

The **Lightsmith** Group

# Private Adaptation Finance: CRAFT & GARI Updates

8 May 2018 • Bonn, Germany



*Presented to:*



**United Nations**  
Framework Convention on  
Climate Change

**Long Term Finance Committee**

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# The Lightsmith Group

+The Lightsmith Group partners each have 20+ years of experience in:

## *Growth Investing*

THE CARLYLE GROUP

GLOBAL ALTERNATIVE ASSET MANAGEMENT



VANTAGE POINT

CAPITAL PARTNERS

## *Development Finance*



IFC

International  
Finance Corporation  
WORLD BANK GROUP

## *Climate Finance*



NYSERDA



GREEN  
CLIMATE  
FUND



U.S. DEPARTMENT OF  
**ENERGY**

# CRAFT Concept: The Challenge

+Climate change is causing impacts now...



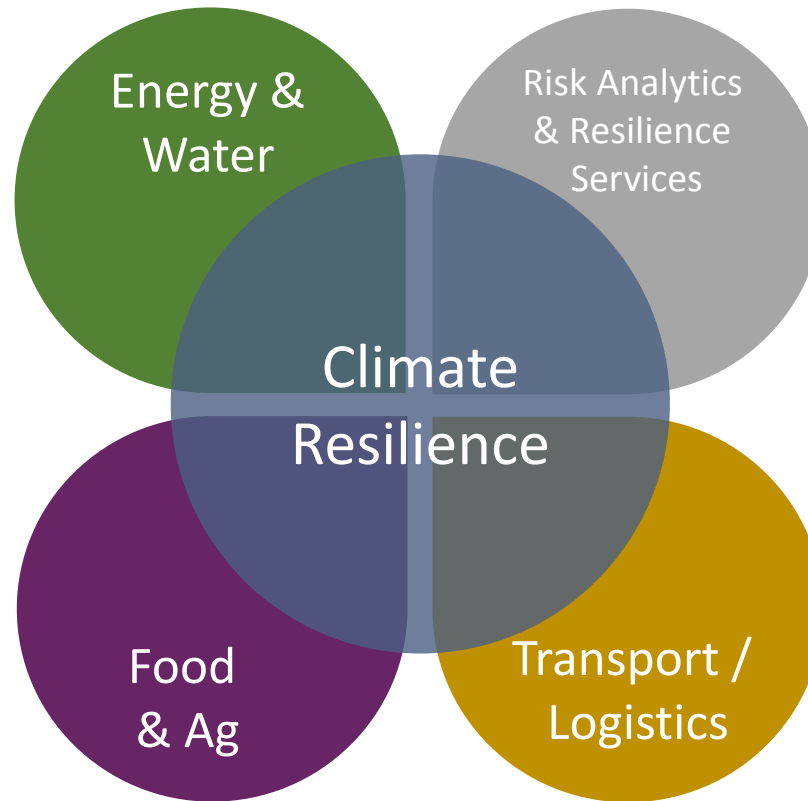
...in all sectors and across multiple SDGs





# CRAFT Concept: The Opportunity

## +Companies with “tools” that can build climate resilience



- Microgrids, distributed generation and storage: \$17B
- Demand response: \$11B
- Smart grid systems and software: \$10B
- Smart water management: \$9B
- Desalination equipment: \$9B
- Efficient irrigation systems: \$3B
- Water harvesting systems: \$1B

- Greenhouse & vertical farming: \$12B
- Precision agriculture systems and analytics: \$5B
- Soil treatments and amendments: \$5B
- Seed treatments: \$6B

- Business risk analytics: \$8B
- Geospatial imagery: \$3B
- Weather forecasting systems, services: \$3B
- Coastal and shore protection: \$5B
- Climate risk, adaptation & resilience consulting: \$2B
- Disaster recovery & business continuity: \$2B
- Logistics software and IoT: \$10B
- Cold chain equipment (Emerging Markets): \$8B
- Supply chain analytics software and services: \$3B

**20 market segments** linked to **resilience**

**\$130 B** current addressable market size

Sources: Navigant Research, IHS Markit, Gartner Inc., Technavio, Zion Market Research, Grand View Research, Allied Market Research, Global Industry Analysts, BCC Research.

