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INFORMATION NOTE

From:	General Secretariat of the Council
To:	Delegations
Subject:	Global Gateway workshops for Latin America-Caribbean and Asia-Pacific

Delegations will find in the annex a presentation given by an external stakeholder, on behalf of TIEG (Transport & Infrastructure Expertise Group), at the meeting of RELEX Counsellors – Horizontal Questions on April 21, 2023. This presentation and the views expressed therein are solely those of the third party it originates from. This document cannot be regarded as stating an official position of the Council. It does not reflect the views of the Council or of its members.

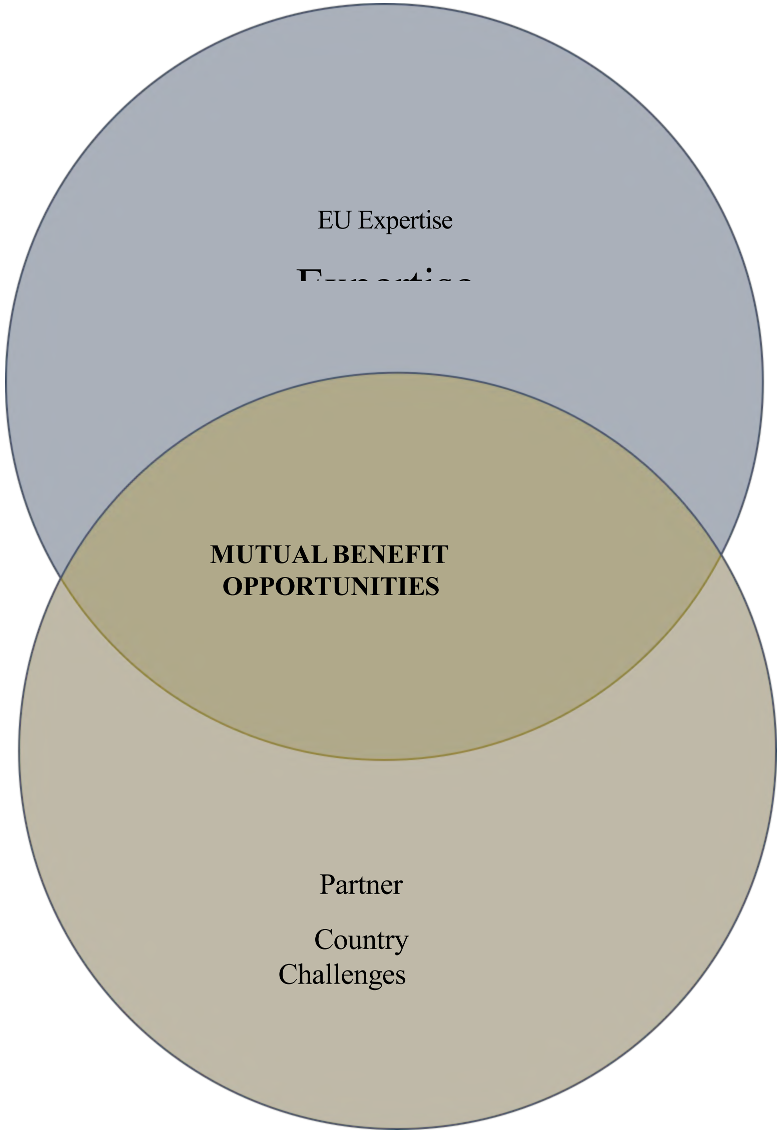
ANNEX

SIEA-2018-12860

Global Gateway workshops for Latin America-Caribbean and Asia Pacific

About the project

- **An external view on potential opportunities** for **the Global Gateway initiative in Asia-Pacific and Latin America Caribbean**.
- The research identifies **potential Global Gateway investments addressing EU and ASIAPAC challenges, proposing strategic initiatives for mutual benefit.**
- **Focus on identifying opportunities for the EU private sector**
- The report supports EU efforts by **highlighting opportunities found through data analysis and European expertise.**
- Findings can facilitate **engagement with regional companies and foster a "Team Europe" perspective.**
- **The work can assist the European Union's ongoing efforts**, including in Brussels, Delegations, and Member States' systems, in the following ways:
  - Identifying potential Global Gateway projects from existing work.
  - Facilitating the targeting of future EU initiatives to create strategic partnerships in the regions.
  - Supporting outreach to interested stakeholders, such as the private sector.



