DoD)
- Department of Education (ED)
- Department of Energy (DOE)
- Department of Health and Human Services (HHS)
- Department of Homeland Security (DHS)
- Department of Transportation (DOT)
- Environmental Protection Agency (EPA)
- National Aeronautics and Space Administration (NASA)
- National Science Foundation (NSF)

With over 50,000 potential partners, the ITP will allow MCC to expand US business partnerships to new states, while solving pressing global challenges

MCC's Work with US Businesses (June 2020)



MCC Potential SBIR/STTR Partners by State (June 2020)



This potential partner map represents over 50,000 new technologies that can be adapted for developing country contexts, as well as multiple opportunities to create a whole of USG approach by strengthening collaboration between U.S. agencies.

While these businesses are small, the technological innovations they produce are advanced, with potential to be transformative in MCC Compacts

DoT

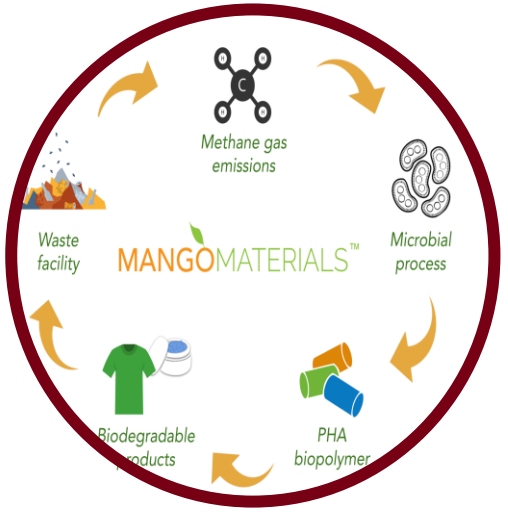
Solar roadways

USDA

Drip irrigation

USDA

Synthetic indigo production



NASA NSF

Methane produced biopolymer

DoE

Smart hydro

While these businesses are small, the technological innovations they produce are advanced, with potential to be transformative in MCC Compacts

Altaeros

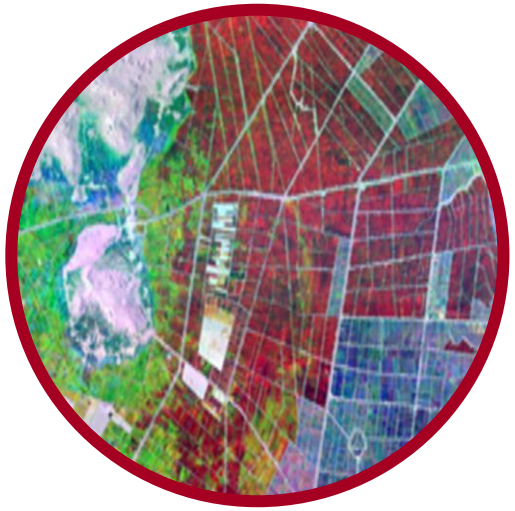
Cost effective, tethered airborne platform

Cambrian

Innovative wastewater treatment technology

Resensys

Low power structural monitoring solutions (bridges, etc.)



Applied Geo

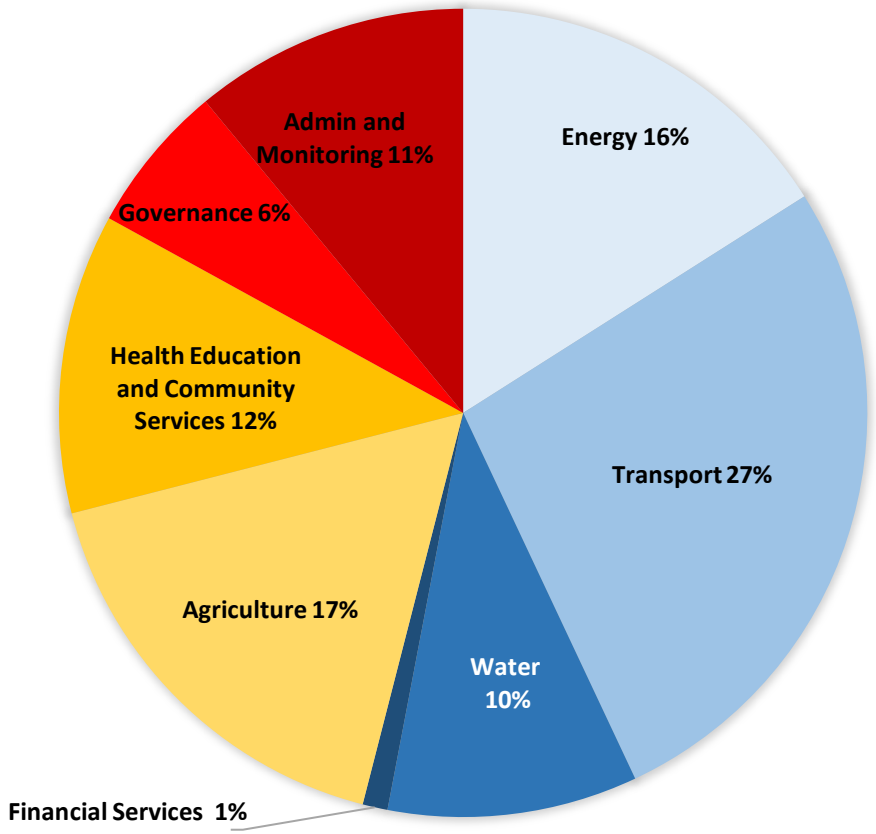
Customized tools using biogeochemical modeling, remote sensing, and GIS mapping

Teachley

Education apps for needstrong visual support

The ITP can leverage ongoing MCC investments by matching areas of overlap between US technology competence and top MCC investment areas