# CRAFT Concept: The Opportunity (Examples)

## “Intelligence” Companies

Flood Modeling



## “Solutions” Companies

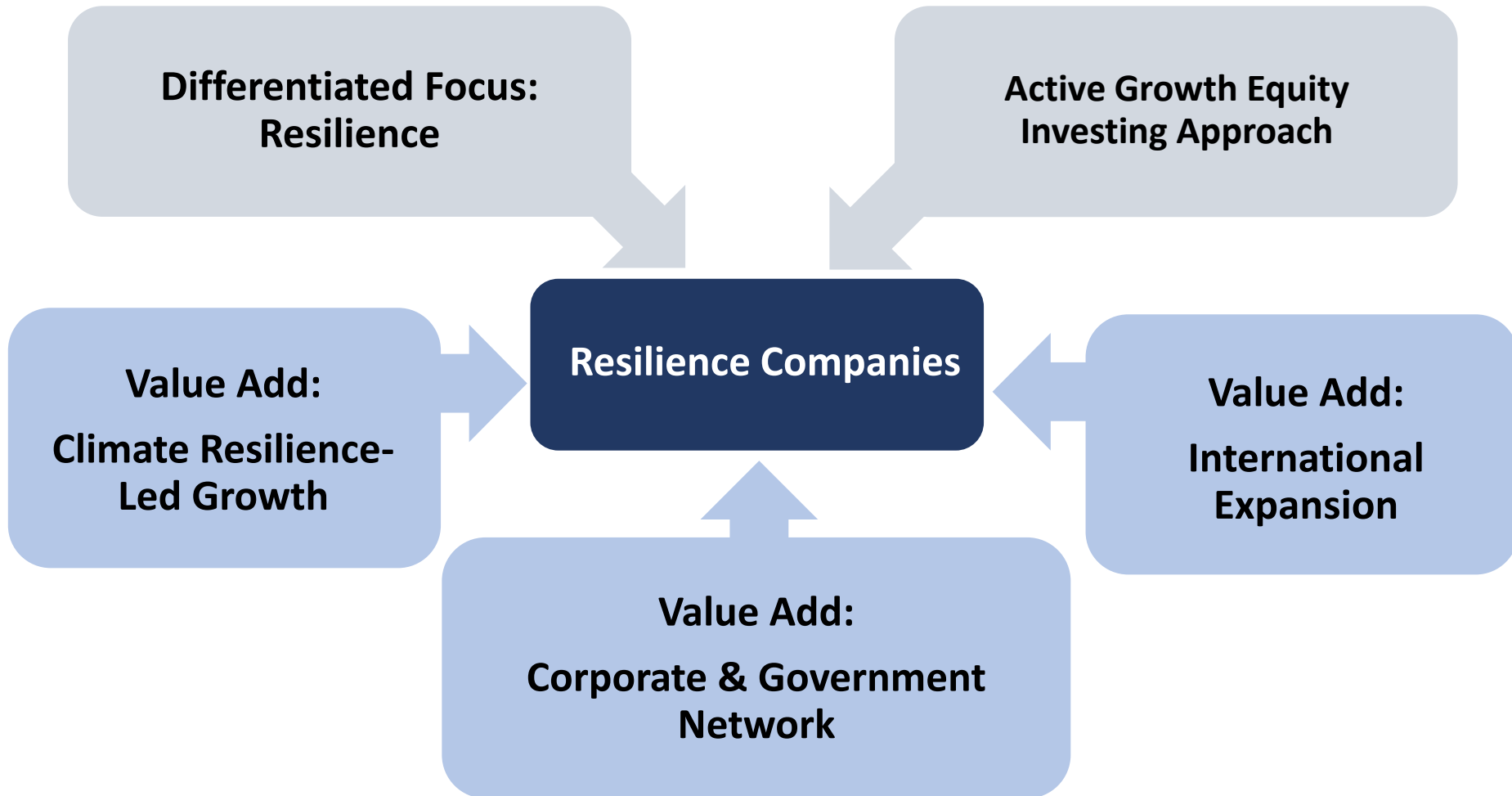
Drip Irrigation





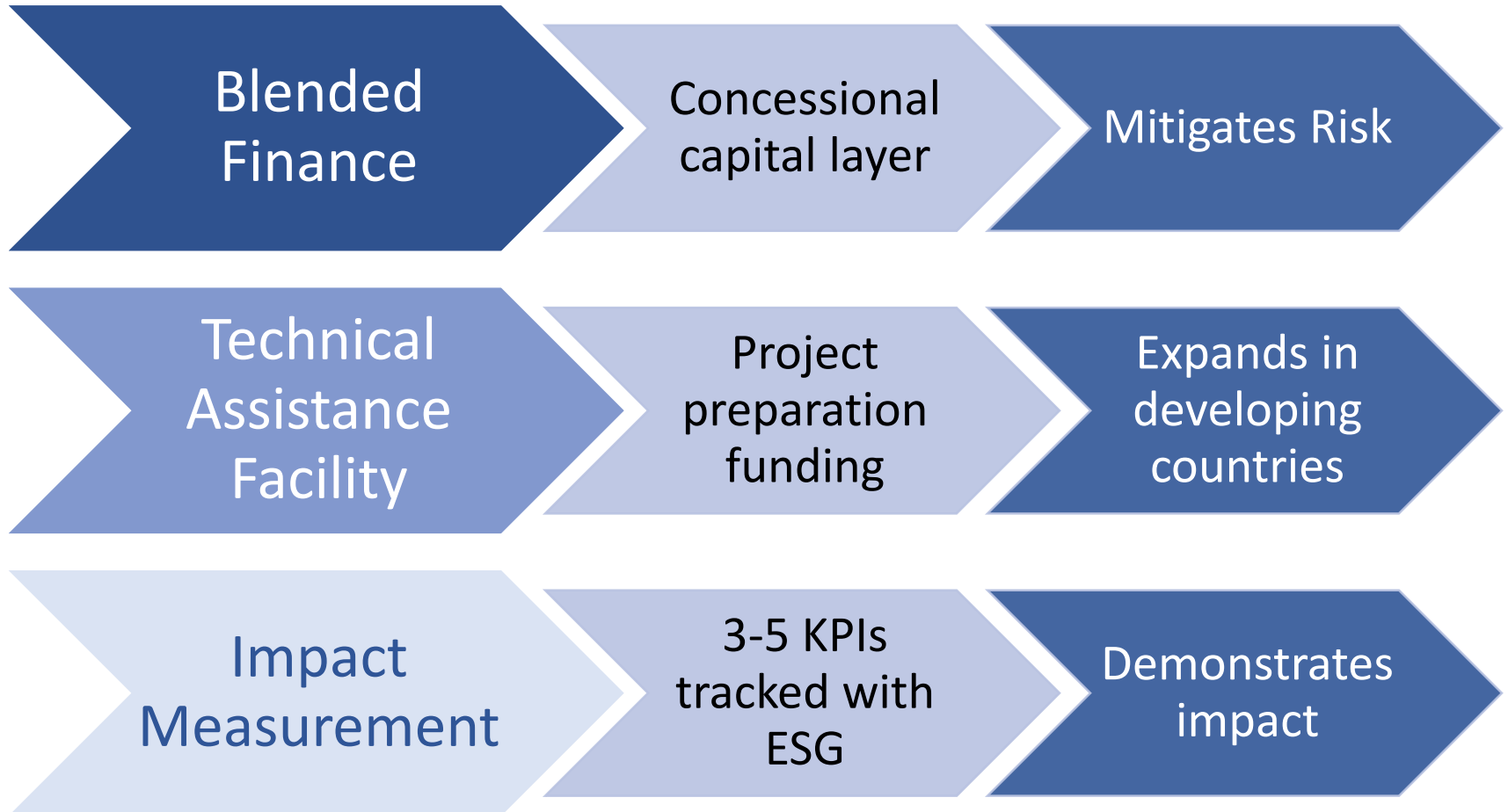
# CRAFT Concept: The Strategy

+ Make active growth investments in resilience companies & apply solutions in developing countries



# CRAFT Concept: The Innovation

+CRAFT proposes three structural innovations:



