

Future-Ready Talent Policy Pathways for a Changing World

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National Geospatial Policy 2022

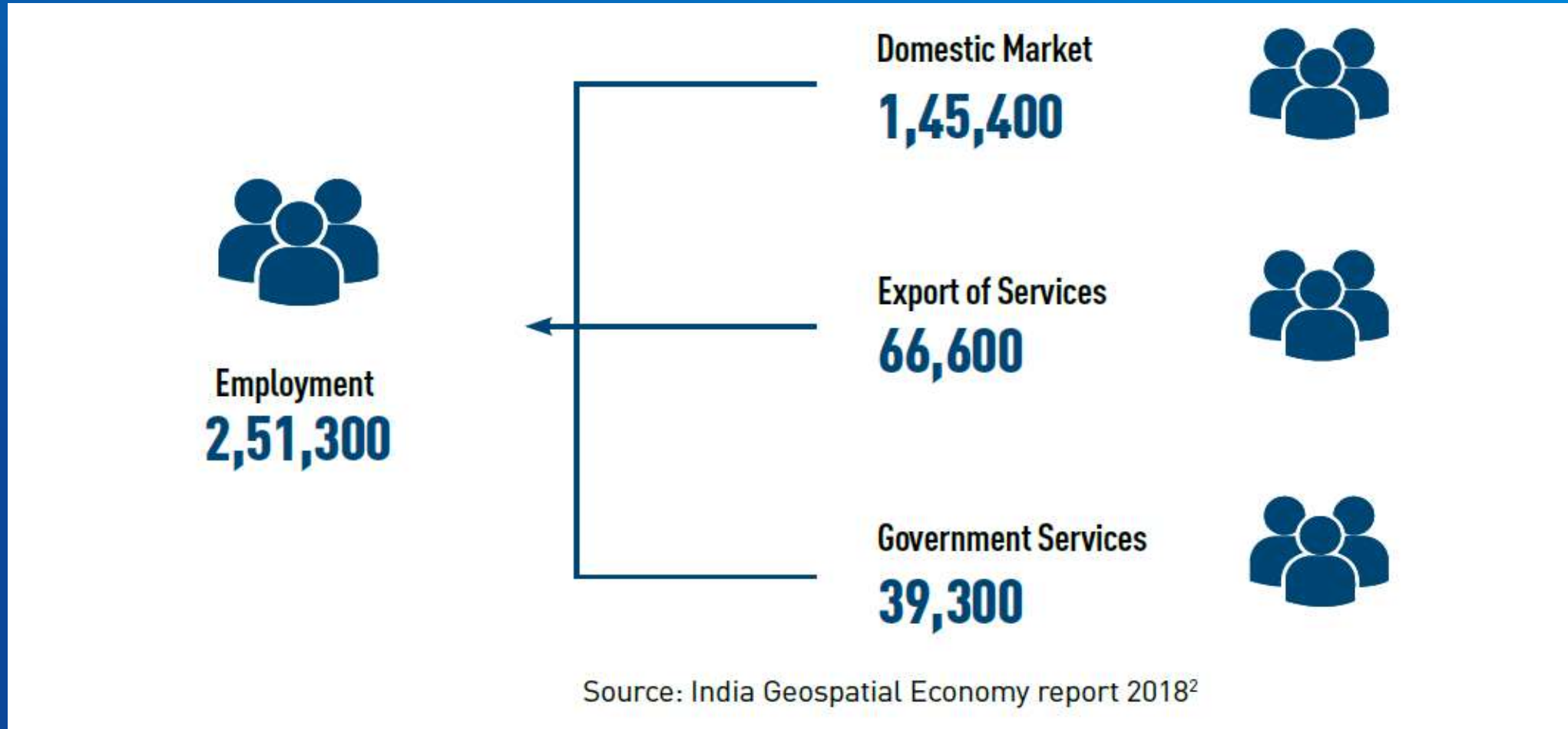
VISION

To make India a World Leader in the Global Geospatial space with the best in the class ecosystem for innovation

“Availability of Skilled Manpower is the Elephant in the Room”