Key objectives

- Identify potential **investments to address challenges faced by the EU and partner countries.**
- Propose strategic initiatives to **create mutual benefit for the EU and partner countries.**
- Contribute towards **Global Gateway narratives for respective countries.**
- Assist the EU in **diversifying dependencies** and creating **opportunities for its private sector.**
- Provide the EU with potential project ideas to **leverage the EU's strengths.**

6 Global Challenges in more detail

- Demand for global natural resources is rising.
- The EU is dependent on a limited number of suppliers for these raw materials
- Europe risks being left out in the quest for critical natural resources.

NATURAL RESOURCES

- Key supply chains are fragile and need to be strengthened.
- The negative impacts of disruptions caused by geopolitical tensions and global pandemics need to be mitigated.
- Supply chain disruptions contribute to an increase in inflation.

SUPPLY CHAINS

- Global demand and scarcity for food is rising, Europe needs to secure supplies.
- Climate change is negatively affecting food production.
- FAO estimates that to meet demand by 2050, food production must rise by 70%.

FOOD SECURITY

- High-speed innovation comes with numerous emerging risks for nations, businesses, and society in general.
- Criminal and/or politically driven cyberattacks can have significant national and business security implications.
- Data storage has few boundaries. A high level of trust in data flow and storage is crucial.

TRUSTED DIGITAL ENVIRONMENT

- There is an exponentially increasing global demand for energy.
- To mitigate the negative impact on climate change, this higher energy demand needs to be met with renewable energy.
- To provide increased access to power there is a need for improved sustainable energy infrastructure.

ENERGY ACCESS

- Various public and private sectors in the EU suffer from limited human resources.
- According to the EC, the largest shortages are reported in the IT, health, manufacturing, construction, and services sectors.
- Access to skilled workers is generally considered as a deterrent for European businesses to enter less developed markets.

WORKFORCE DEVELOPMENT

Process Overview

STEP 1

Analysis of 6 core themes that reflect some of the EU key strategic interests.

STEP 2

Identification of sustainable opportunities that are aligned with EU values and its private sector's areas of excellence.

STEP 3

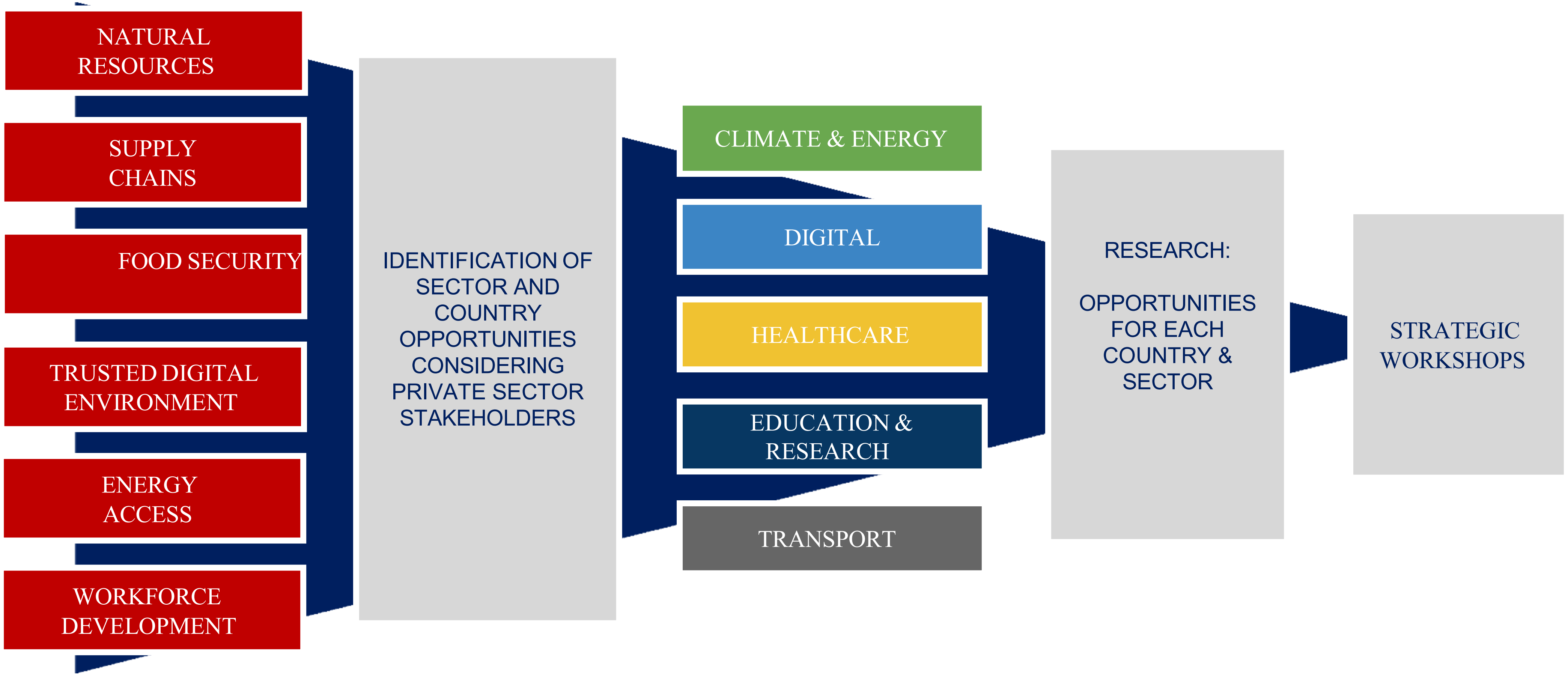
Assignment of the identified opportunities under the Global Gateway sectors.