MCC Investment Distribution



Opportunities

Sectors

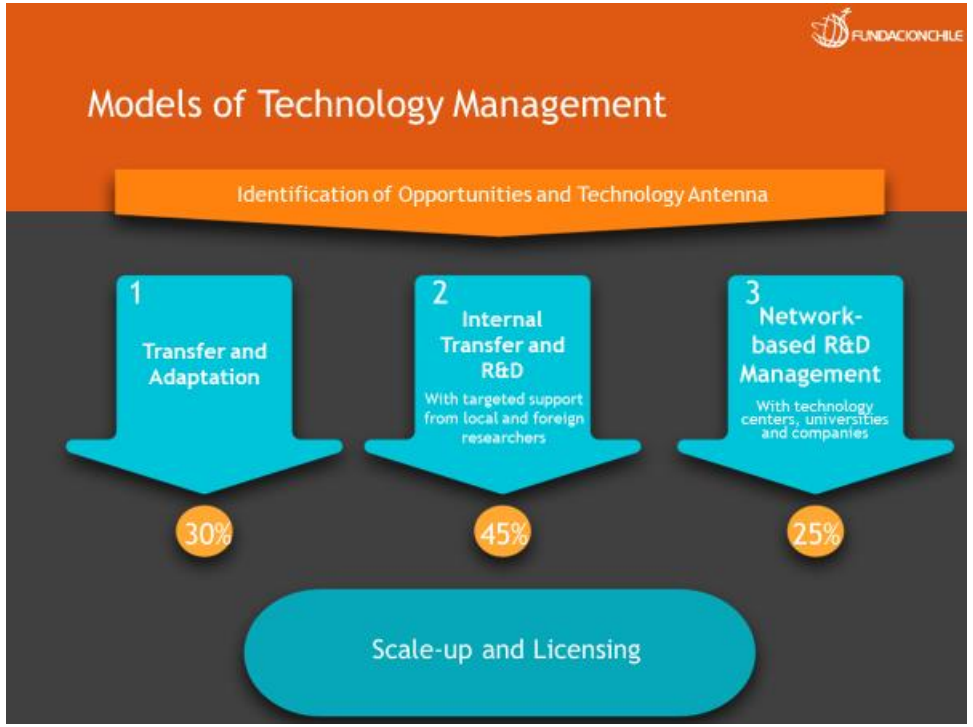
Water & Sanitation: Water treatment, filtering, recycling, reclamation, wastewater reuse and desalination solutions with R/C command. Water plants/networks, smart management, adaptive water pressure control; real time/near real time water quality and wastewater quality monitoring.

Renewable Energy: PV solar plans (smart optimizers, controls, monitoring, maintaining and storage), mobile storage solutions (flywheels or advance batteries/super capacity/fuel cells packs), heat & electric power solutions based on fuel cell technologies.

Resiliency, Infrastructure, and Environmental: Safety of food and water supplies, remote healthcare solutions (including mobile clinic, disasters and ER help centers), remediation, and infrastructure resiliency.

Agri-tech: Agriculture in arid and semi-arid regions; advanced irrigation methods and technologies, livestock management, herd planning, and precision agriculture technologies.

Fundación Chile provides a clear example of how to support the development and dissemination of new technologies

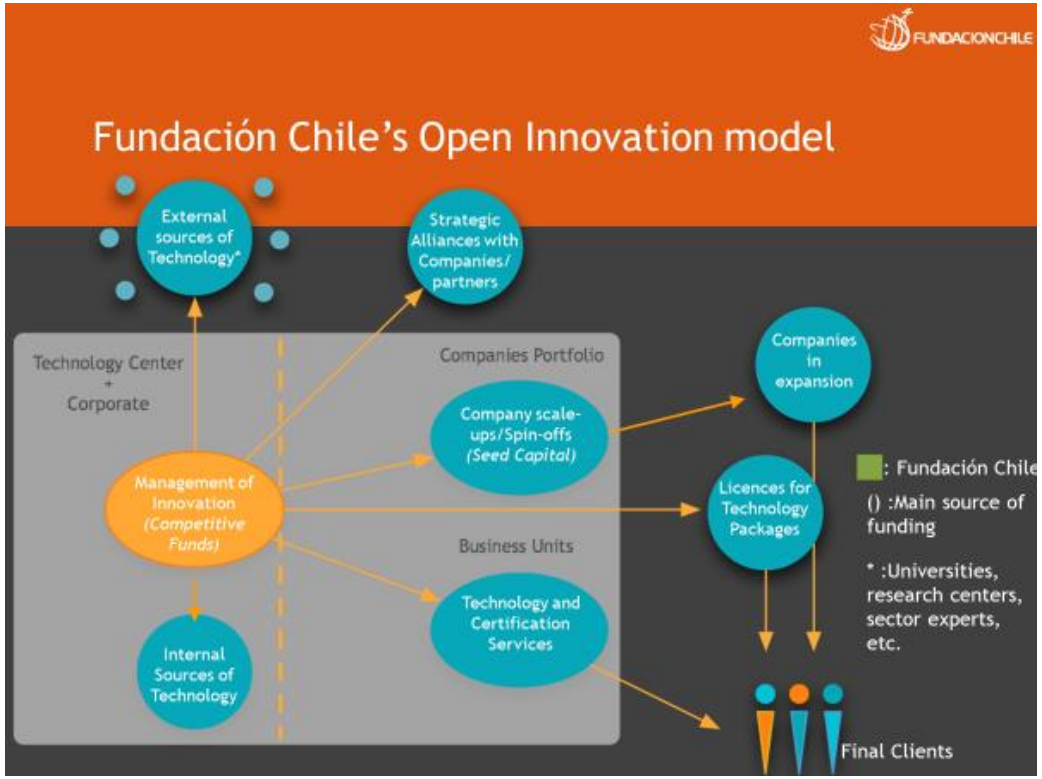


Captures and disseminates technologies to multiple users (as a technological antenna) through seminars, specialized magazines, internet portals, and technical assistance.