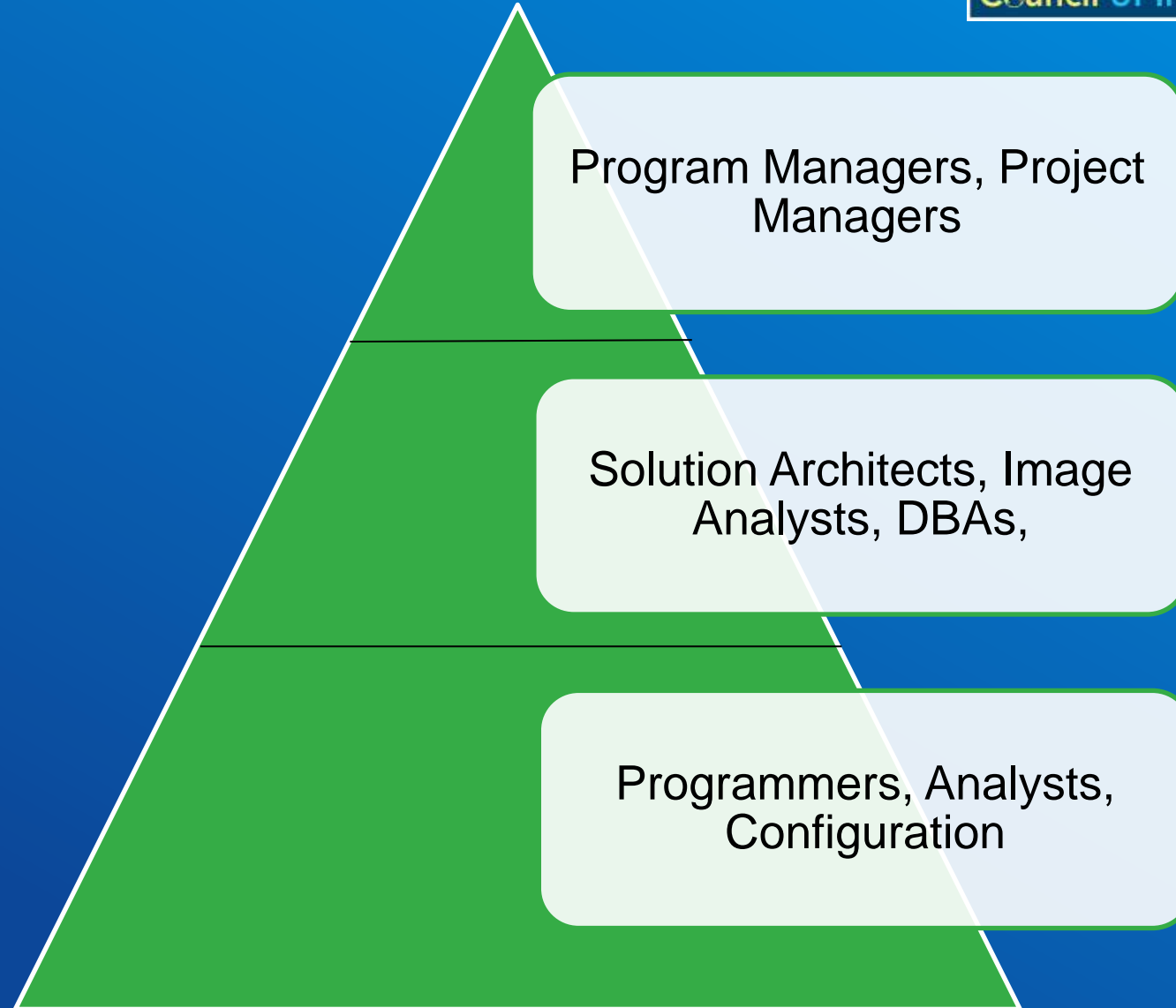
Human Resource Capacity Development is one of the Pillars of the NGP 2022