# CRAFT Concept: Blended Finance

+Concessional investment mobilizes 4X non-concessional

Financing	Amount	Financial Return	Impact
Non-Concessional Investment	\$200-400M	Commercial returns	Direct impacts from investments
<b>Concessional Investment</b>	<b>\$50-100M</b>	Concessional returns; mitigates risk	Crowds-In non-concessional; Demonstration effect
Target Size	\$250-500M		
<b>TA Facility</b>	<b>\$20M</b>	Grant funding	Apply solutions in LICs, SIDs

# CRAFT Concept: TA Facility

+TA Facility supports application of solutions in developing countries (especially in LICs and SIDS)

## Project Preparation Technical Assistance Facility (TA Facility)

### Sources of Funds



- **\$20 million of grant funding**

### Governance



- Pre-established criteria
- Aligned with and staffed by sponsor



- Standard reporting, monitoring, audit



### Uses of Funds



- **Project preparation in developing countries, especially LICs & SIDS**



- Capacity building for solutions stakeholders



- Market development for climate resilience solutions

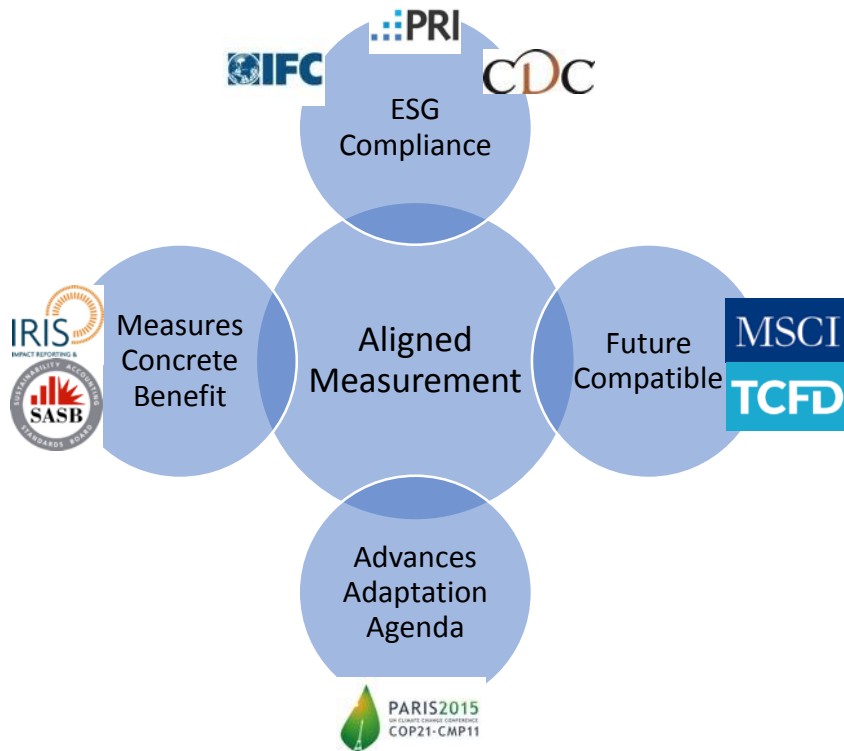


- Monitoring and reporting of impacts

# CRAFT Concept: Impact Measurement

+ Measures 3-5 indicators of impact on adaptation, SDGs

## Balanced Assessment Approach



## Systematic Assessment Process

Due Diligence	Execution	Asset Management	Exit
ESG Due Diligence	Secure Information Rights	Informal quarterly discussions (ESG, RM)	Future Compatibility
Resilience Benefit Due Diligence	Define 1-3 Resilience Metrics (RM)	<b><u>Integrated Annual Report</u></b>	Continued Resilience Metrics monitoring systems
<b><u>Integrated Due Diligence Report</u></b>	Train, implement monitoring system	Audit process	<b><u>Integrated Exit Report</u></b>



+ Integrate measurement with ESG risk analysis



# CRAFT Concept: Gender Inclusion & Impact

+ Risks and impacts increased by climate change disproportionately affect women and girls



- **Extreme weather events:** Climate change increases frequency and severity of extreme weather events (MunichRe)

- Up to five times more women die from natural disasters than men (LSE, 2007)

- **Agricultural stress:** Climate change increases agricultural stress

- 45-80% of agricultural workforce in developing countries are women
- 2/3 of women in developing countries, 90%+ women in Sub-Saharan Africa are engaged in agricultural work



