

Market and Demand Study (MDS) for Africa 2020-2030

PIDA Webinar

November 24, 2020



Outline of the Presentation

Objective of the Study

Organisation of Tasks

Analyses Conducted

Link to PIDA-PAP 2

Web Visualization Tool

Outline of the Presentation



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Objective of the Study

To examine the capacity gap between the existing regional infrastructure supply and potential demand for regional infrastructure in the four PIDA sectors (energy, transboundary water, transport and ICT) for the period 2021-2030

Outline of the Presentation

Objective of the Study



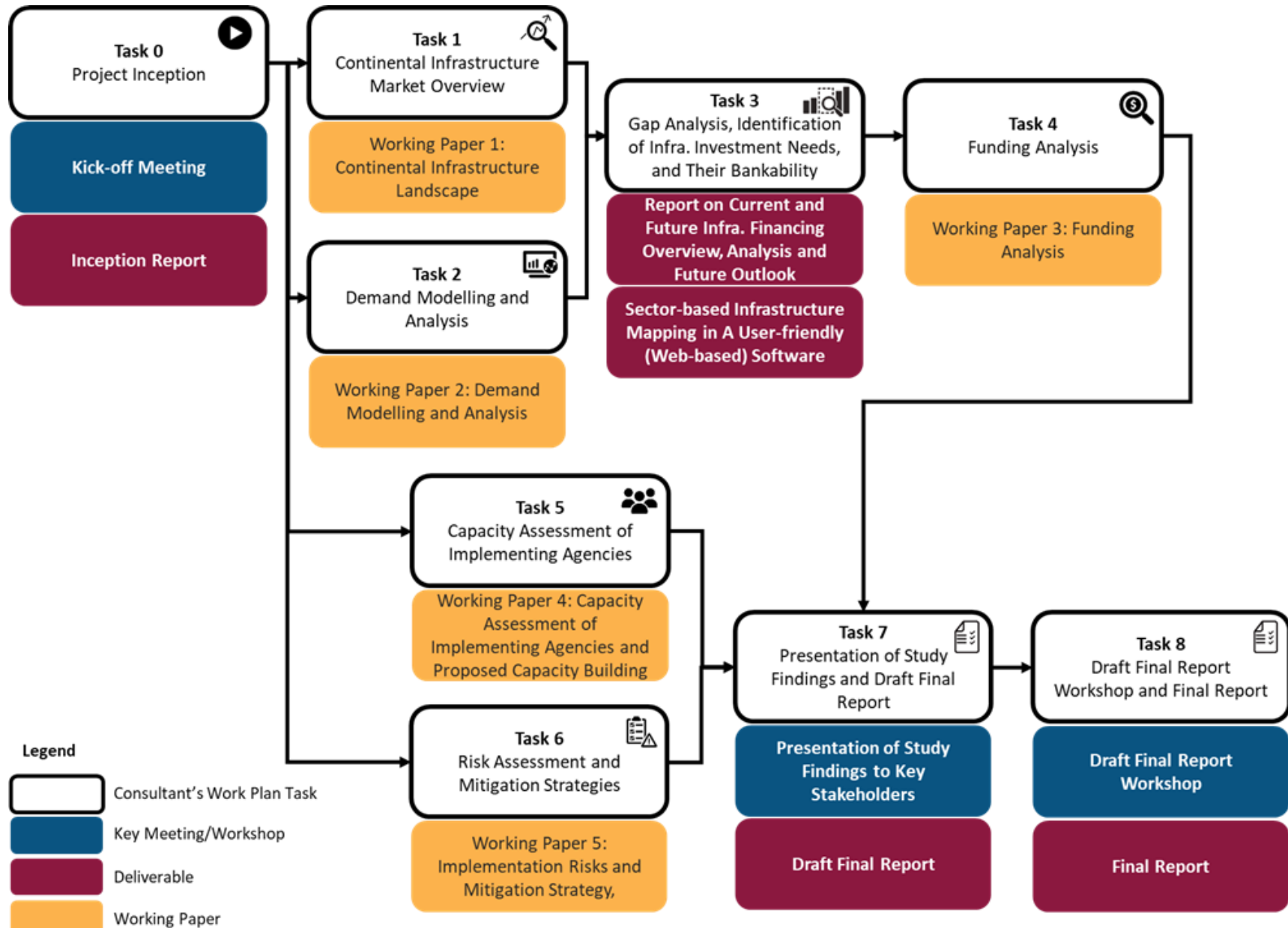
Organization of Tasks

Analysis Conducted

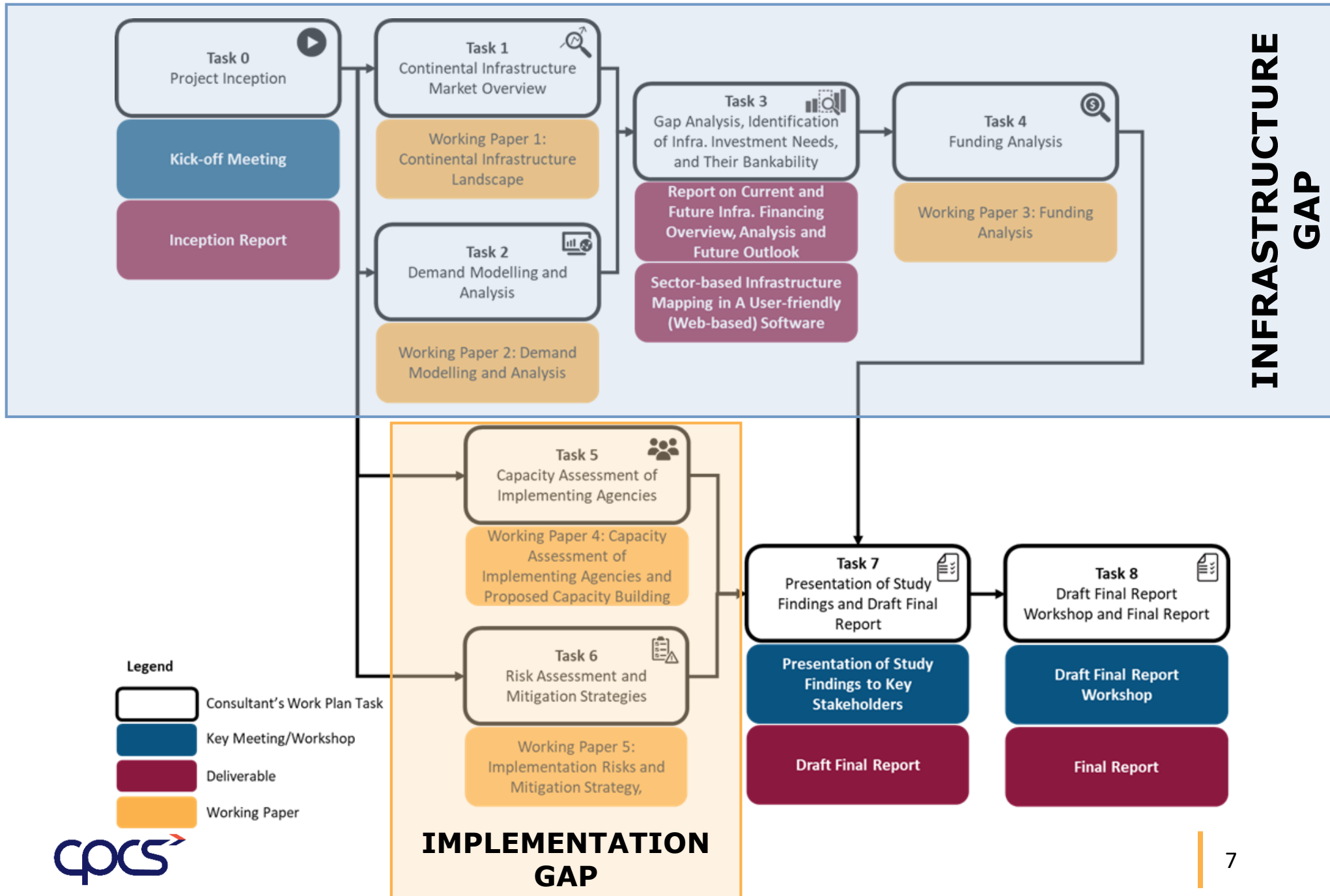
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Organisation of Tasks