STEP 4

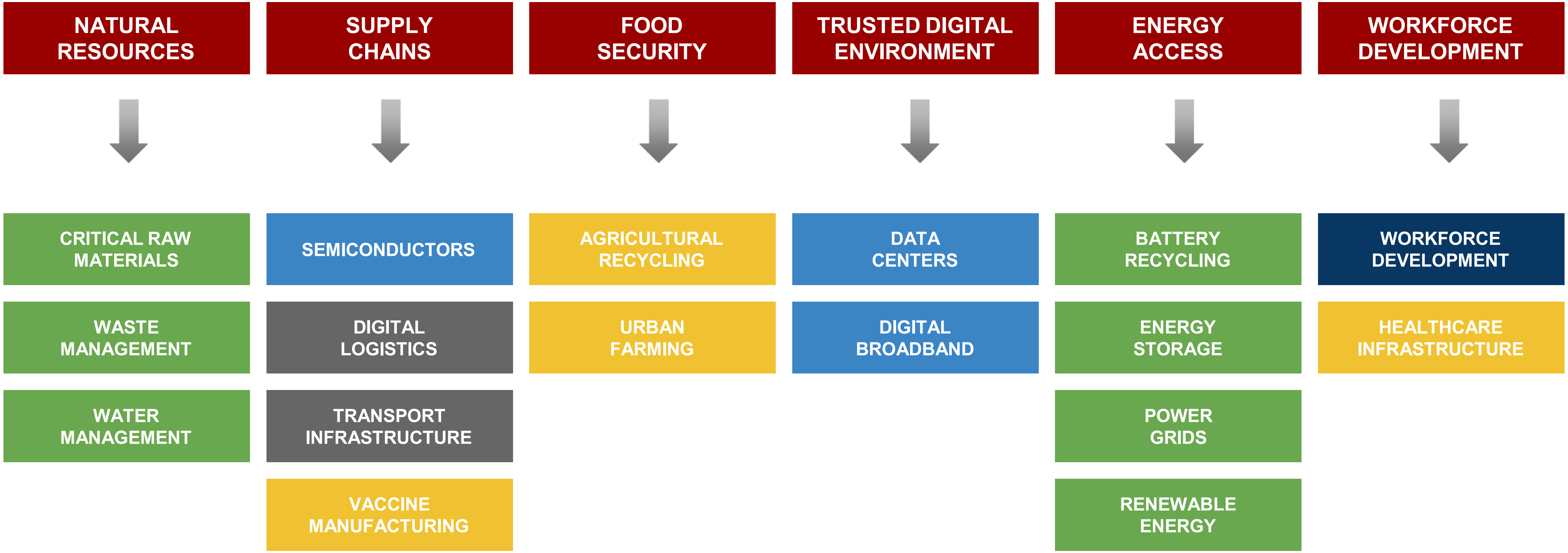
Identification of countries with potential opportunities, assess the local competitive landscape, and determine ways for the EU private sector to participate.