- **Water stress:** Climate change increases water stress

- In 63% of rural households in Sub-Saharan Africa, women collect, carry household's water (UN, 2010)



- **Healthcare impact:** Climate change increases health risks through heat and extreme weather events, increased air and water pollution, and changes in disease vectors

- Women in developing countries are more likely to suffer from malnutrition, extreme weather events, and disease
- Women bear disproportionate responsibility for healthcare

CRAFT will include a gender inclusion policy and evaluate gender impact

# CRAFT Concept: Status Update

+ Recognized and supported by governments, multilaterals, philanthropies, and private investors



- **Global Innovation Lab for Climate Finance** selected, evaluated, and formally endorsed CRAFT in 2016-2017 (out of 175 proposals)

- **Nordic Development Fund (NDF)** and **Global Environment Facility (GEF)** announced \$1.6 million funding at COP23 to support operationalization



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# CRAFT Concept: Status Update

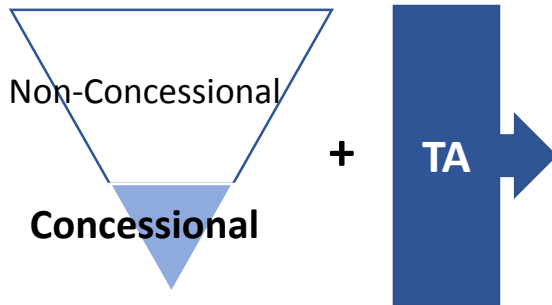
+NDF & GEF support several developments of CRAFT:

**600+**  
companies



➤ Investment & Impact Strategy

➤ Resource Mobilization



- Concessional
- Non-Concessional
- TA Facility



+



➤ Legal & Regulatory Setup

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# GARI: Overview & Status

+Private sector working group focused on investment, adaptation, climate resilience

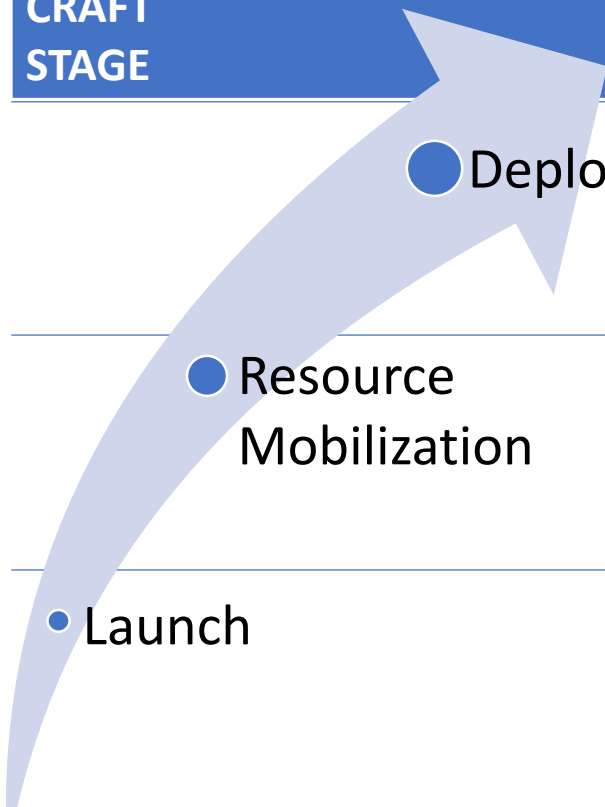




- Launched at Paris COP21, partnered with UN Secretary General's A2R Climate Resilience Initiative
- Convened 150+ private investors & other stakeholders in 11 meetings in 2016 - 2018
- Released 2016 GARI Discussion Paper at Marrakech COP22
- Released 2017 GARI Investor Guide at Paris One Planet Summit
- Target 2018 Discussion Paper

[www.garigroup.com](http://www.garigroup.com)

# CRAFT Concept: Gaps & Initiatives

+ Public and private support needed to overcome gaps

CRAFT STAGE	GAP	PUBLIC PARTNER	PRIVATE PARTNER
 <ul style="list-style-type: none"> <li>Deployment</li> </ul>	In-Country Applications	Developing Countries	The <b>Lightsmith</b> Group Resilience Companies
<ul style="list-style-type: none"> <li>Resource Mobilization</li> </ul>	Concessional, Non-Concessional, TA Funding	Govts, MDBs, DFIs, Philanthropy	Private Investors
<ul style="list-style-type: none"> <li>Launch</li> </ul> 	Refine, Develop, Launch		The <b>Lightsmith</b> Group

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# Appendix

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# The Lightsmith Group

## The **Lightsmith** Group

Superior Returns. On Principle.

