Achieving the SDGs with Emerging Technologies – and the Important Role of the Legal Profession

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WORKSHOP OBJECTIVES

- Develop familiarity with the Sustainable Development Goals (SDG) and how they relate to all organizations and individuals

- Explore how emerging technologies can be leveraged to address the SDGs

- Learn a framework for putting the SDGs within a shared context for purposes of solutioning and collaboration as well as legal relevance

- Discuss the top ways in which the legal community can enable the implementation of the SDGs and sustainability of solutions, "Advocacy for Good"

WHAT ARE THE United Nations SDGs?

The idea of **sustainable development**, reflected in 17 Sustainable Development Goals (SDGs), is to move beyond traditional indicators such as GDP growth and per capita income to a richer set of objectives such as well-being, social fairness and environmental sustainability.

WHY THE SDGs MATTER

- Every **individual** has basic rights. Every individual matters.

- The stability and success of a **society** depends not just on economic growth, but social trust, fairness, equality and sustainability.

- Stable and successful nations strengthen the **global market**.

Sustainability
*"Meeting the needs of the present without compromising the
ability of future generations to meet their own needs."*
(United Nations Environment Programme)

Social (People)

Economics (Profit)   **Environmental (Planet)**
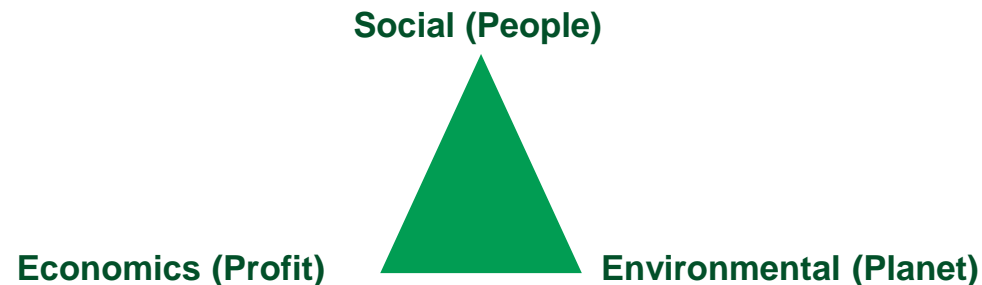
TECHNOLOGY IS ESSENTIAL TO ACHIEVE THE SDGs

What If…

- AI-enabled wearables could detect early signs of diseases such as diabetes

- AI and drones could maximize agricultural yields and blockchain could track pesticide use

- AI and drones could catch wildlife poachers or blockchain could track the movement of endangered species

- Blockchain could enable peer-to-peer trading of excess water resources

- AI could be used to detect lead in pipes

- Drones to deliver medicines to rural areas

- AI and IoT devices could prevent crime and help with policing and tracking criminals

- IoT sensors could help with predictive maintenance and safety of public infrastructure

- Virtual reality, 3D printing and robotics could create immersive learning

- Adaptive learning technology and gamification could personalize and engage content for students to improve learning

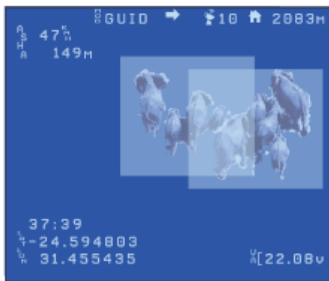# A USE CASE: TRACKING WILDLIFE POACHERS WITH AI
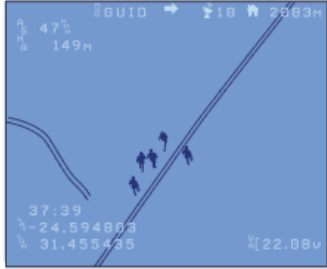
STEP 1: OFFLINE NEURAL NETWORK TRAINING ON ANIMALS AND POACHERS