STEP 5

Presentation of the research findings to the EC + EEAS during a senior level workshop.



Overview - Potential Strategic Global Gateway Opportunities



This infographic shows how the 6 global challenges have influenced investment opportunities within the 5 main Global Gateway sectors.

The selection process included using several rigorous criteria such as:

- Environmental sustainability
- European excellence
- Evidence-backed
- Mutual benefits

Overview - Potential Strategic Global Gateway Opportunities

CLIMATE & ENERGY

HEALTH

	Solar energy	Wind energy	Geothermal energy	Hydro energy	Green hydrogen	
	Waste management	Energy storage	Subsea power cables	Power grid	Waterways	
Agricultural recycling	Urban farming	Water management	Battery recycling	Virtual powerstation	Port upgrades	Railways
Hospitals	Vaccine production	E-Health	Workforce development	Semiconductors	Digital logistics	Roads
	Health insurance	Raw materials prospection	Raw materials prospection & refining	5G networks	Data centers	
		Satellite broadband	Submarine broadband	Terrestrial broadband		

TRANSPORT

EDUCATION & RESEARCH

DIGITAL

Example of mutual benefits

Benefits for the EU

- Vaccines: access to safe, effective, and high-quality medicines at an affordable price.
- Semiconductors: ensure sufficient access to chips and other key technological components.
- Storage space: secure higher capacity to mitigate against supply chain disruptions.
- Trade facilitation: Reducing trade costs is essential for more efficient and sustainable global value chains.

SUPPLY CHAINS

Benefits for partner countries (infrastructure + jobs)

- Increased know-how and excellence for the local pharmaceutical sector.
- EU support to increase semiconductor production infrastructure.
- Increased storage infrastructure to increase local production and exports.
- Digital trade facilitation increases a country's competitive advantage on the global market

☑ Climate & Energy Digital

☑ Health

☑

☑ Education & Research

☑ Transport

Private sector considerations

- In identified countries with competitive markets, **EU firms could collaborate with local companies through joint ventures or private-public partnerships.**
- Collaboration should be based on **European companies providing financial and technical support** while **local companies contribute knowledge of the territory, legal and regulatory environment, and local networks.**
- **A comprehensive strategy is needed to engage the private sector** in the EU and partner countries.
- The EU's private sector faces competition from **China's Belt and Road Initiative** and must prove its value by delivering on promises of quality and sustainability.
- The private sector must **balance profitability and sustainability** for long-term success.
- Investments must be **achievable within an acceptable timeframe.**
- **Collaboration between governments, businesses, and civil society organizations is crucial for success**, and the private sector must maintain transparency and good governance to build trust with stakeholders.
- The EU's private sector faces challenges complying with **complex regulatory and legal frameworks** in the EU and partner countries, and the EU needs to play a policy role to support its private sector.
- Geopolitical risks such as political instability, trade disputes, conflicts, or unforeseen events can impact project success and investment safety in partner countries.