Organisation of Tasks – 2 Work Streams



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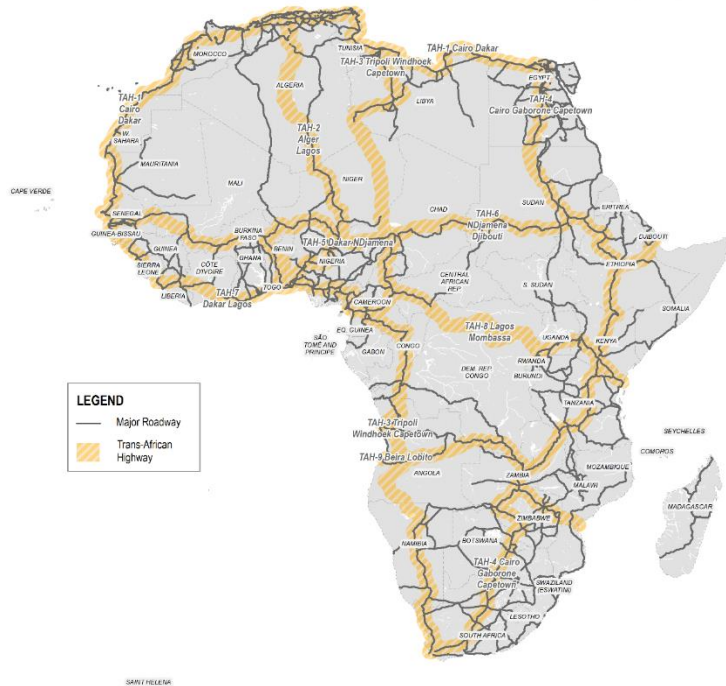
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Existing infrastructure – GIS Mapping

0 500 1,000 2,000 Km

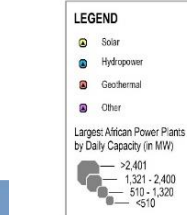


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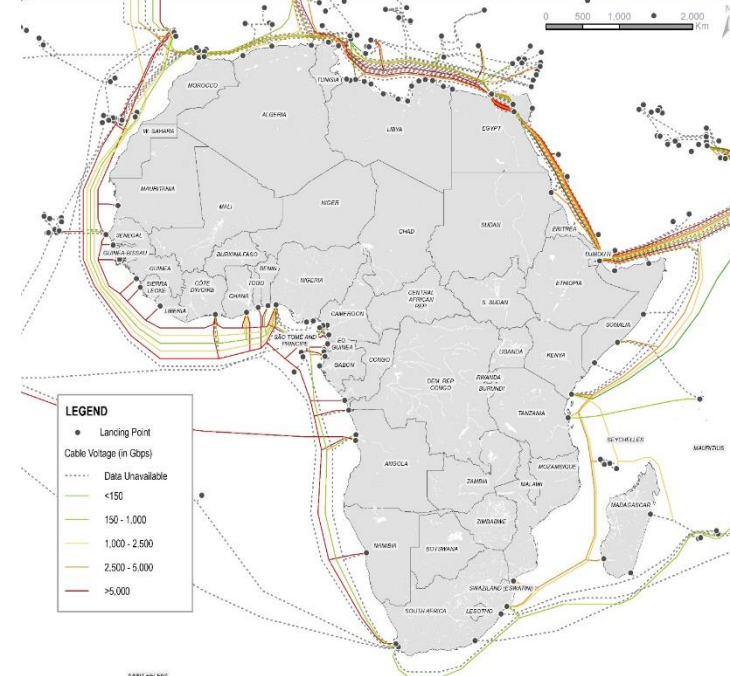


Task 1
Continental Infrastructure
Market Overview

Working Paper 1:
Continental Infrastructure
Landscape

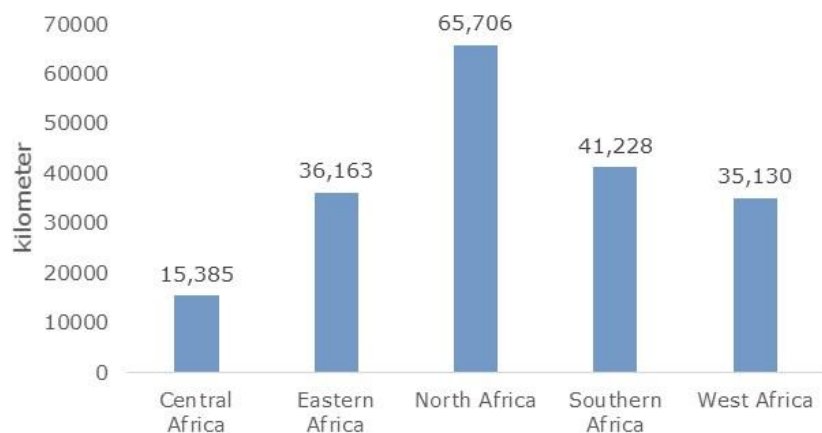


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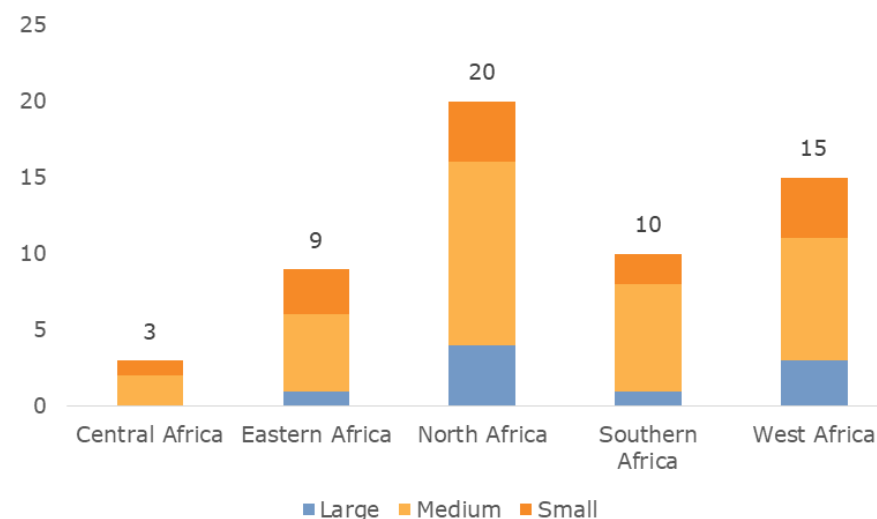


Existing infrastructure – Capacity

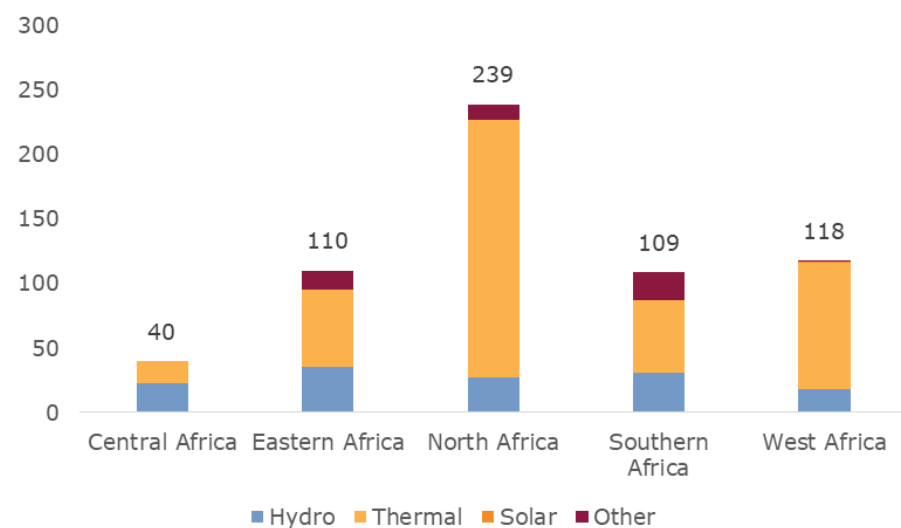
Length of Regional Roads in the Five Regions of Africa