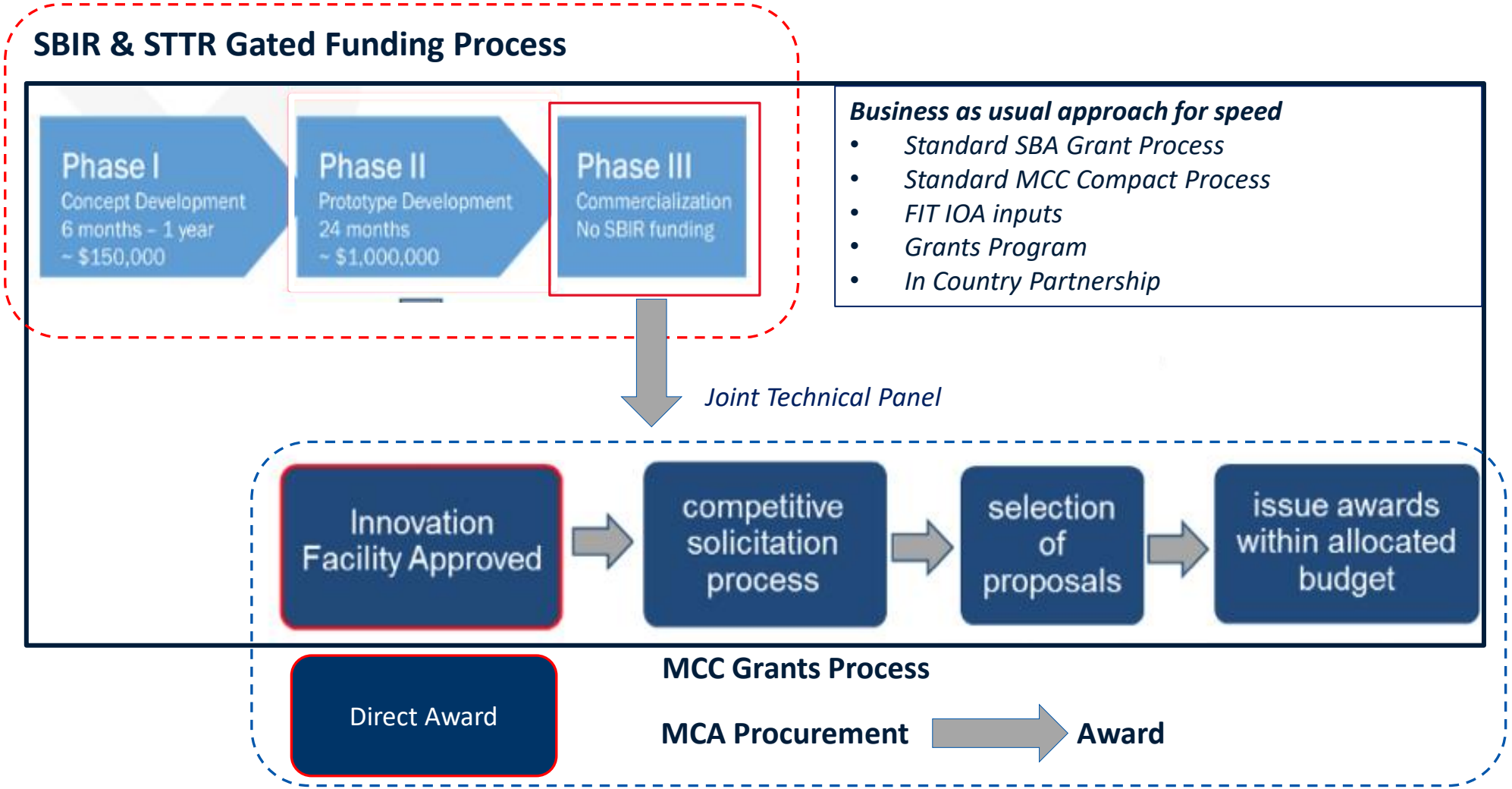
Develops standards and certification systems.

Develops, adapts and sells technologies to clients in the productive and public sectors, in the country and abroad.

Fosters **institutional innovations**.

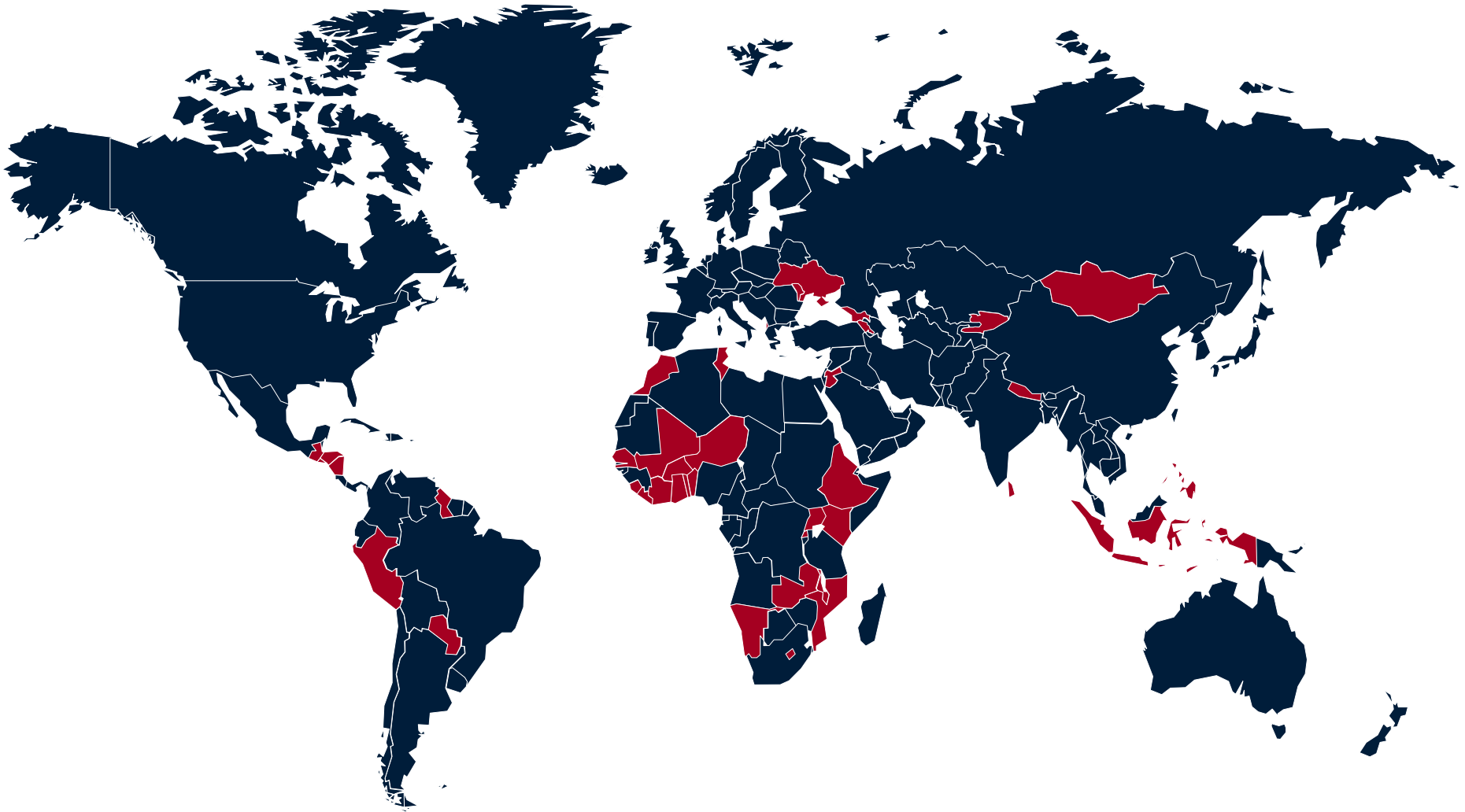


In the MCC implementation case, the MCC's internal process for grant Program development would run in parallel to the SBIR/STTR selection process