6 ASIA-PACIFIC

Potential Strategic Global Gateway Opportunities - ASIAPAC REGION

Potential investment opportunities across countires and territories	Australia	Bangladesh	Bhutan	Cambodia	India	Indonesia	Japan	Laos	Malaysia	Mongolia	Myanmar	Nepal	New Zealand	Pakistan	Papua New Guinea	Philippines	Singapore	South Korea	Sri Lanka	Thailand	Vietnam	Total
Climate- Critical Raw Materials Prospection	■				■	■			■					■	■	■				■	■	9
Climate - Raw Materials Exploration & Refining	■				■	■			■					■	■	■				■	■	9
Climate - Waste Management			■					■		■	■	■	■	■	■	■			■			10
Climate - Water Management				■	■			■		■	■	■		■	■							8
Digital - 5G Networks	■					■	■		■			■	■	■		■	■				■	10
Digital - Broadband Satellite								■	■			■			■							4
Digital - Broadband Submarine Cable		■													■							2
Digital - Broadband Terrestrial		■	■	■		■		■		■	■	■										8
Digital - Datacenters			■	■				■		■	■	■		■	■				■			9
Digital - Semiconductor production	■				■				■							■	■					5
Education - Workforce Development					■									■		■			■		■	5
Energy - Battery recycling	■				■								■									3
Energy - Power grids		■		■	■	■		■	■		■	■		■	■	■			■	■	■	14
Energy - Renewables - Geothermal	■				■	■	■		■		■	■		■	■					■	■	11
Energy - Renewables - Green Hydrogen				■					■	■		■	■									5
Energy - Renewables - Hydro	■			■	■	■	■	■	■		■	■		■	■						■	12
Energy - Renewables - Solar	■	■			■	■	■		■		■			■		■				■	■	11
Energy - Renewables - Wind		■		■		■			■					■		■				■		7
Energy - Storage		■	■		■	■					■	■		■	■							8
Energy - Subsea Power Cables	■				■	■	■		■						■	■	■	■	■			10
Energy - Virtual Power Plants		■		■	■	■		■	■		■	■		■	■	■			■	■	■	14
Health - Agricultural recycling		■			■	■								■						■	■	6
Health - E - health		■		■	■	■			■	■	■	■		■	■				■	■	■	13
Health - Hospitals	■						■										■	■				4
Health - Insurance		■		■	■	■				■	■	■		■	■	■						10
Health - Urban Farming			■					■		■												3
Health - Vaccine production	■	■				■	■		■					■		■	■			■	■	10
Transport - Digital logistics	■	■		■	■	■		■	■	■	■	■		■	■				■	■	■	15
Transport - Port upgrade	■	■		■	■	■		■	■		■			■	■				■	■	■	13
Transport - Railways	■	■		■	■	■		■	■	■	■	■		■	■				■	■	■	15
Transport - Roads	■	■		■	■	■		■	■	■	■	■		■	■				■	■	■	15
Transport - Waterways	■	■		■	■	■		■	■		■			■	■				■	■	■	13
Total	16	16	5	15	21	21	7	14	20	11	17	17	4	23	20	13	5	2	12	15	17	

Example - Investment packages for mutual benefits

Where can Europe secure more cobalt supplies?

- Australia
- China
- Indonesia
- Papua New Guinea
- Philippines
- Vietnam

What can Europe offer to the Philippines ?
Climate- Critical Raw Materials Prospection
Climate - Raw Materials Exploration & Refining
Climate - Waste Management
Climate - Water Management
Digital - Broadband Submarine Cable
Digital - Broadband Terrestrial
Digital – Data centres
Digital - Semiconductor production
Education - Workforce Development
Energy - Renewables - Hydro
Energy - Renewables - Solar
Energy - Renewables - Wind
Energy - Storage
Energy - Subsea Power Cables
Health - Agricultural recycling
Health - Insurance
Health - Urban Farming
Transport - Digital logistics

●	Large reserves	●	Medium reserves	●	Existing EU supply chain

Example - Investment packages for mutual benefits

Where can Europe secure more semiconductor supplies?

- Australia
- India
- Malaysia
- Philippines
- Singapore
- South Korea
- Thailand

What can Europe offer to Thailand?
Climate- Critical Raw Materials Prospection
Climate - Raw Materials Exploration & Refining
Climate - Waste Management
Digital - Broadband Submarine Cable
Digital - Broadband Terrestrial
Digital - Semiconductor production
Energy - Renewables - Geothermal
Energy - Renewables - Wind
Health - Agricultural recycling
Health - E - health
Health - Hospitals
Health - Urban Farming
Health - Vaccine production