Employment in Geospatial Industry



Expected to grow to 970,000 by 2025

Skill Pyramid



Skill Pyramid

Project Management,
Domain Expertise

Program Managers, Project
Managers

Domain Knowledge, IT,
Systems Design, RDBMS, COTS
Web/Cloud, AI/ML/DL

Solution Architects, Domain
Experts, DBAs,

COTS, Programming
Languages,

Programmers, Developers

**Acute shortage of high caliber
Geospatial Professionals**

Need for Curriculum Review

Attrition

Challenges

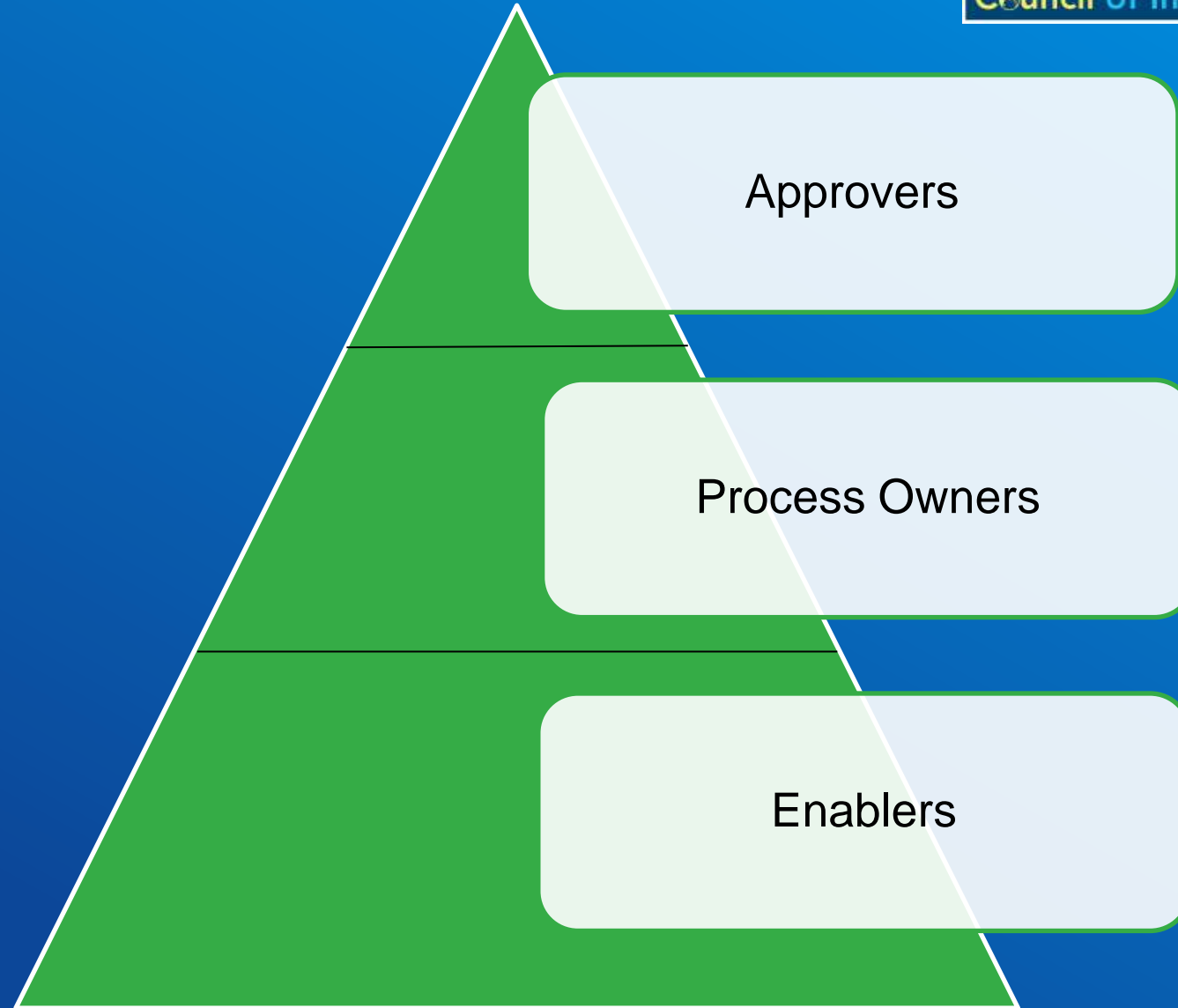
Faculty Enablement

Skill Gap At Entry Level

- Not aligned to contemporary geospatial technology
- Domain knowledge
- IT knowledge