For global reach, 40% of MCC LLMIC partner countries are World Intellectual Property members, allowing for extensive tech collaboration

Current or Prior MCC Partner Countries & WIPO Members



60 relevant LLMIC countries
41 MCC current/past countries
16 MCC/WIPO countries:

- Benin
- Burkina Faso
- Liberia
- Malawi
- Mongolia
- Morocco
- Mozambique
- Nepal
- Niger
- Philippines
- Senegal
- Sierra Leone
- Timor-Leste
- Togo
- Tunisia
- Zambia

Questions for Discussion

1. How can MCC and SBA protect the intellectual property (IP) of American innovation and technologies?

2. If the technology achieves commercialization before the program ends, MCC envisions a Grants Manager to match funds from external investors. Which impact investors should MCC consider in its outreach efforts to attract external capital?

3. What are key criteria the Joint Technical Panel (JTP) and/or Grants Manager should consider in its due diligence of potential awardees?

4. What are key metrics MCC and SBA should consider in the monitoring and evaluation as well as impact of the Innovation and Technology Program?

5. Assuming successful implementation of a pilot program, what should MCC consider in growing and scaling the Innovation and Technology Program?

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Prior Slides – For Reference

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Finance, Investment & Trade

Innovation and Technology Program

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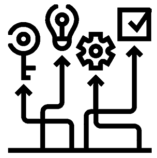
Problem Statement



Strengthen the role of innovation and technology in partner countries, while promoting more business-centric, market-based solutions!

Concept:

U.S.-based innovations are world class. The Innovation and Technology Program (ITP) unlocks American technologies for MCC partner countries by sourcing ***innovations validated by evidence*** and helping partner country governments and the private sector ***scale and sustain*** them. MCC is positioned to take smart risk with proven high-impact technologies.

- ***Leverage MCC's experience*** with grants and our global development role to ***create innovation platforms.***
- ***Promote U.S. best practices, innovations, and technological developments*** by providing a pathway to commercialization and scale for proven solutions.
- Provide ***early stage grant funding*** to ventures that want to ***adapt proven innovations*** and ***business models*** with the potential to reduce poverty.

Proposal to Partner with USG's SBIR & STRR Programs

Small Business Innovation Research (SBIR) - Catalyzes technological innovation by increasing the participation of small companies in Federal R&D projects, increases private sector commercialization of innovation derived from federal R&D, and fosters participation by minority and disadvantaged persons.
Small Business Technology Transfer (STTR) - Catalyzes cooperative R&D and federal technology transfer. STTR provides funding for research proposals which are developed and executed cooperatively between a small firm and a scientist in a research organization and meet requirements of the federal funding agency.

Increase U.S. Participation in MCC Compacts

MCC can source and catalyze technologies by U.S. innovators looking to adapt proven inventions and business models that have the potential to reduce poverty in our partner countries.

Strengthen Impacts of MCC Investment

Technological innovations are key elements of development and catchup in low and lower-middle income countries. Market-based solutions have significant potential to rapidly address development challenges.