STEP 2: DRONES FLY OVER WILDLIFE AREAS AND CAPTURE IMAGES

STEP 3: VIDEOS AND IMAGES ARE TRANSMITTED TO A COMPUTER

STEP 4: IMAGES ARE PRE-PROCESSED FOR BETTER DETECTION

STEP 5: VIDEO AND IMAGES ARE PROCESSED USING NEURAL NETWORK

STEP 6: NEURAL NETWORK ANNOTATIONS ARE OVERLAID ON THE ORIGINAL IMAGE TO IDENTIFY POACHERS WHEREABOUTS
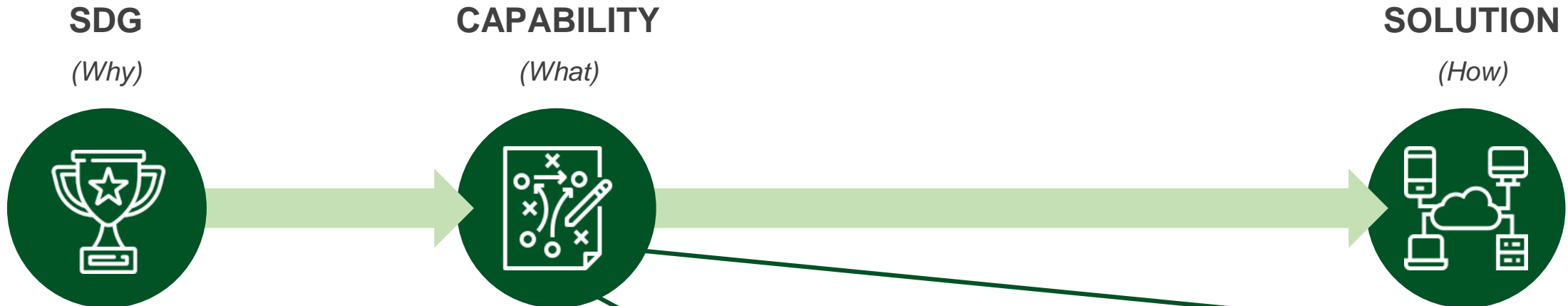
AI-powered image classification and object detection

AI-powered image classification and object detection can be used to combat the illegal wildlife trade, worth $8 billion to $10 billion a year
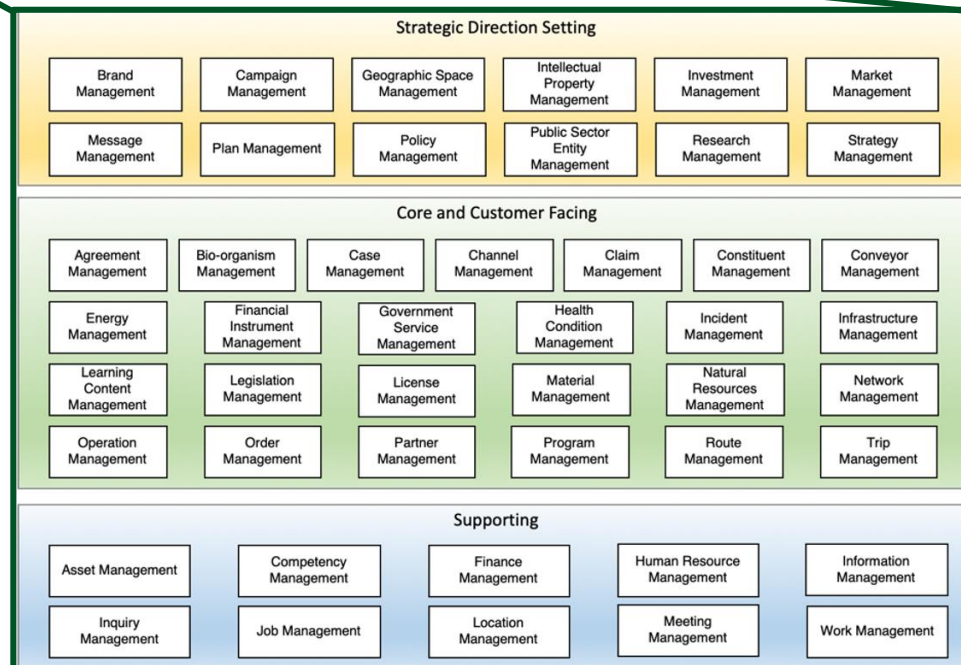
Source: McKinsey