Quality of Intake

Role Holders



Role Holders

Bureaucrats, Mission Directors,
Chief Engineers, CEOs

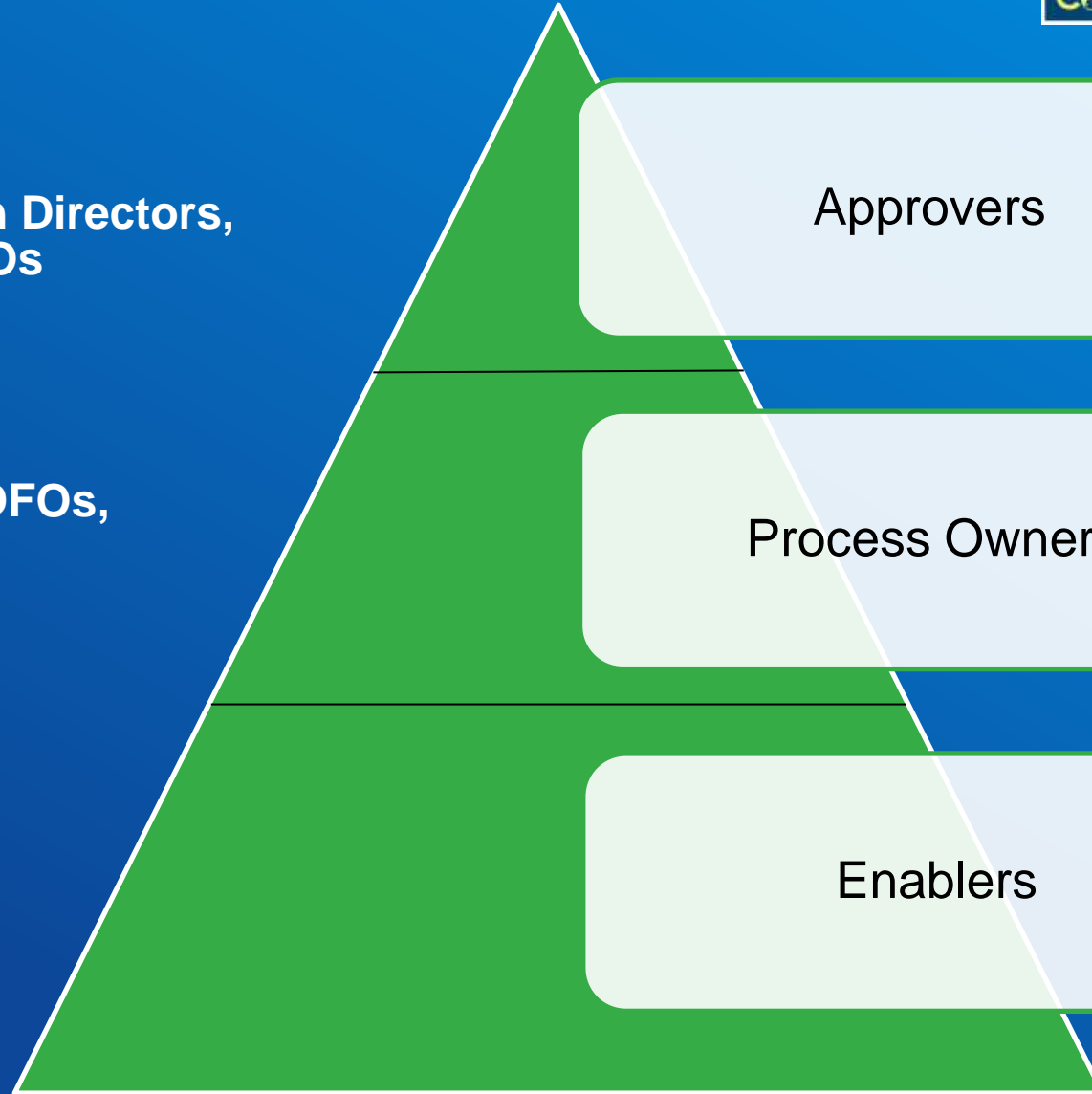
Approvers

Department Heads, DFOs,
Ex Ens, CXOs,

Process Owners

IT, GIS Team

Enablers



Lack of awareness

Value perception

Pain Points

Resistance to Change

- Process Reengineering
- Integration with existing processes/workflows
- Data availability

Need for a Champion

GIS Academia Council of India (GACI)

Objective

To expand and strengthen Geographic Information Science education in India.