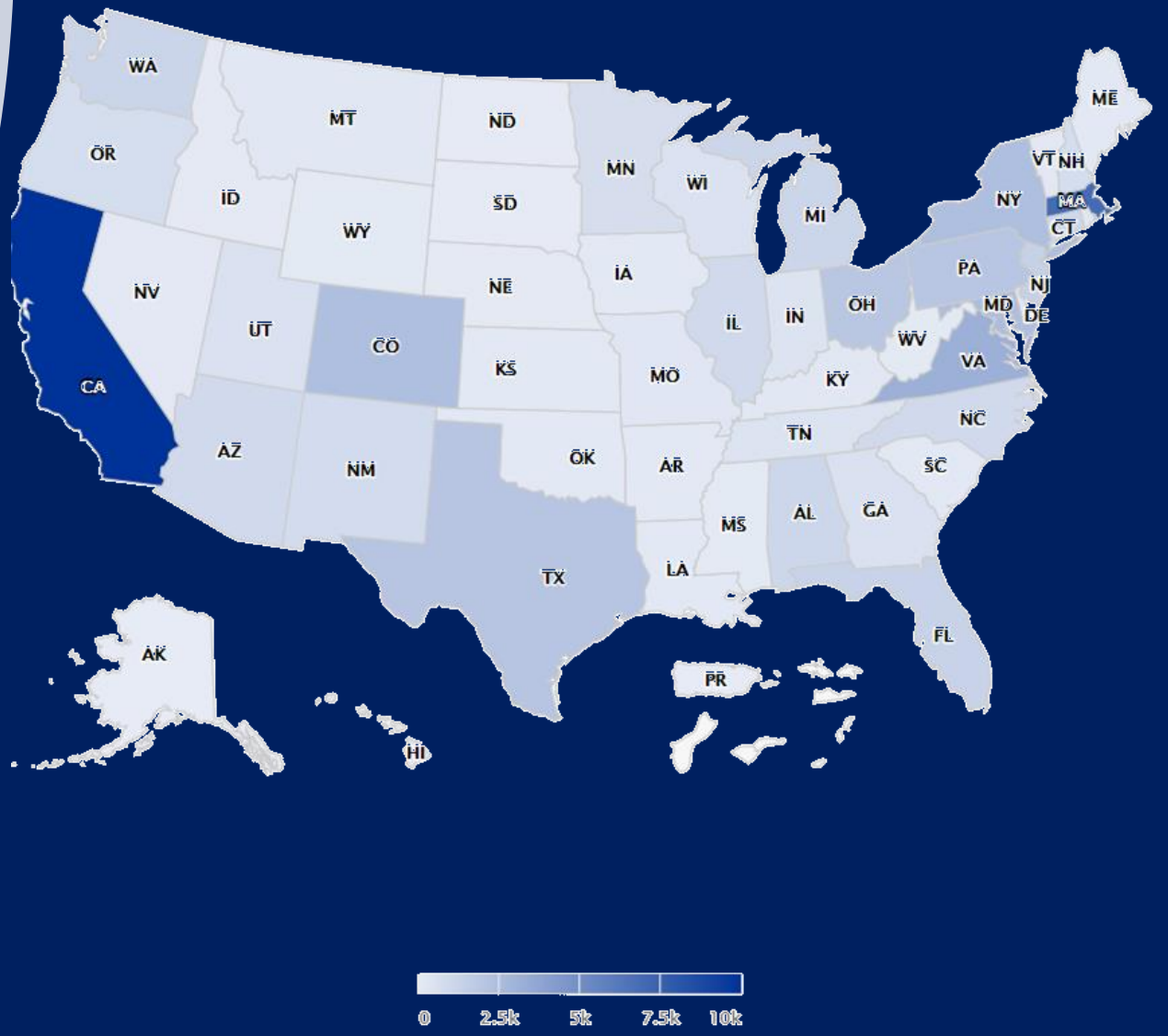
Drive Sustainability

Entrepreneurs and enterprises are key drivers of economic growth and job creation, as well as forming a large part of the innovation landscape in developing countries.

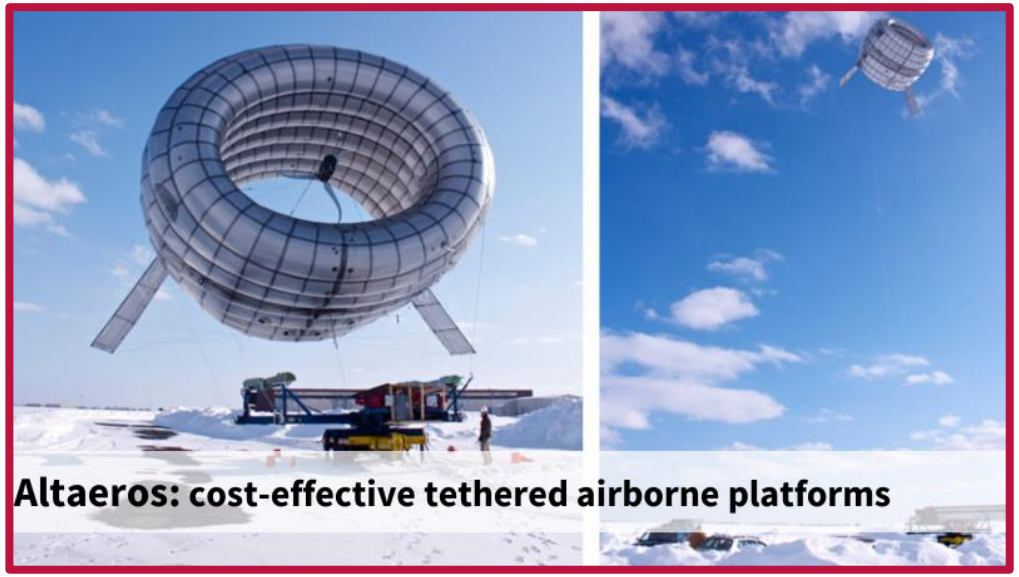
The opportunity: MCC Compacts represent a conduit where federally funded (SBIR & STRR) U.S. innovations and technologies, often stuck at the commercialization stage, can find partnership in MCC countries. The ITP can increase capacity and investment flows, creating new opportunities to foster innovations with development impact.

Unlocking Potential

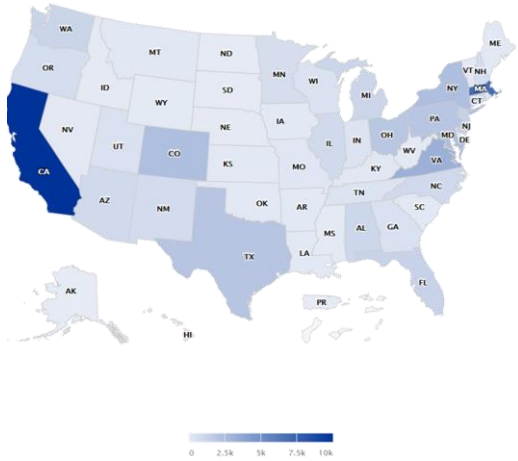
- Over 50K+ Phase II SBIR/STRR recipients to date representing geographical diversity. These are 50K+ new ideas that can be adapted for developing country contexts to solve some of the world's most pressing challenges.
- MCC has an opportunity to build upon USG investments and bring American innovation and technologies to create catalytic impact in partner countries.
- The ITP can strengthen the collaboration between U.S. agencies in promoting development to reduce poverty and increase economic growth.



ITP Technology Potential



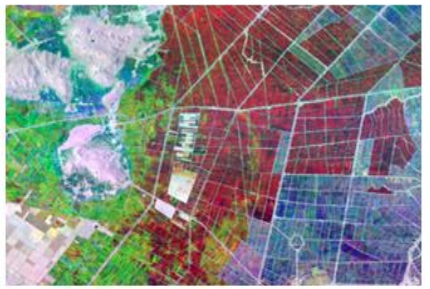
Altaeros: cost-effective tethered airborne platforms