But more importantly, how do we put those technologies into a framework that allows us to match them to needs and facilitate global collaboration?
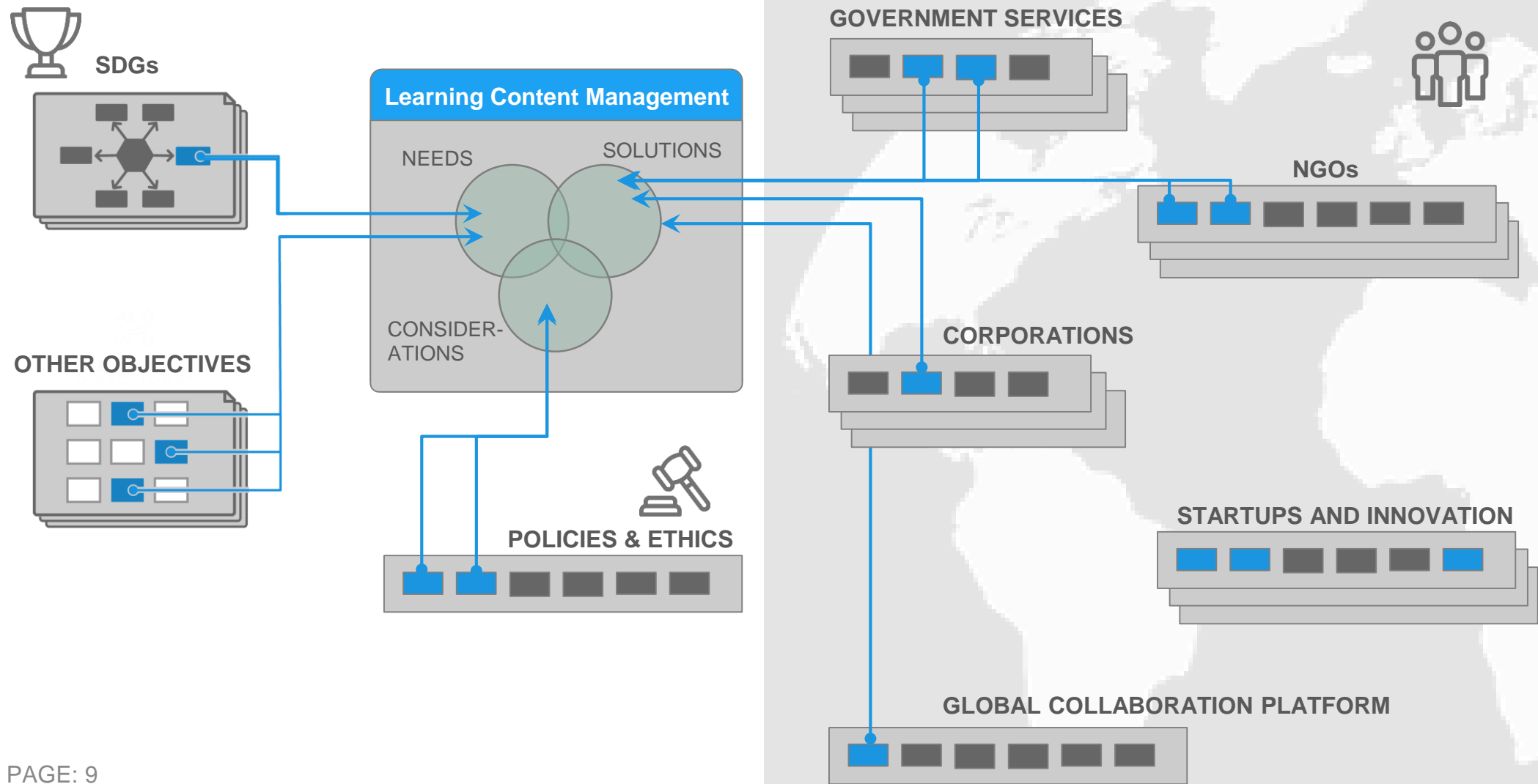
A FRAMEWORK FOR MATCHING NEEDS...