Summary of findings Climate

	Critical Raw Materials	Waste Management	Water Management
Partner country challenges & needs	Diversification of trading partners	Low waste recycling rates	Low water recycling rates
	Low environmental standards		
EU value proposition	Clean refining capabilities & Advanced prospective expertise	Advanced waste management expertise	Advanced water management expertise
	High environmental standards		
Selection criteria	**New CRM supply chains for the EU.**	**Overall solid waste management levels below 50%**	**Countries with more than 10% of population without access to safe drinking water:**
Target countries ASIAPAC	Indonesia, Malaysia, Pakistan, Papua New Guinea, Philippines, Thailand, Vietnam,	Bhutan, Laos, Mongolia, Myanmar, Nepal, New Zealand, Pakistan, Papua New Guinea, Philippines, and Sri Lanka.	Cambodia, India, Mongolia, Pakistan, Laos, Myanmar, Nepal, Papua New Guinea
Key EU private sector companies	Sandvik (Sweden), Epiroc (Sweden), FLSmidth (Denmark), Metso Outotec (Finland), Atlas Copco (Sweden), Komatsu Europe (Belgium), Wirtgen Group (Germany), Normet (Finland), Danieli (Italy), Tenova (Italy), Voith Turbo (Germany), ABB (Sweden), Outokumpu (Finland), Weir Minerals Europe (UK), BEUMER Group (Germany).	Suez (France), Veolia (France), Remondis (Germany), FCC Environment (Austria), Renewi (Netherlands), Biffa (UK), Urbaser (Spain), Saubermacher (Austria), Paprec Group (France), Averda (France), Tönsmeier (Germany), Van Gansewinkel (Netherlands), Gruppo Hera (Italy), ALBA Group (Germany), ILR (Luxembourg).	Veolia (France), Suez (France), Acciona Agua (Spain), FCC Aqualia (Spain), Remondis Aqua (Germany), Severn Trent (UK), United Utilities (UK), Saur (France), De Watergroep (Belgium), Vitens (Netherlands), Mekorot (Italy), Evides Waterbedrijf (Netherlands), EcoWater (Belgium), Aguas de Portugal (Portugal), Berliner Wasserbetriebe (Germany).

Summary of findings Energy

	Battery Recycling	Distribution & Storage
Partner country challenges & needs	Growth of EV pool and the need for battery recycling	Need for reliable access to power. Current power distribution capacity shortages.
EU Value proposition	Advanced battery recycling expertise to upgrade local battery recycling capabilities	Advanced expertise in power grid infrastructure (terrestrial & subsea) and Virtual Power Plants / Smart grids
Selection criteria	**Countries with growing EV pools and where a local traditional battery recycling already exists**	**Countries where power grids are at capacity and outages persist:**
Target countries ASIAPAC	Australia, India, and New Zealand.	Bangladesh, Bhutan, India, Indonesia, Myanmar, Nepal, Pakistan, Papua New Guinea.
Key EU private sector companies	Umicore (Belgium), Accurec Recycling GmbH (Germany), SNAM (France), Fortum (Finland), Attero (Netherlands), Redux Recycling GmbH (Germany), Boliden Group (Sweden), Recupyl (France), GRS Batterien (Germany), Stena Metall Group (Sweden), Remondis Electrorecycling (Germany), Varta (Germany), Campine (Belgium), Retriev Technologies (France).	Enel (Italy), EDF (France), Iberdrola (Spain), RWE (Germany), E.ON (Germany), Vattenfall (Sweden), ENGIE (France), Fortum (Finland), Ørsted (Denmark), EnBW (Germany), Verbund (Austria), Naturgy (Spain), EDP (Portugal), SSE (UK)

Summary of findings Energy

	Renewable Energy Generation				Green Hydrogen
Partner country challenges & needs	• Increased energy independence • Improved environmental standards				
EU Value proposition	Advanced expertise in renewable energy generation such as Geothermal, Hydro, Solar, and Wind				Advanced Green Hydrogen expertise.
Selection criteria	**Countries with the highest untapped renewable energy potential per category:**				**Countries with abundant clean water resources and significant levels of renewable energy:**
Target countries ASIAPAC	**GEOTHERMAL** **Australia, India Indonesia, Japan Malaysia, Myanmar Nepal, Pakistan, Papua New Guinea, Thailand, Vietnam**	**HYDRO** **Australia, Cambodia, India Indonesia, Japan Laos, Malaysia, Myanmar, Nepal Pakistan, Papua New Guinea, Vietnam**	**SOLAR** **Australia, Bangladesh India, Indonesia Japan, Malaysia, Myanmar, Pakistan Philippines, Thailand, Vietnam**	**WIND** **Bangladesh, Indonesia, Cambodia Malaysia, Pakistan, Philippines, Thailand**	**Cambodia, Malaysia, Mongolia, Nepal, and New Zealand.**
Key EU private sector companies	Enel Green Power (Italy), E.ON (Germany),Ormat Technologies (Germany), ENGIE (France), Veolia (France), Geo-En Energy Technologies (Germany),	Verbund (Austria), EDF (France), Iberdrola (Spain), ENEL (Italy), EDP (Portugal), Statkraft (Norway), Fortum (Finland), Vattenfall (Sweden), Engie (France), Hidroelectrica (Romania).	(Denmark), RWE (Germany), Solarcentury (UK), Saeta Yield (Spain), BayWa r.e. (Germany), Sonnedix (France), Solaria Energía y Medio Ambiente (Spain), Q-Cells (Germany), Scatec Solar (Norway), Soltec (Spain), SolarEdge (Italy)	Orsted (Denmark), Iberdrola (Spain), EDP Renewables (Portugal), RWE (Germany), Enel Green Power (Italy), Vattenfall (Sweden), E.ON (Germany), Energiekontor (Germany), Nordex (Germany), Vestas (Denmark), Siemens Gamesa Renewable Energy (Spain), Acciona Energia (Spain), Enercon (Germany), Falck Renewables (Italy), Global Wind Power (Denmark).	McPhy (France), Siemens Energy (Germany), NEL ASA (Norway), Ballard Power Systems (Denmark), Green Hydrogen Systems (Denmark), ENGIE (France), Sunfire (Germany), Hydrogenious Technologies (Germany), Cummins (UK), EPC Lingen (Germany), NorthH2 (Netherlands), Snam (Italy).