Charter

- Advancing GIS knowledge and innovation
- Enhancing the capabilities and skills of students
- Strengthening GIS academic community for interdisciplinary collaboration
- Being a collective voice on the needs and concerns of GIS professionals
- Facilitate industry/Academia collaboration

GACI Structure

Chair



Dr. Shailesh Nayak
Director, NIAS

Co-Chair



Dr. Rajeev Gupta
BITS, Pilani



Rajesh C Mathur
Esri India

More than 70 members comprising:

- Educational Institutions: Universities and colleges offering Geospatial program
- Allied Departments and Institutions

Three Task Forces

Curriculum Template

Create a framework aligned to current technology trends

Faculty Enablement

Enhance faculty's understanding of advanced geospatial technologies

Interdisciplinary
Collaboration

Facilitate geospatial adoption as multidisciplinary subject

Current Status

1st Train the Trainer Program conducted in July jointly in association with IIT Tirupati

- 22 participants
- Winter Program to be hosted at TERI SAS, New Delhi

Curriculum template released for

- M Tech
- B Tech
- MSc
- BSc
- Diploma

Framework for GIS as a Multidisciplinary Subject released



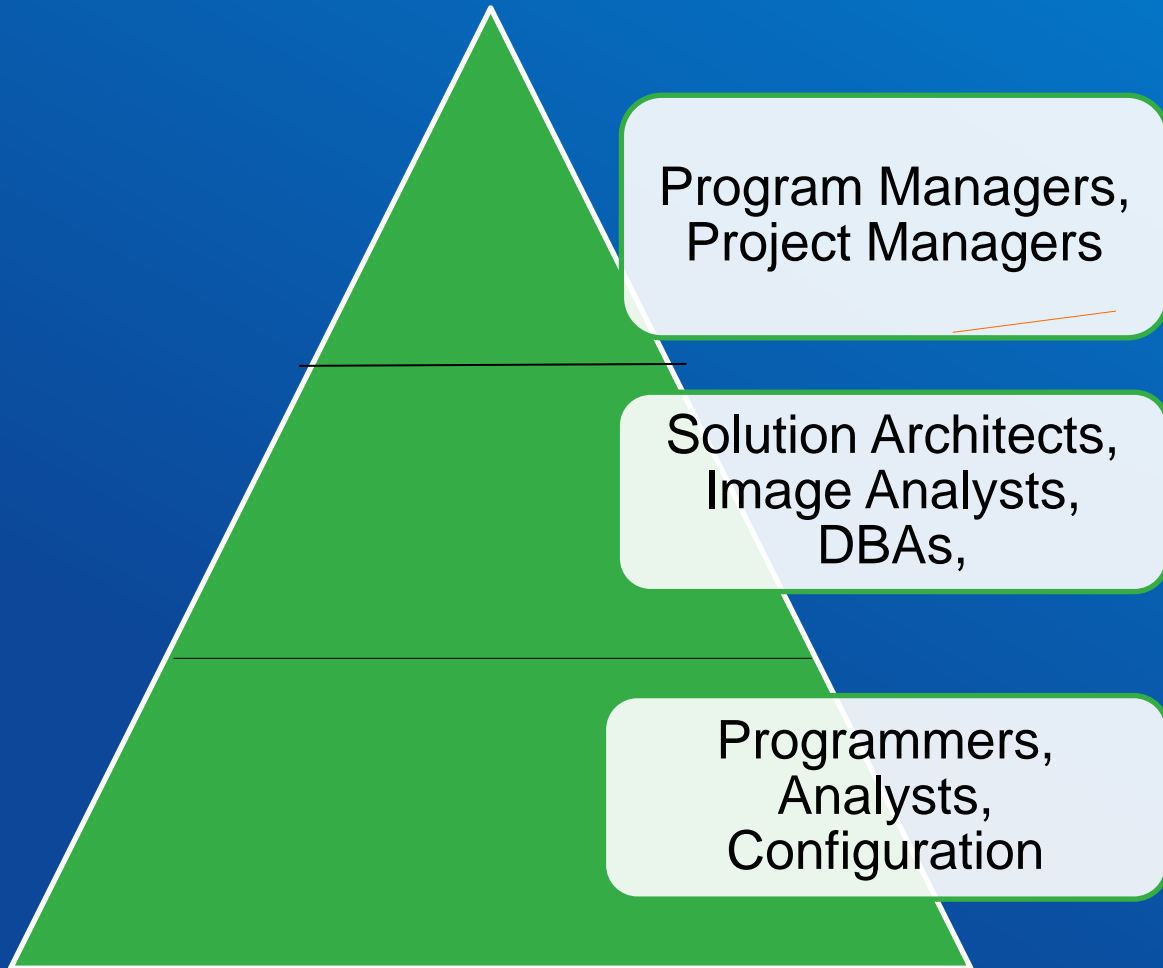
Future Initiatives

- User enablement – program for serving officers in the government
- Start-up support
- Incubation Centres in university campuses
- Webinars, Workshops...
- Build a Future Ready Workforce aligned to National Missions