SDG

(Why)

CAPABILITY

(What)

SOLUTION

(How)

**A GLOBAL COMMON
REFERENCE FOR
GOVERNMENT
AND SOCIETY**
(BIZBOK® GUIDE)

Strategic Direction Setting

Brand Management	Campaign Management	Geographic Space Management	Intellectual Property Management	Investment Management	Market Management
Message Management	Plan Management	Policy Management	Public Sector Entity Management	Research Management	Strategy Management

Core and Customer Facing

Agreement Management	Bio-organism Management	Case Management	Channel Management	Claim Management	Constituent Management	Conveyor Management
Energy Management	Financial Instrument Management	Government Service Management	Health Condition Management	Incident Management	Infrastructure Management
Learning Content Management	Legislation Management	License Management	Material Management	Natural Resources Management	Network Management
Operation Management	Order Management	Partner Management	Program Management	Route Management	Trip Management

Supporting

Asset Management	Competency Management	Finance Management	Human Resource Management	Information Management
Inquiry Management	Job Management	Location Management	Meeting Management	Work Management

...AND FACILITATING GLOBAL COLLABORATION

SDGs

OTHER OBJECTIVES

Learning Content Management

NEEDS

SOLUTIONS

CONSIDER-ATIONS

POLICIES & ETHICS

GOVERNMENT SERVICES

NGOs

CORPORATIONS

STARTUPS AND INNOVATION

GLOBAL COLLABORATION PLATFORM

AN EXAMPLE: A GLOBAL EDUCATION APPROACH

COMPLETE COURSE

Student

| Enroll in Course | Complete Course | Demonstrate Course Knowledge | Finalize Course |

Learning Content Management

GLOBAL LEARNING COMMUNITY AND SOLUTIONS

Learning Content Personalization	Critical and Design Thinking Workshops
3D Printing and Robotics Labs	Life Skills Workshops
Virtual Reality Learning Content	Coding Skills
Study Materials and Homework Help	Learning Journey Management
Tutoring	…

MANGAHIGH
westermann

OneClass

HelpHub

cartedo

mindvalley

codemonkey

Blackboard

Facilitates education transformation
(student experience-focused, self-directed learning journey, seamless classes, immersive, life skills, etc.)

FROM: A siloed approach focused on individual responsibilities…

TO: An end-to-end focus on outcomes and value

FROM: Local approaches and resources…

TO: Leveraging the global community, technology and best practices

Note: Small subset for example purposes only.

BUILDING A GLOBAL CATALOG OF SOLUTIONS

The global common reference framework unites technologies with needs to accelerate and scale for education – and every other SDG-related category.

A GLOBAL COMMON REFERENCE FOR GOVERNMENT AND SOCIETY *(BIZBOK® GUIDE)*

2019 GLOBAL LEARNING LANDSCAPE
(HOLON IQ)

BENEFITS OF A DIFFERENT APPROACH

Getting serious about achieving the SDGs requires scale, collaboration, new mindsets and the foresight to envision a world that serves and protects people and planet. This approach…

- **Increases the effectiveness of addressing SDG needs** by shifting the perspective from a technology context to a shared, global society context. It also illuminates new patterns for leveraging solutions across SDGs that would otherwise be hard to identify from a technology-only perspective.

- **Achieves scale by creating a global community** by leveraging the full power of global collaboration for matching needs to solutions and sharing best practices, which connects everyone: communities, governments, NGOs, businesses and even individual contributors.

- **Aligns with human motivation** by taking a market-based approach to solving problems which not only activates businesses in developed nations, but stimulates economic growth in emerging nations through entrepreneurship and opportunities – which further contributes to SDG achievement. This approach also provides opportunities for greater meaning through human connection and contribution, helping to address spiritual poverty.

BENEFITS OF A DIFFERENT APPROACH (CONTINUED)

Getting serious about achieving the SDGs requires scale, collaboration, new mindsets and the foresight to envision a world that serves and protects people and planet. This approach…

- **Addresses needs and opportunities holistically and systemically** by bringing all contributors and stakeholders together around an integrated, shared context that is oriented around value and results – not individual missions and motivations.

- **Ensures legal engagement at the right place and time** by leveraging a structured framework that highlights where policies and legal considerations apply as well as where legal professionals are most needed to contribute. This approach also facilitates global collaboration and best practice sharing around common legal topics.