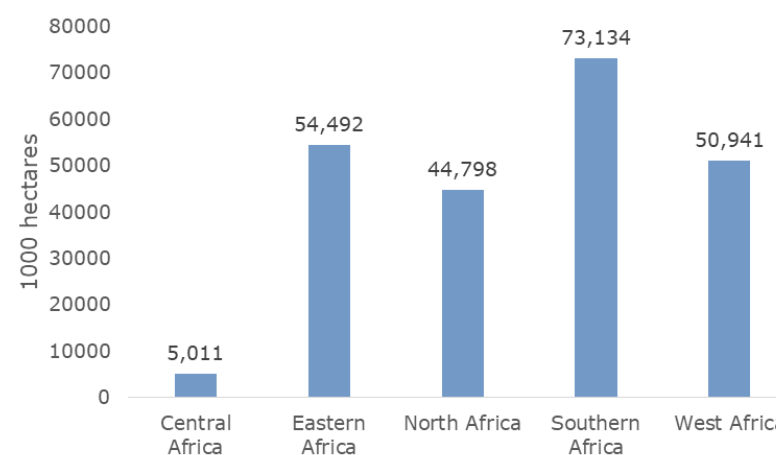
Number of Maritime Ports in the Five Regions of Africa



Number of Power Plants by Type in the Five Regions of Africa



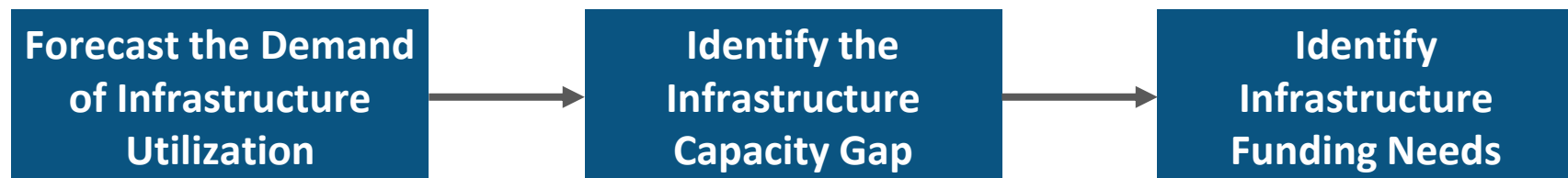
Total Land Areas Equipped for Irrigation in the Five Regions of Africa



Outlook for the demand 2030 - Methodology

Logic of Forecasting the Future Infrastructure Investment Needs

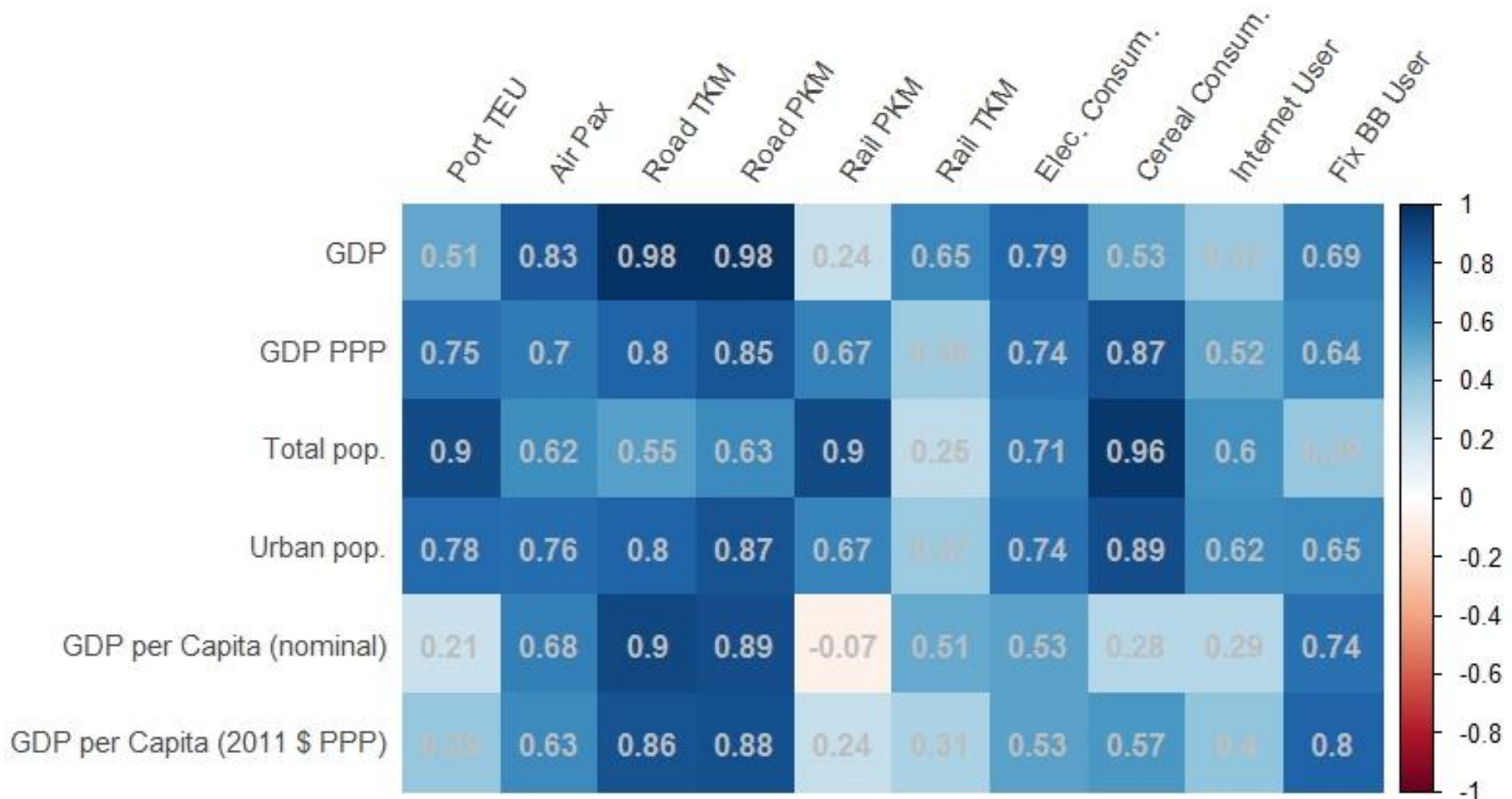
- Infrastructures are built to meet the demands in different **PIDA** sectors such as travel demand, energy consumption demand, internet access demand, water consumption demand, etc.
- Identifying future infrastructure needs rely on forecasting the demand of infrastructure utilization.



Infrastructure Demand Modelling

Correlation Analysis

- Correlation matrix between the historical socio-economic development and the historical infrastructure demands in different sectors.