Cambrian Innovation:
innovative wastewater treatment technology

Resensys:
low power structural monitoring solutions

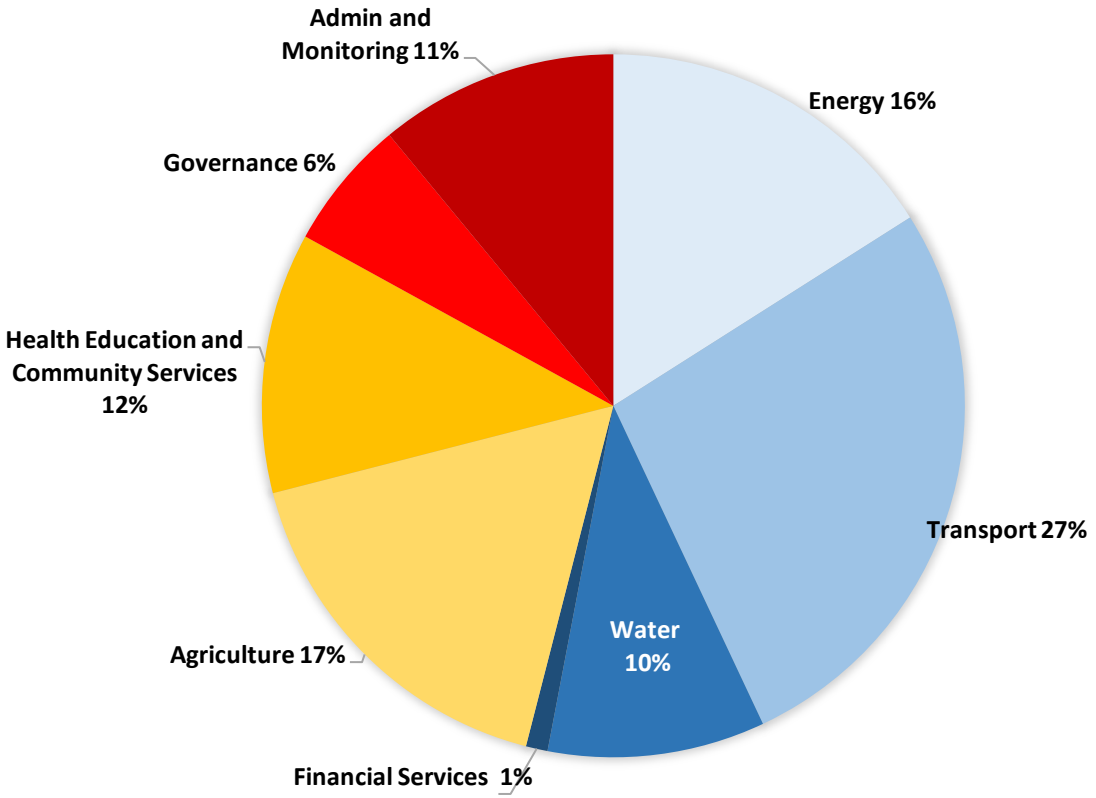
Applied Geosolutions:
customized tools using biogeochemical modeling, remote sensing, and GIS mapping



ITP Alignment with MCC Core Investments

Leverage on-going and planned MCC Compacts and Thresholds by matching areas of overlap between U.S. technology competence and top MCC investment distribution.

MCC Investment Distribution



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Agro-tech: Agriculture in arid and semi-arid regions; agricultural advanced methods and technologies (irrigation systems), livestock management, herd planning, and precision agriculture.

Basic infrastructure and Environment: Safety of food and water supplies, remote healthcare solutions (including mobile clinic, disasters and ER help centers).

Proposed projects would involve mature stage technologies ready for commercial adaptation in these top MCC investment sectors.

Making ITP Work

MCC grant Program development ***(MCC internal process)*** is run normally - and in parallel - to SBIR & STRR normal funding phases to build off pipeline of graduated companies.

Agencies With SBIR & STTR

- Department of Agriculture (USDA)
- Department of Commerce (DoC) NIST, NOAA
- Department of Defense (DoD)
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- Environmental Protection Agency (EPA)
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SBIR & STTR Gated Funding Process

Phase I
Concept Development
6 months – 1 year
~ $150,000

Phase II
Prototype Development
24 months
~ $1,000,000

Phase III
Commercialization
No SBIR funding

Business as usual approach for speed

- *Standard SBA Grant Process*
- *Standard MCC Compact Process*
- *FIT IOA inputs*
- *Grants Program*
- *In Country Partnership*