LEGAL CONSIDERATIONS AND IMPLICATIONS

- Personal information and privacy (e.g. causing harm or embarrassment)

- Bias and fairness (e.g. discrimination, exacerbating inequalities)

- Safe use and security (e.g. misdiagnosis)

- *What concerns you most?*

Leveraging the framework to track technology to policies and ethics
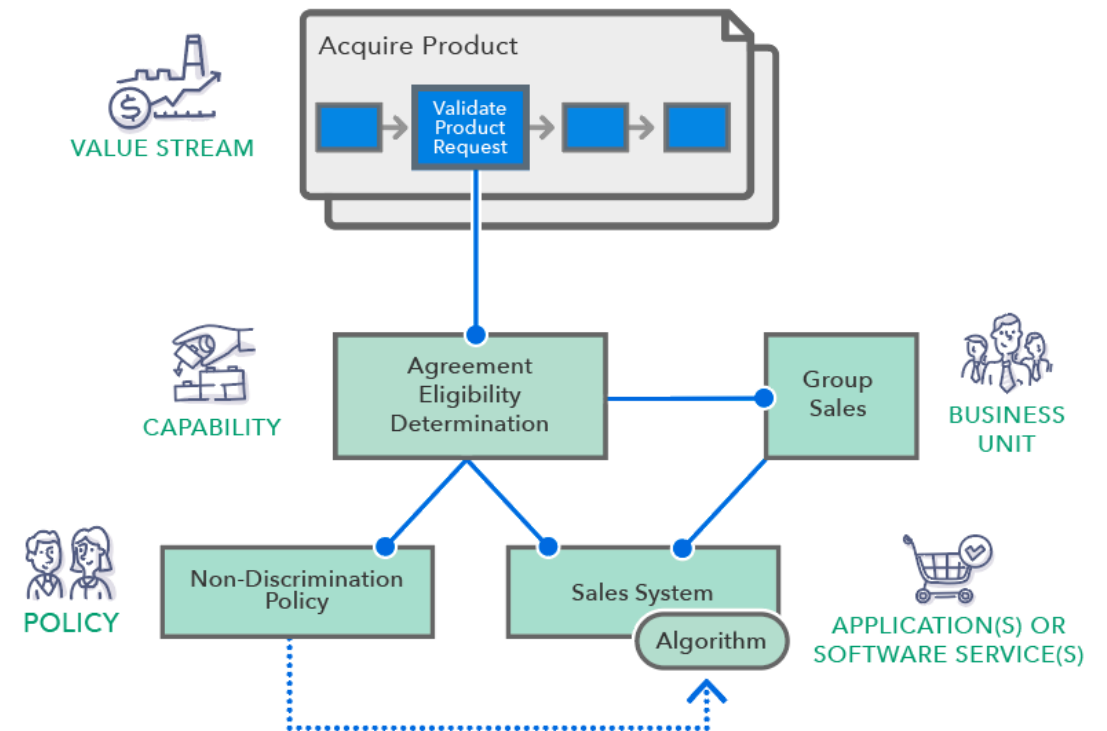
MAKING IT REAL

Government

- Encourage R&D and innovation (incentives, public sector adoption)
- Ensure infrastructure coverage and quality (e.g. broadband, public wifi)
- Develop policy and regulations (e.g. data rights and usage, privacy)

Business

- Reimagine the corporation (profit + purpose, stakeholder-driven versus shareholder-driven)
- Develop products and solutions to address SDG gaps (new markets)

NGOs

- Build capacity and deliver on missions
- Identify, highlight and act upon opportunities to apply technology for good
- Raise awareness and hold governments accountable to commitments
- Facilitate collaboration and partnerships to deliver on SDGs

Individuals / Civil Society

- Build and participate in a technology / solutions for good ecosystem
- Apply public pressure and advocate for change and outcomes

THE LEGAL PROFESSION IS A KEY ENABLER

The legal profession can be a key enabler to achieving the SDGs and a steward for a better world.

- SDG 16 (Peace and Justice, Strong Institutions) is particularly relevant to the legal community, but legal support and advocacy is necessary to support all SDGs <u>with the ultimate goal of eradicating poverty and creating a more equitable global society.</u> It requires <u>full, active participation from the international legal community</u>.

- Robust legal systems:
  - Safeguard human rights
  - Uphold the rule of law
  - Ensure equality, non-discrimination, safe use, security, privacy
  - Maximize commercial benefits and growth of developing economies

As a legal community, where should we go from here?
How can we maximize our impact to achieve the SDGs and be a steward for our communities and our world?

Advocacy For Good

Pro bono assistance to provide greater access to justice for all

Policy Making

International Partnerships and Collaboration

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