Baseline and 3 scenarios for the Outlook 2030

BASELINE

Based on socio-economic drivers (GDP, population) and sector specific indicators



Urbanization Scenario

- considering that the urbanization process will contribute to higher demand for all the PIDA sectors

Climate Change Scenario

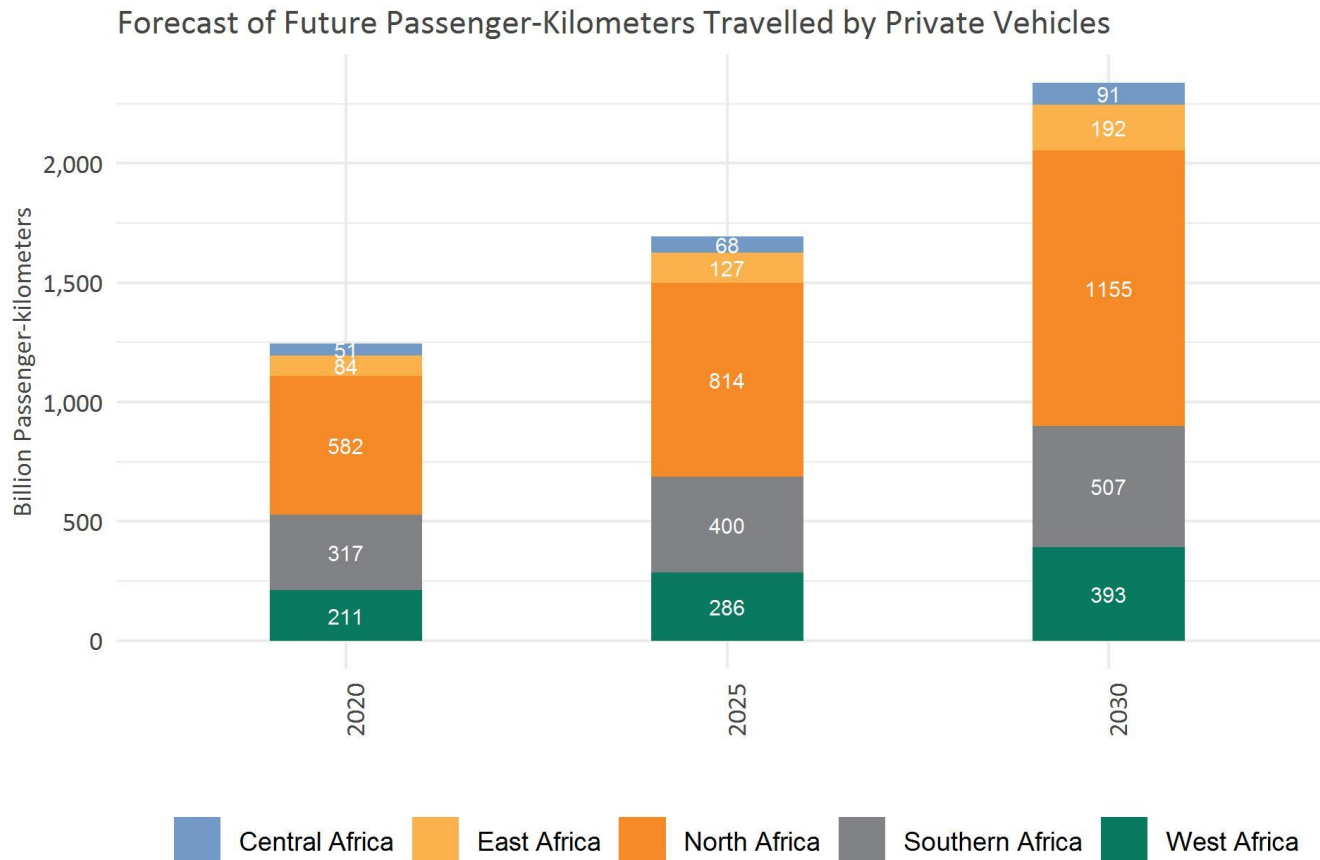
- considering that the climate change will have impacts on the future demands in the PIDA sectors (higher need to maintain infra, higher demand for electricity, etc.)

COVID-19 Scenario

- considering that the COVID-19 scenario will have a short term significant demand shock on the demands in the PIDA sectors

Road Passenger Kilometers

Road passenger-kilometers will continue to grow by **6.5%** annually until 2030.



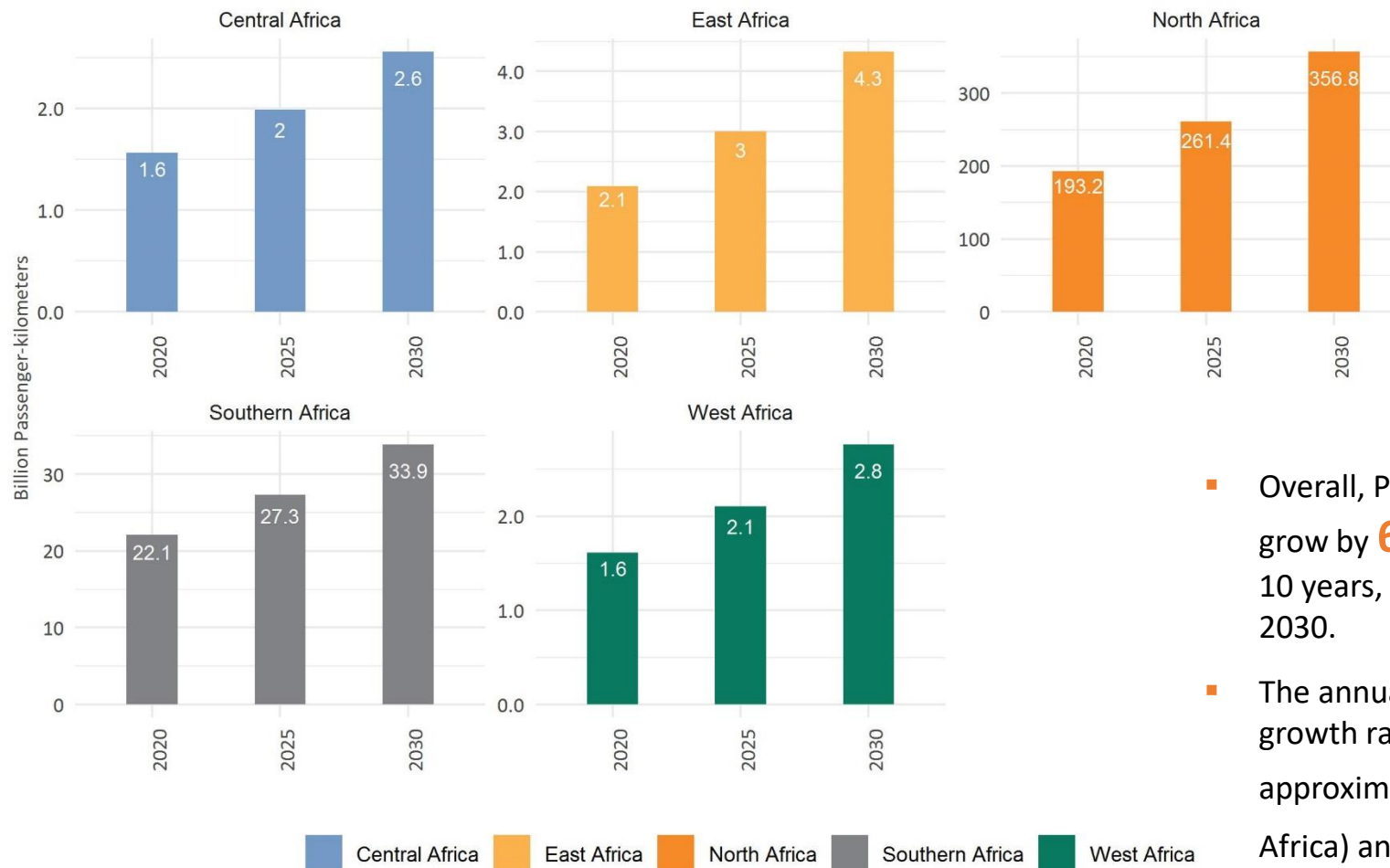
- Continent-wide, PKMs traveled by private vehicles will almost double between 2020 and 2030 (increasing by 6.5% annually on average), reaching 2338 billion PKMs.
- The annual average region-specific growth rates range between approximately **4.8%** (Southern Africa), and nearly **8.6%** (East Africa).