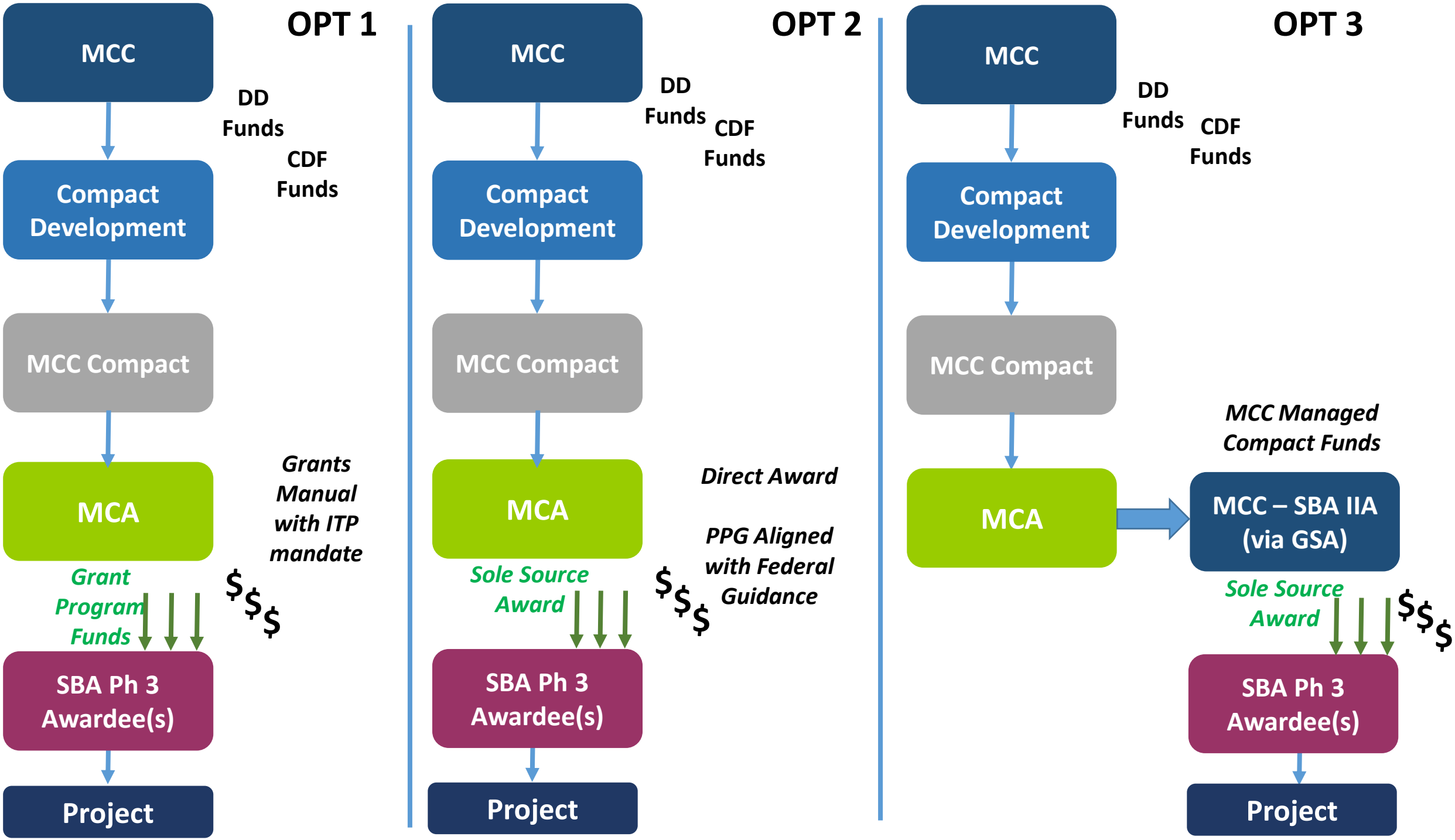
Joint Technical Panel

Innovation Facility Approved → competitive solicitation process → selection of proposals → issue awards within allocated budget

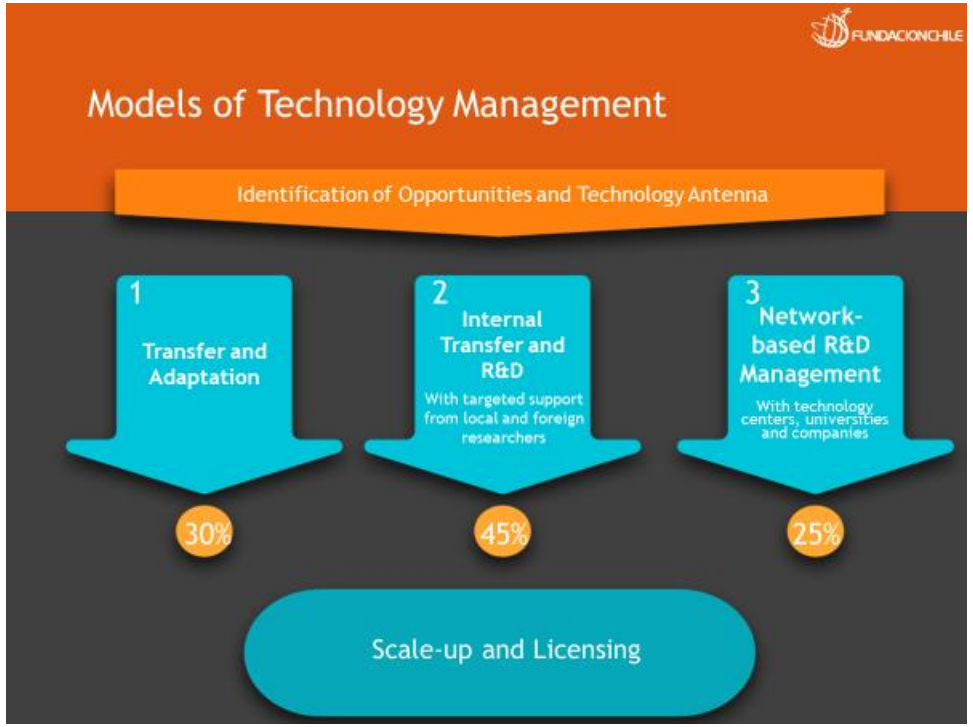
Direct Award

MCC Grants Process

MCA Procurement → **Award**


OPT 1
MCC
DD Funds
CDF Funds
Compact Development
MCC Compact
MCA
Grants Manual with ITP mandate
Grant Program Funds
$$$
SBA Ph 3 Awardee(s)
Project
OPT 2
MCC
DD Funds
CDF Funds
Compact Development
MCC Compact
MCA
Direct Award
PPG Aligned with Federal Guidance
Sole Source Award
$$$
SBA Ph 3 Awardee(s)
Project
OPT 3
MCC
DD Funds
CDF Funds
Compact Development
MCC Compact
MCA
MCC Managed Compact Funds
MCC – SBA IIA (via GSA)
Sole Source Award
$$$
SBA Ph 3 Awardee(s)
Project