- Founded in 2016, The Lightsmith Group is a global investment platform focused on generating superior returns aligned with sustainable principles.
- Based in New York and San Francisco, Lightsmith's partners have over 40 years of experience in private investment and government, including particular expertise in climate finance and development.
- Lightsmith is the sponsor of the CRAFT concept, the first private investment strategy focused on climate resilience and adaptation

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# Lightsmith: Growth investors with government experience



## **Jay L. Koh, *Managing Director***

- 20+ years of experience in private equity, growth capital, government
- Investing experience: Managing Director & Partner, Siguler Guff; Head of Investment Funds & Chief Investment Strategist, CFO, OPIC; Head of EMEA Private Equity, R3 Capital (formerly Lehman GPS); Principal, The Carlyle Group
- Government / Policy: Founder & Chair, Global Adaptation & Resilience Investment Working Group (GARI); Board Member, New York State Energy Research and Development Authority (NYSERDA); Advisory Committee, NY Green Bank; Member, Private Sector Advisory Group (PSAG), UN Green Climate Fund (GCF); Adjunct Professor, Columbia University School of International and Public Affairs (SIPA); U.S. Supreme Court Clerk to Justice David Souter
- Member, California Bar; Member, Council on Foreign Relations
- J.D., Yale Law School; Masters in Management, Oxford University; A.B. Economics, magna cum laude, Harvard College