Transport Demand Outlook 2030

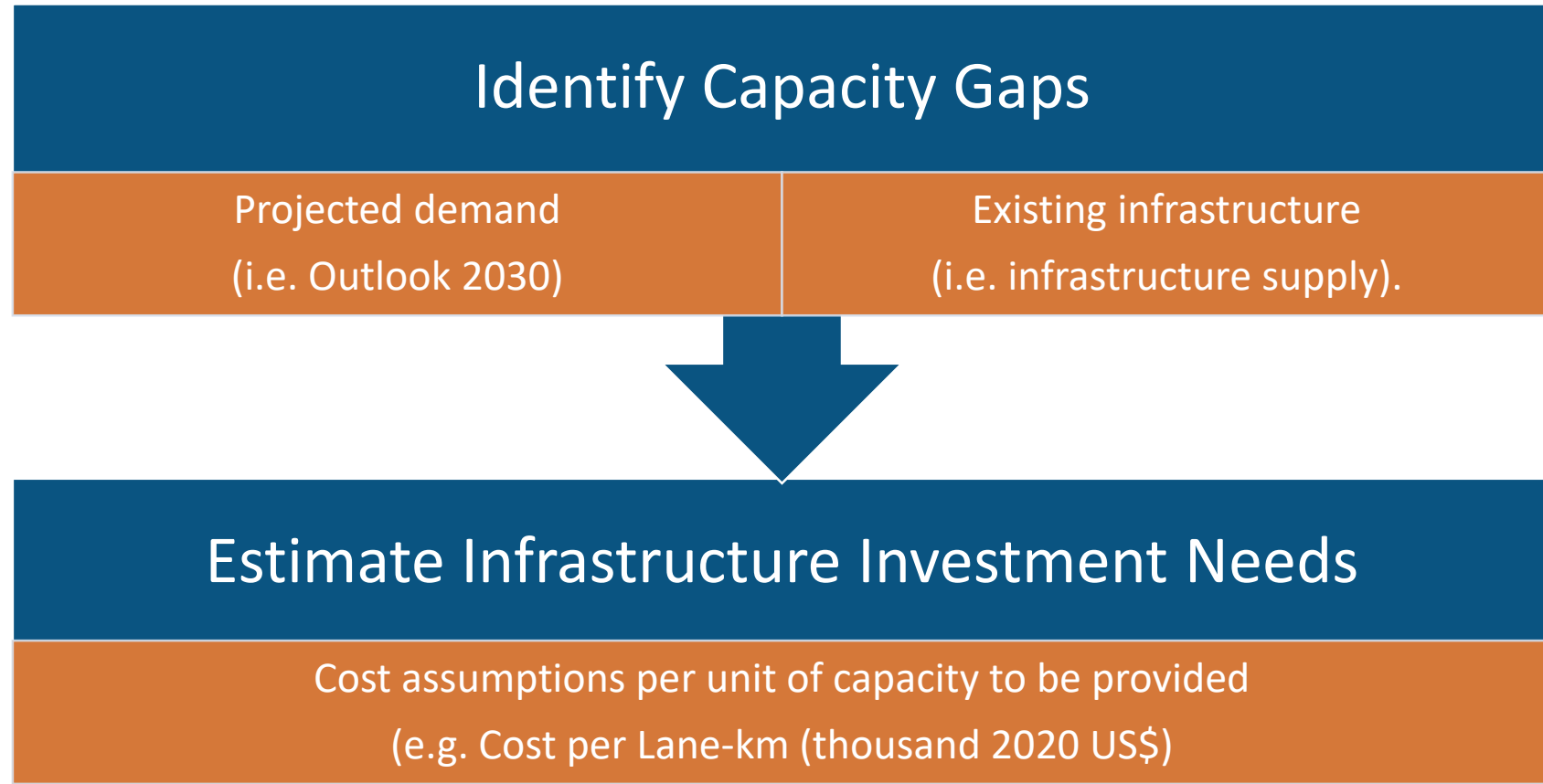
Rail Passenger Kilometers

Rail passenger-kilometers is expected to grow by **6.1%** annually until 2030.

Forecast of Future Passenger-Kilometers Travelled by Railway



- Overall, PKMs traveled by railway will grow by **6.1%** annually in the next 10 years, reaching 400 billion PKMs in 2030.
- The annual average region-specific growth rates range between approximately **4.4%** (Southern Africa) and nearly **7.6%** (East Africa).



Investment Needs estimated by sector (and sub-sector), by region and for each scenario

Sector	Investment Needs (million USD)			
	Baseline	Urbanization	Climate change	COVID-19
Transport	447,881.8	599,018.6	NA	335,793.4
Energy	109,758.7	144,243.9	134,753.9	86,931.8
ICT	107.9	121.0	NA	NA
TWRM	81,579.4	119,664.8	87,055.4	NA
Total	639,327.8	863,048.2	669,798.9	504,412.5

Task 3



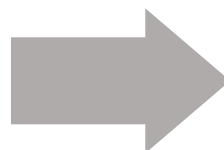
Gap Analysis, Identification
of Infra. Investment Needs,
and Their Bankability

Report on Current and
Future Infra. Financing
Overview, Analysis and
Future Outlook

Sector-based Infrastructure
Mapping in A User-friendly
(Web-based) Software

Estimate the sources of funding for the investment needs

- Mapping of the various sources of funding and financing
- *including Motivations, Considerations and Risk Appetite by Type of Investor*



Align the proposed investments and the available sources of finance

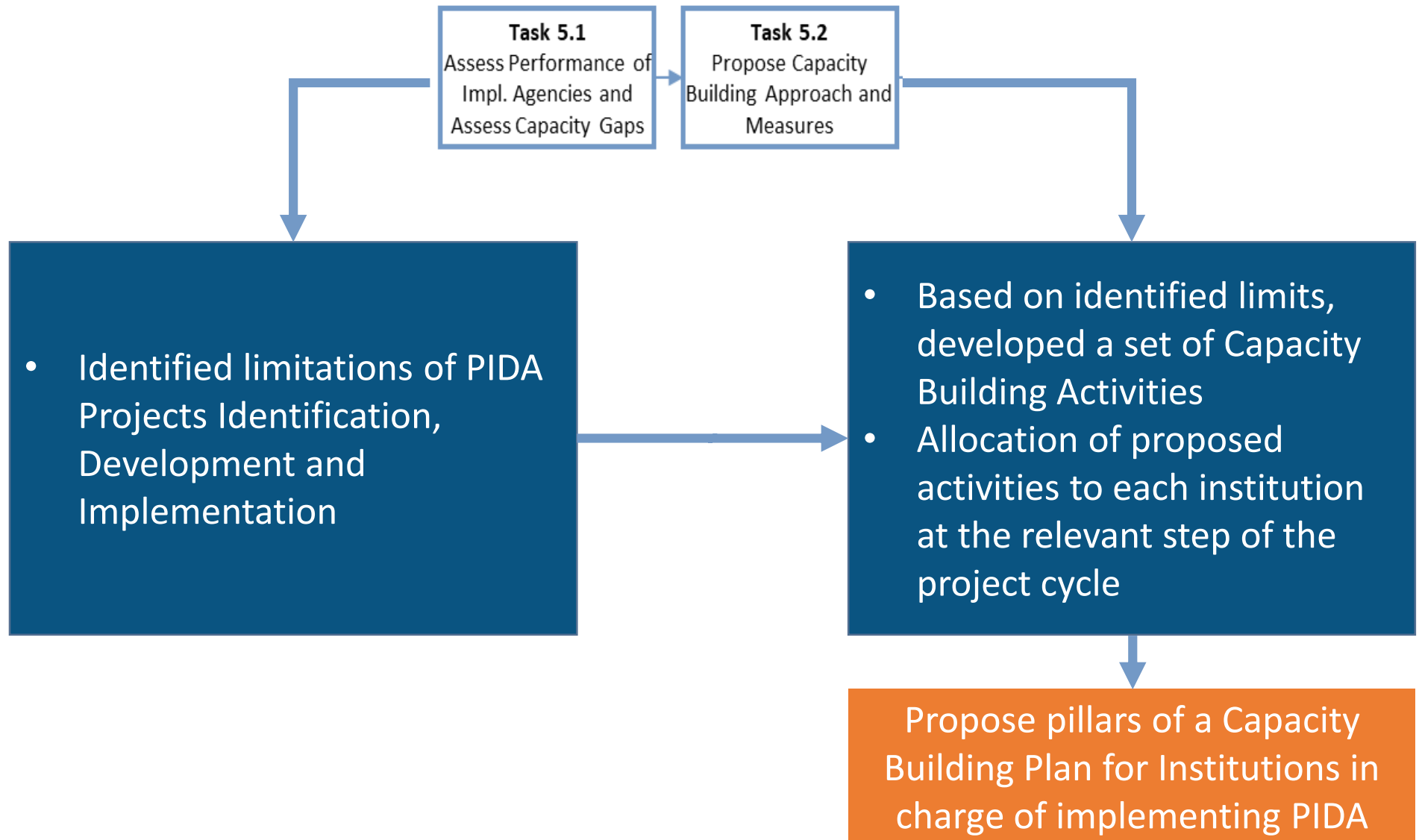
- Formulation of recommendations on the way forward for sourcing and increasing financing for PIDA projects
- *including Financier Sub-Type, Financier Risk Appetite, Estimated Magnitude Available In Africa, Magnitude Possible in near-term (10 years), Investment Time Horizon and Sectoral Risk Acceptability*