Success Story – Fundación Chile



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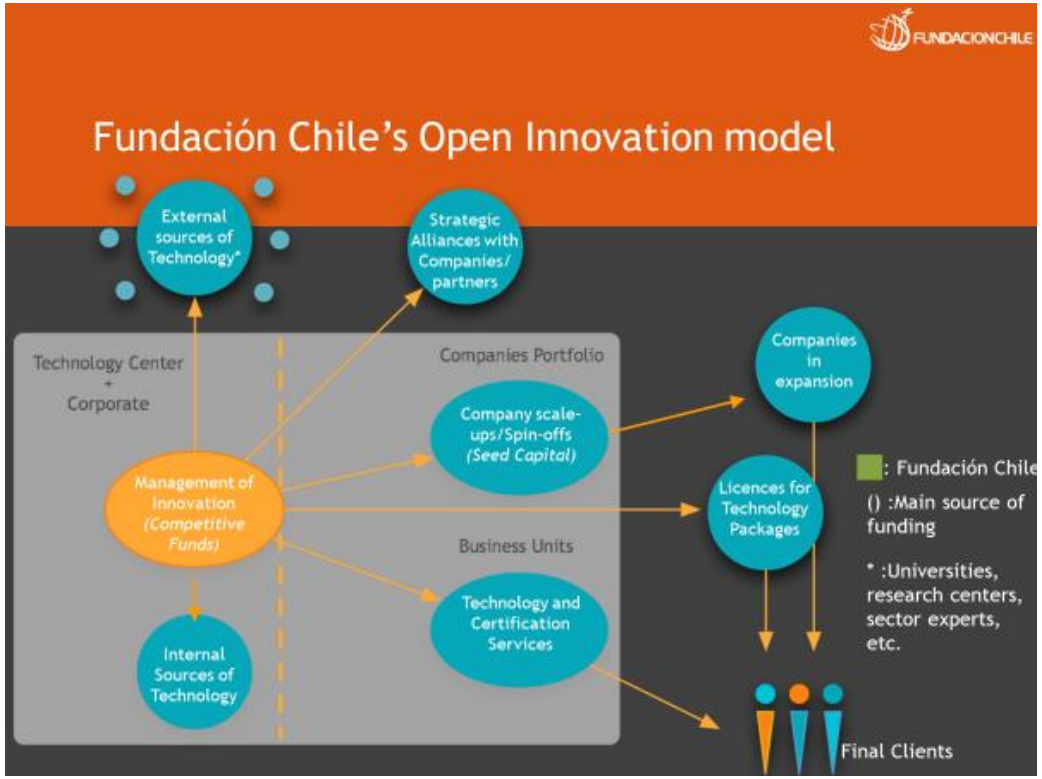
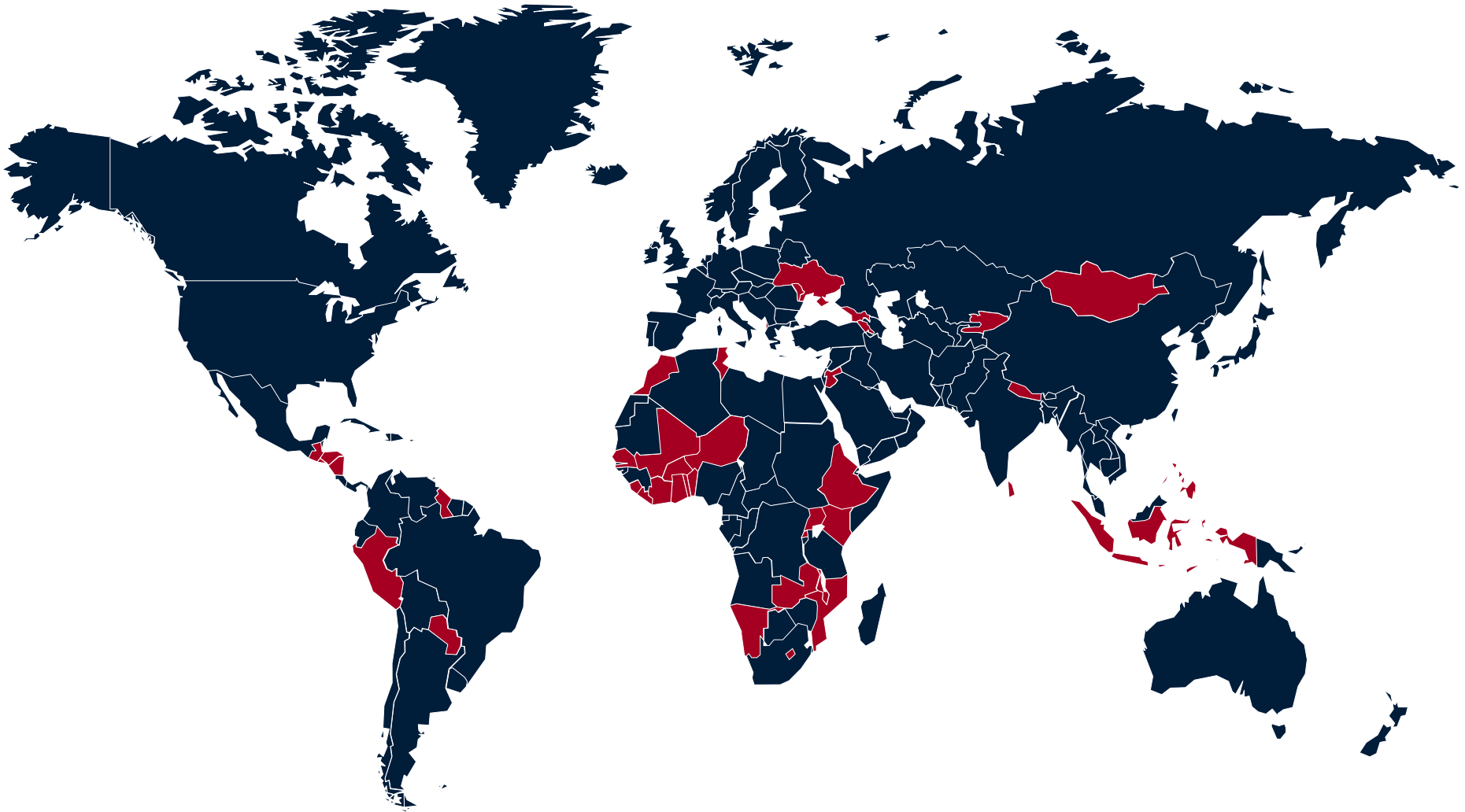


40% of MCC LLMIC partner countries are also World Intellectual Property Organization members, allowing for extensive collaboration

Current or Prior MCC Partner Countries & World Intellectual Property Organization Members



60 relevant LLMIC countries
41 MCC Current Past Countries
16 WIPO members

- Benin *
- Burkina Faso *
- Liberia *
- Malawi *
- Mongolia *
- Morocco *
- Mozambique *
- Nepal *
- Niger *
- Philippines *
- Senegal *
- Sierra Leone *
- Timor-Leste *
- Togo *
- Tunisia *
- Zambia *

MCC Candidate Country (LLMIC) Overlap List

Benin *
Burkina Faso *
Burundi
Cameroon
Cabo Verde
Caribbean
Central African Republic
Chad, Republic
Comoros
Cote d'Ivoire
Democratic Republic of Congo
El Salvador
Eritrea
Ethiopia
The Gambia
Georgia
Ghana
Guatemala
Guinea
Guinea-Bissau
Haiti
Honduras
Indonesia
Jordan
Kenya
Kiribati
Kosovo
Kyrgyz Republic
Lao PDR
Lesotho
Liberia *
Madagascar
Malawi *
Mauritania
Micronesia, Fed. Sts.
Moldova
Mongolia *
Morocco *
Mozambique *
Myanmar
Nepal *
Nicaragua
Niger *
Papua New Guinea
Philippines *
Rwanda
Sao Tome and Principe
Senegal *
Sierra Leone *
Solomon Islands
South Sudan
Sri Lanka
Sudan
Swaziland
Tanzania
Timor-Leste *
Togo *
Tonga
Tunisia *
Uganda
Ukraine
Vanuatu
Zambia *

Bold = MCC Country
"*" = WIPO Member
World Intellectual Property Organization

Discussion Questions

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