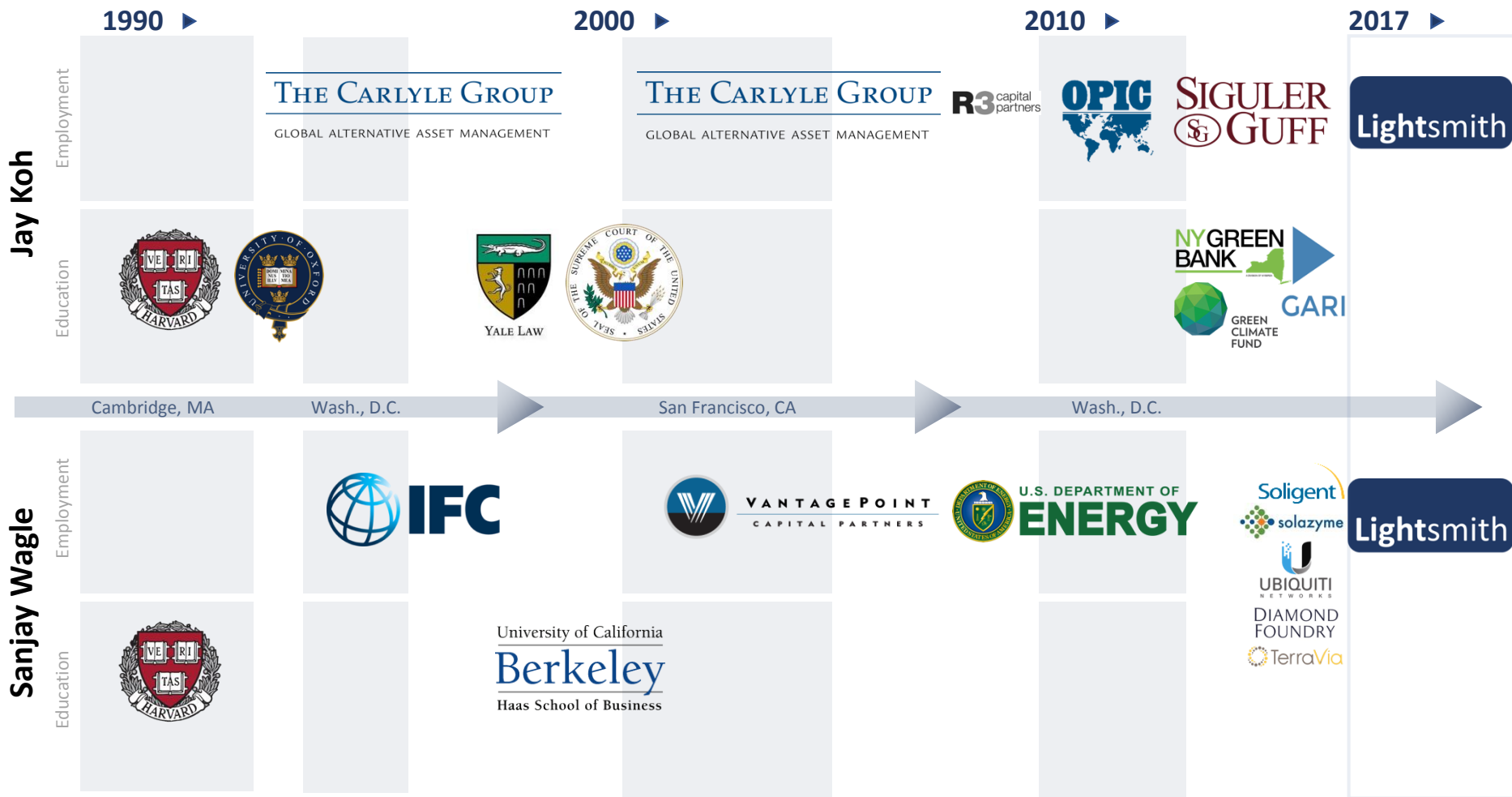


## **Sanjay J. Wagle, *Managing Director***

- 20+ years of experience in venture capital, company management, government
- Investing experience: Principal, CleanTech Group, VantagePoint Capital Partners; Principal, Expansion Capital Partners; Investment Officer, IFC (Infrastructure Dept.)
- Company executive roles: Diamond Foundry; Ubiquiti Networks (Nasdaq: UBNT); TerraVia (Nasdaq: TVIA); Soligent; Operating Advisor, BroadScale Group
- Government / Policy: Renewables Advisor, Office of the Secretary, U.S. Dept. of Energy; Associate Director for Commercialization, Advanced Research Projects Agency – Energy (ARPA-E); Board Member, Vote Solar
- M.B.A., University of California at Berkeley; A.B. Government and Economics, magna cum laude, Harvard College

# Lightsmith: Growth investors with government experience

+ Experienced investors who have known each other for nearly 30 years



# CRAFT: First Private Investment Strategy for Adaptation & Climate Resilience

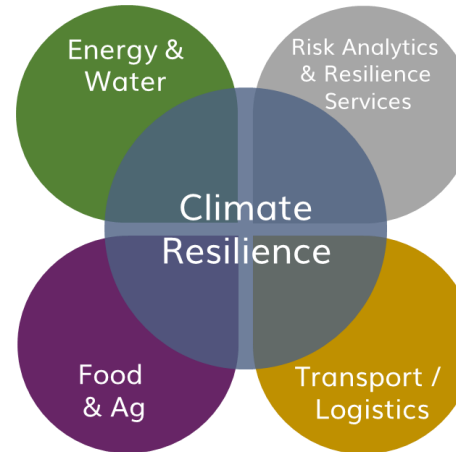
## Adaptation Finance Challenge



- Climate change is already increasing risk & impact
- Adaptation Finance Gap
- Private Sector Tools Exist

➔ Invest in, scale-up & apply private sector tools in developing countries

## Private Sector Opportunity



- 20 Mkt Segments
- \$130B Current Mkt Size
- “Resilience Intelligence”
- “Resilience Solutions”

## CRAFT Investment Strategy

- \$500M investment vehicle
    - \$100M concessional
    - \$400M non-concessional
  - \$20M Tech Transfer TA Facility
- ↓
- 20-25 investments in resilience intelligence & solutions companies
  - Apply to developing countries
  - Measure Adaptation Impact

## Team

The **Lightsmith** Group

- 40+ years experience in investing, govt.



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**Global Innovation Lab for Climate Finance Winner 2016**