Specific analysis of the Environment for Private Sector Financing in Africa

Including specific recommendations to strengthen the PPP enabling environment on the continent

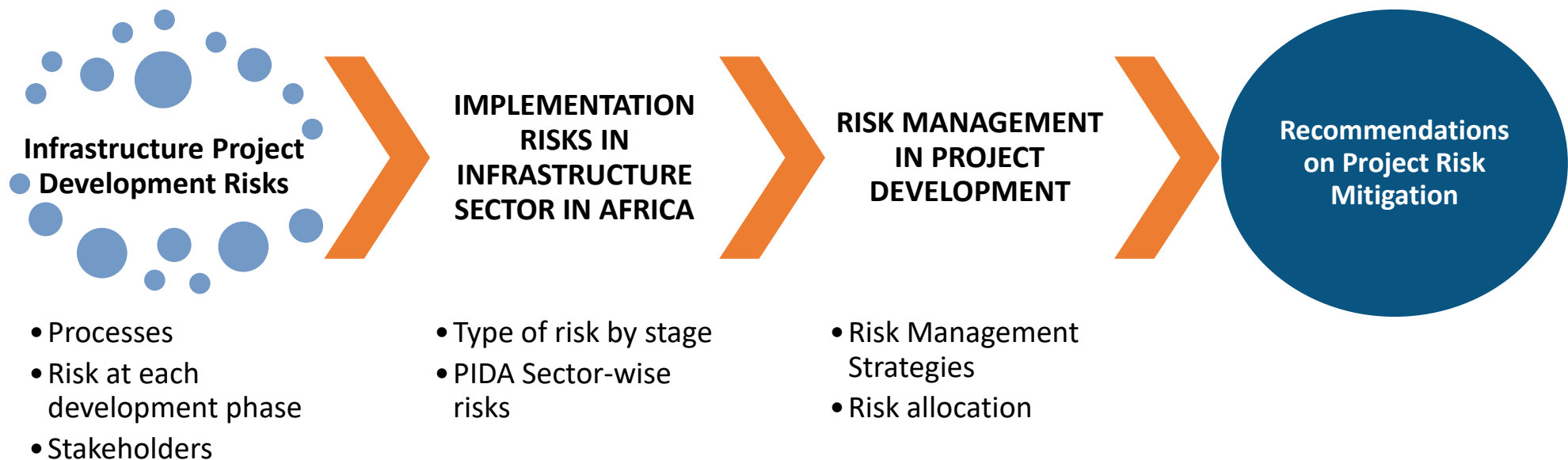
Capacity Assessment and Capacity Building



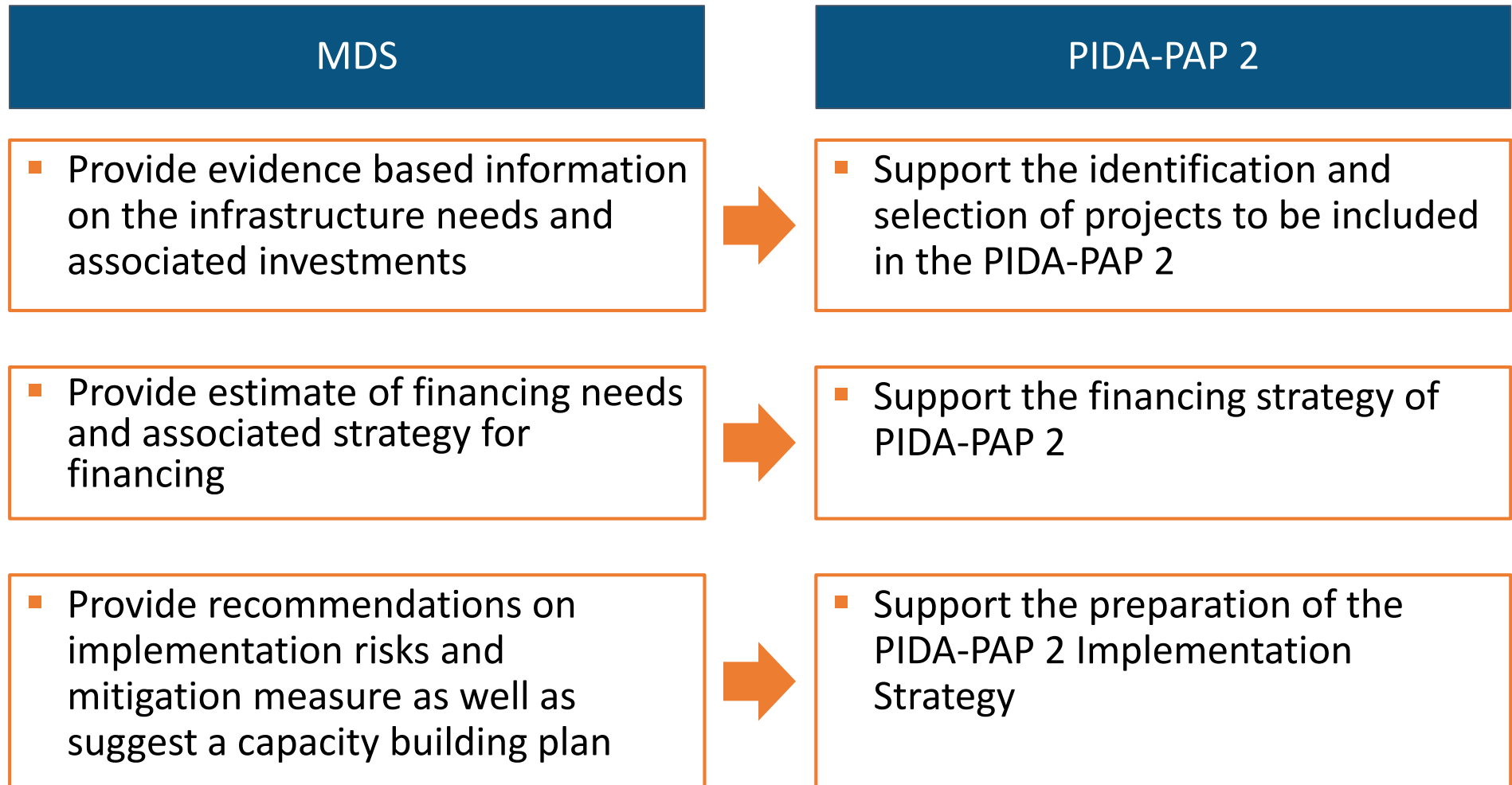
Implementation Risks and Mitigation Strategy

Map regional project implementation risks and their mitigation strategies
to aid future delivery of infrastructure investments