Summary of findings Digital

	Broadband Infrastructure	Data Centers	Semiconductors
Partner country challenges & needs	Trusted digital environment Universal access to data		Potential local manufacturing capabilities
EU Value proposition	5G Satellite Fibre-optic (submarine & terrestrial)	Data security & standards	Advanced technological knowhow
Selection criteria	**Countries with opportunities to increase secure digital connectivity:**	**Countries with scores below 75 on the Global Cybersecurity Index:**	**Countries with existing manufacturing capabilities:**
Target countries ASIAPAC	**Australia, Bangladesh, Indonesia, Japan, Laos, Malaysia, Nepal, New Zealand, Pakistan, Papua New Guinea, Singapore, Vietnam**	**Bhutan, Cambodia, Laos, Mongolia, Myanmar, Nepal, Pakistan, Papua New Guinea, and Sri Lanka.**	**Australia, India, Malaysia, Philippines, Singapore**
Key EU private sector companies	Deutsche Telekom (Germany), Orange (France), Vodafone (UK), Telefónica (Spain), Telecom Italia (Italy), KPN (Netherlands), Proximus Group (Belgium), Telia Company (Sweden), Telekom Austria Group (Austria), Elisa Corporation (Finland), Altice Europe (Netherlands), TDC Group (Denmark).	Equinix (Netherlands), Interxion (Netherlands), Data4 Group (France), DigiPlex (Norway), OVHcloud (France), maincubes (Germany), Data Center Services (Portugal), Bahnhof (Sweden),	Infineon Technologies (Germany), STMicroelectronics (Italy), NXP Semiconductors (Netherlands), ASML (Netherlands), BE Semiconductor Industries (Netherlands), Aixtron (Germany), Soitec (France), X-FAB (Germany), Dialog Semiconductor (UK), Siltronic (Germany), AMS (Austria), Nexperia (Netherlands), Melexis (Belgium), Süss MicroTec (Germany), Atmel Corporation (France).

Summary of findings Education & Research

	Workforce Development
Partner country challenges & needs	Qualified undergraduates lacking employment opportunities in healthcare High diaspora & remittance levels
EU Value proposition	Provide state of the art healthcare education and training, either in EU or in target country. Work in EU for 5-7 years to gain experience and cover the EU healthcare worker shortage, then return to the home country to work in a Global Gateway- related opportunity.
Selection criteria	**Countries with challenges to retain skilled workers in the healthcare sector:**
Target countries ASIAPAC	**India, Pakistan, Philippines, Sri Lanka, Vietnam**
Key EU private sector companies	3B Scientific (Germany), EON Reality (France), Philips Healthcare Education (Netherlands), CAE Healthcare (Germany), Gaumard Scientific (France), INACSL (Netherlands), SimCharacters (Austria), Medical-X (Netherlands), Anatomage (Italy), IngMar Medical (Germany), EchoNous (France).

We opted to prioritize the healthcare industry for our project, due to the mounting shortage of skilled labor in this sector throughout the EU. Essentially, our proposal outlines a pilot workforce development strategy aimed at augmenting partner countries' talent pool and tackling the dearth of skilled workers in the EU. As such, this approach could potentially be extended to other vital sectors to achieve our objective.