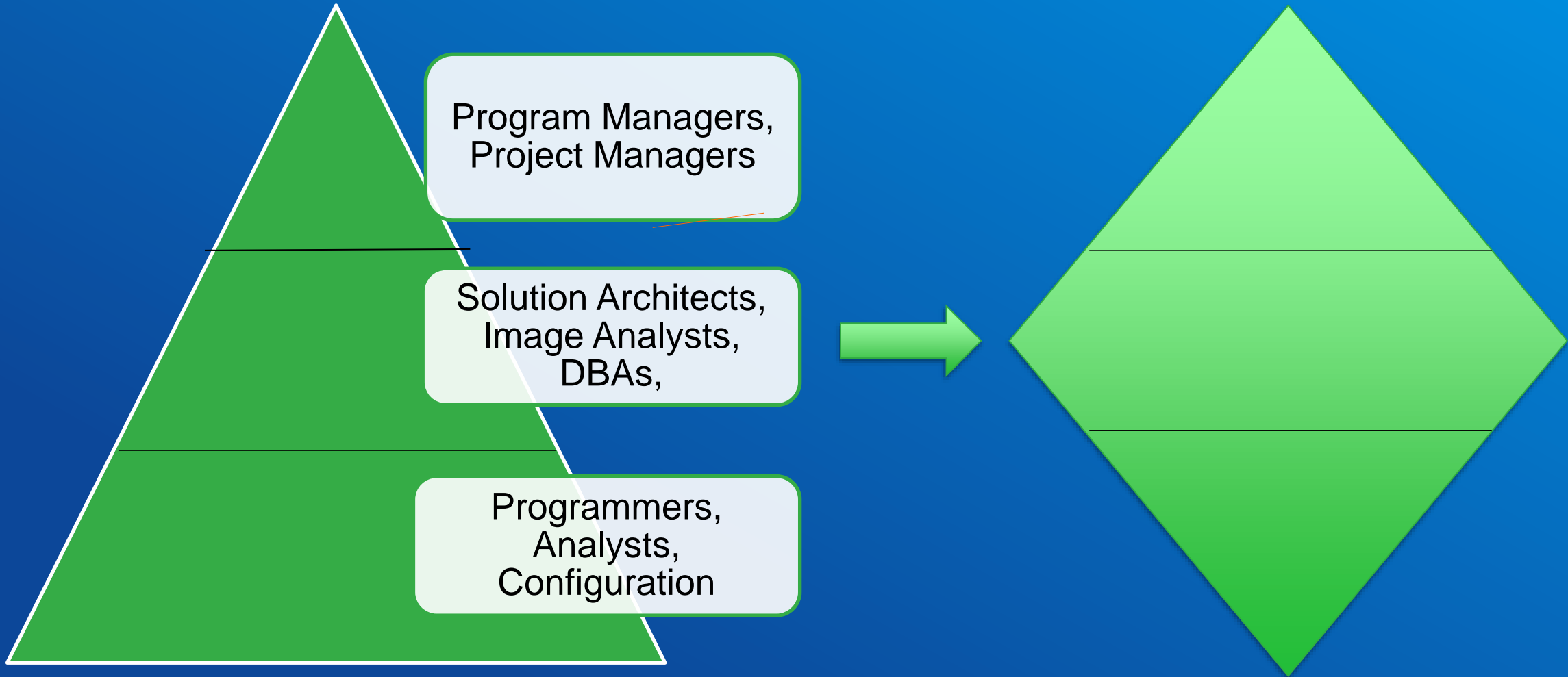
Food for Thought

Skill Pyramid



Artificial Intelligence rearchitecting organization structures

Skill Pyramid to Diamond



Thank you

Questions?



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GACI Overview &
Registration



esri[™] India

THE SCIENCE OF WHERE[™]