Dakar Financing Summit list of projects as a case studies



Link between the MDS and the PIDA-PAP 2



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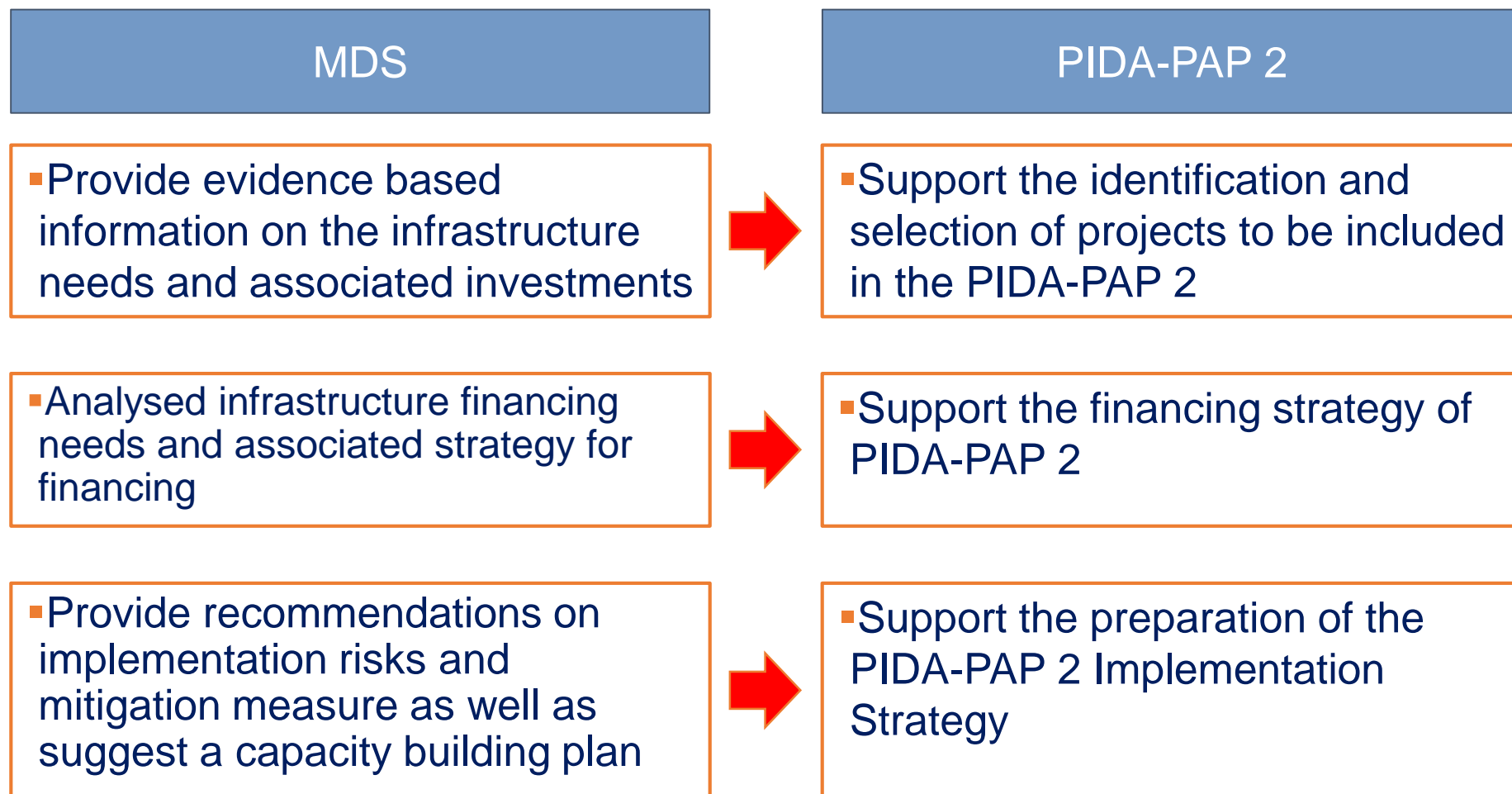
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Link to PIDA-PAP 2

Web Visualization Tool

Key inputs from MDS to the PIDA-PAP 2



Top-Down Demand Modelling and Bottom-Up Project Identification – Financial Needs to 2030

MDS

- Provide evidence based information on the infrastructure needs and associated investments

PIDA-PAP 2

- Support the identification and selection of projects to be included in the PIDA-PAP 2



Region	MDS Projected Financing needs (US Million)
North Africa	204,587
West Africa	101,980
East Africa	187,404
Southern Af.	112,797
Central Africa	32,548

Region	PIDA-PAP 2 Projects CAPEX (US Million)
North Africa	17,553
West Africa	89,278
East Africa	76,277
Southern Af.	28,787
Central Africa	14,469



MDS encompass all financing needs identified in projects submitted by RECs in the identification step of PIDA-PAP 2

- PIDA-PAP 2 is compiling existing projects – new projects will be identified by RECs in the next decade to respond to the infrastructure gaps.
 - Roll over principles of the PIDA-PAP 2 will allow for such updates.
- PIDA-PAP 2 is not the unique solution to bridge the infrastructure gaps – national projects and bilateral initiatives will also be undertaken in parallel by MS

MDS as a foundation of the PIDA-PAP 2 Financing Strategy

MDS

- Analysed infrastructure financing needs and associated strategy for financing

PIDA-PAP 2

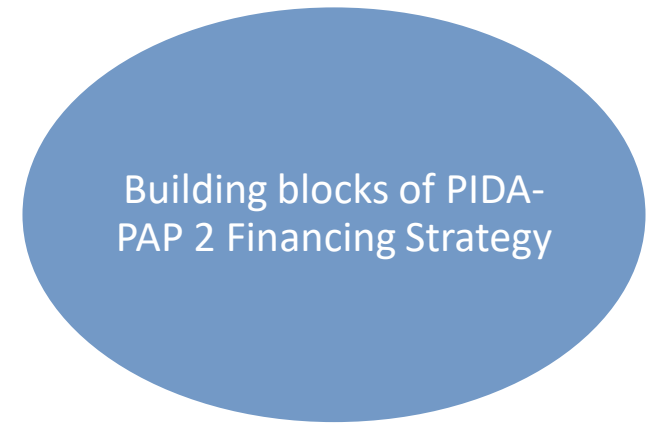
- Support the financing strategy of PIDA-PAP 2



Estimate the sources of funding for the investment needs identified



Formulation of recommendations on the way forward for sourcing and increasing financing for PIDA projects



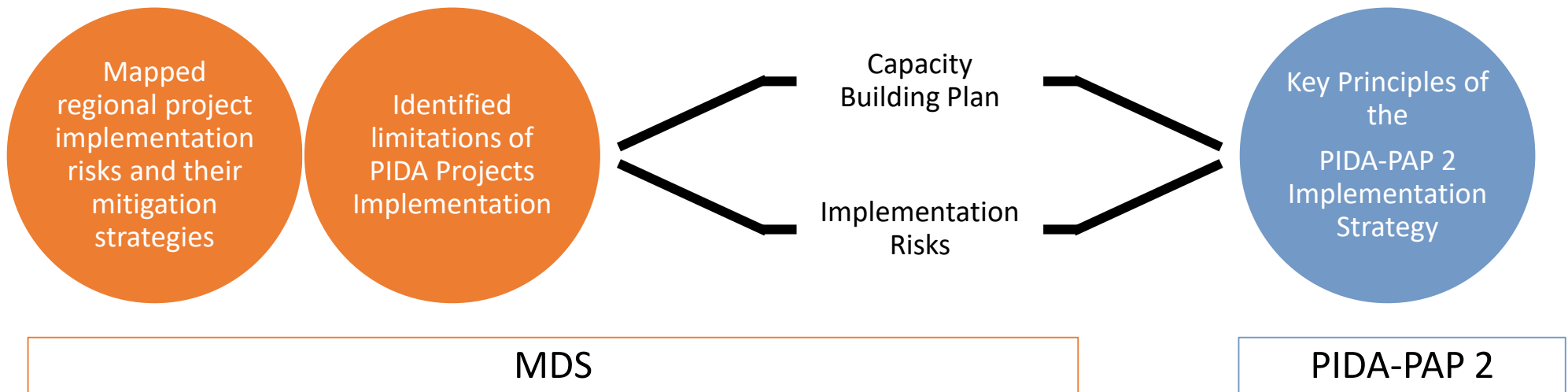
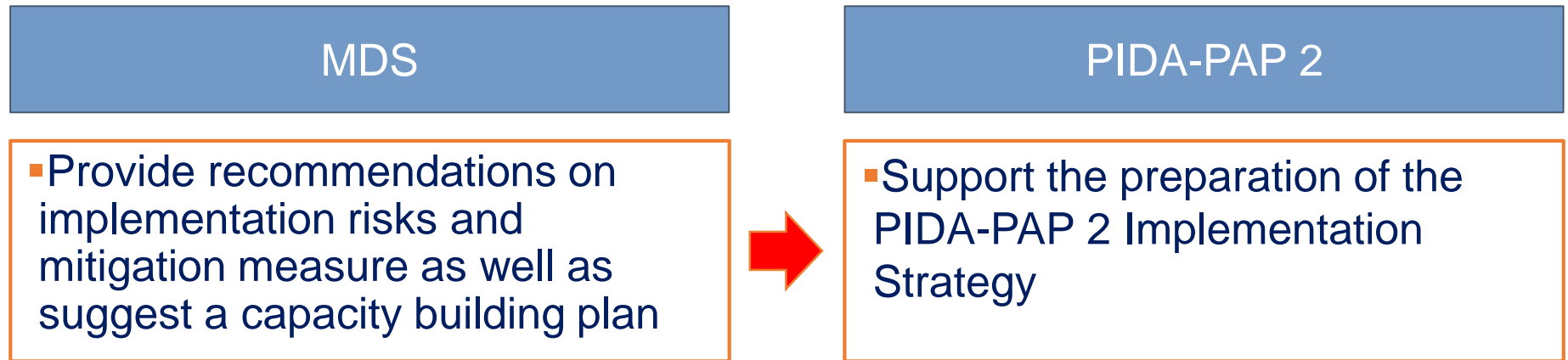
Building blocks of PIDA-PAP 2 Financing Strategy

MDS

Financing Strategy



MDS identified implementation risks, both at project level and capacity level



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Status to date



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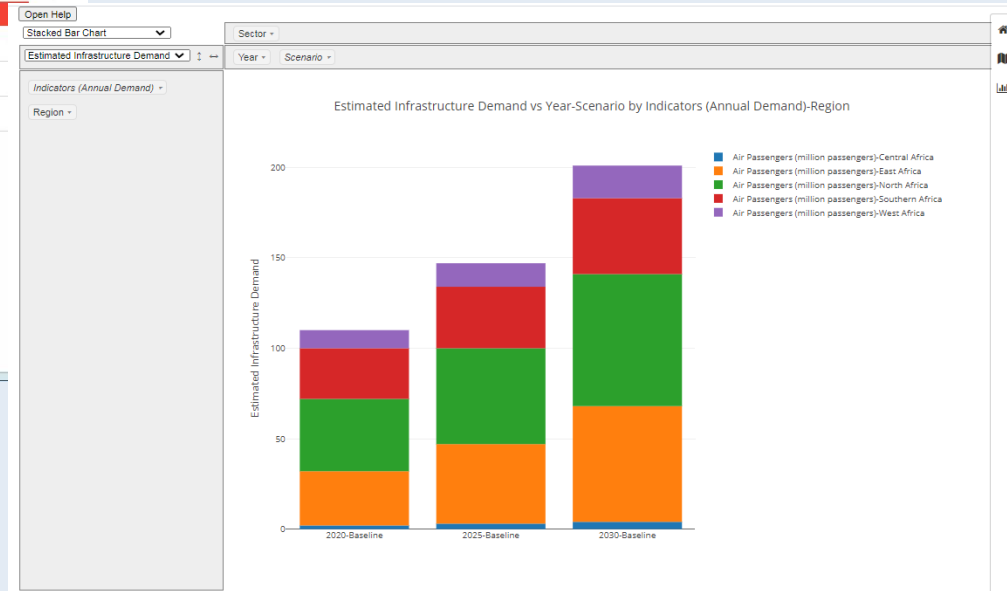
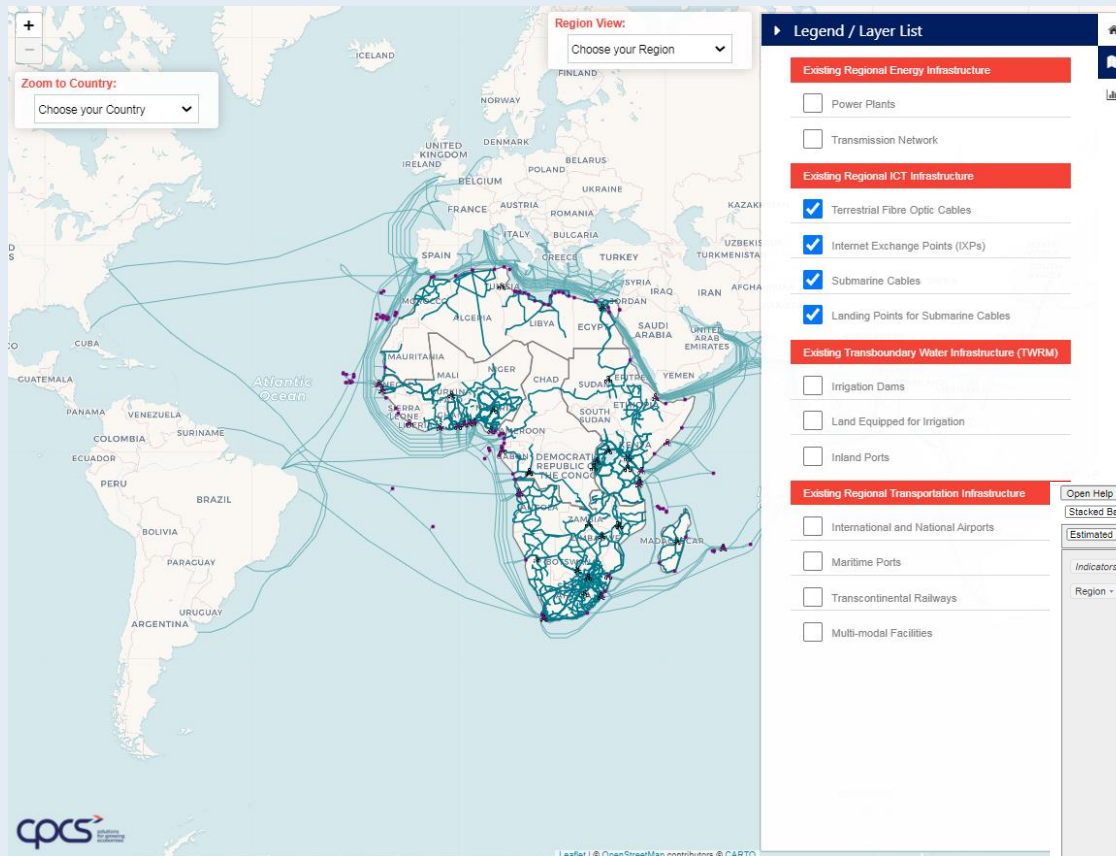
WEB-BASED VISUALISATION TOOL <https://pidamds.cpcslabs.ca/>

- Visualizing existing regional infrastructures in the four PIDA sectors
- Exploring the existing and future infrastructure demand, capacity gaps and expected investment needs under various growth scenarios across all sectors and regions.



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- Exploring the existing and future infrastructure demand, capacity gaps and expected investment needs under various growth scenarios across all sectors and regions.



Thank you!



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