Summary of findings Health

	Agricultural Recycling	Urban Farming
Partner country challenges & needs	Food insecurity Low environmental standards	
EU Value proposition	Advanced know-how about environmentally friendly farming High environmental standards	
Selection criteria	**Countries with above-average fertiliser usage rates (higher than 100% of the EU average):**	**Countries with high levels of food insecurity (>20%), food imports (>10%), and high urban agglomeration levels:**
Target countries ASIAPAC	**Bangladesh, Pakistan, India, Indonesia, Thailand, Vietnam**	**Countries with Laos, Mongolia, Bhutan**
Key EU private sector companies	Terracycle (France), Veolia (France), Suez (France), Groupe Suez (France), FCC Environment (Spain), Remondis (Germany), LIPOR (Portugal), Urbaser (Spain), Saubermacher (Austria), Paprec Group (France).	Infarm (Germany), Agricool (France), Sky Greens (Netherlands), Green City Growers (UK), Plantagon (Sweden), Green Spirit Farms (Netherlands), Green Sense Farms (Netherlands), Metro Farms (Germany), Agriloops (France).

Summary of findings Health

	Healthcare services & infrastructure	Vaccine Production
Partner country challenges & needs	Access to affordable healthcare. Limited hospital infrastructure.	Potential for upgrade of local pharmaceutical manufacturing capabilities.
EU Value proposition	Advanced medical services expertise: Health insurance, Hospitals, e-Health services	Advanced expertise and know-how in vaccine manufacturing
Selection Criteria	**Countries where there is a shortage of hospitals and where there is a need for improved health coverage.**	**Countries where a pharmaceutical sector has been established (total exports > EUR 100 million) and where local laboratories have been identified.**
Target countries ASIAPAC	**Australia, Bangladesh, Cambodia, Japan, India, Indonesia, Malaysia, Mongolia, Myanmar, Nepal, Pakistan, Papua New Guinea, Philippines, Singapore, South Korea, Sri Lanka, Thailand, Vietnam**	**Australia, Bangladesh, Indonesia, Japan, Malaysia, Pakistan, Philippines, Singapore, Thailand, Vietnam**
Key EU private sector companies	Royal Philips (Netherlands), Siemens Healthineers (Germany), Fresenius Medical Care (Germany), Elekta (Sweden), Getinge (Sweden), Draegerwerk AG & Co. KGaA (Germany), Agfa-Gevaert Group (Belgium), B. Braun Melsungen AG (Germany), Paul Hartmann AG (Germany), Coloplast (Denmark), GN Store Nord (Denmark), Essity (Sweden)	Sanofi Pasteur (France), Novavax (Sweden), Pfizer (Belgium), Janssen Pharmaceutica (Belgium), Valneva (France), Bavarian Nordic (Denmark), Gavi, CureVac (Germany), BioNTech (Germany), Moderna (Spain), Novartis Vaccines (Italy), Takeda Pharmaceutical (Ireland).

Summary of findings Transport

	Digital Logistics	Rail	Road	Ports	Waterways
Partner country challenges & needs	Improved transportation infrastructure: establishment of corridors. Need for improved standards, including environmental, safety and efficiency.				
EU Value proposition	Excellence in sustainable infrastructure. High environmental, safety, and efficiency standards.				
Selection criteria	**LPI index score lower than 75** **New supply chains for critical raw materials, vaccines, and semiconductors.**				
Target countries ASIAPAC	**Australia, India, Bangladesh, Indonesia, Malaysia, Thailand, Vietnam, Cambodia, Laos, Mongolia*, Myanmar, Nepal*, Pakistan, Papua New Guinea, Philippines, Sri Lanka, Thailand, Vietnam** *landlocked countries: ports and waterways not applicable				
Key EU private sector companies	Sensolus (Belgium), Sennder (Germany), Freightos (Spain), Transmetrics (Bulgaria), Tiramizoo (Germany), Shippeo (France), Logz.io (Spain), OnTruck (Spain), Everoad (France), PTV Group (Germany), Cargonexx (Germany), Fretlink (France), Transfix (Netherlands), Quicargo (Netherlands).	Alstom (France), Siemens Mobility (Germany), Thales Group (France), Bombardier Transportation (Germany), Stadler Rail (Switzerland), CAF (Spain), Plasser & Theurer (Austria), Talgo (Spain), Hitachi Rail (Italy), Voith Turbo (Germany), Vossloh (Germany), Knorr-Bremse (Germany), Strukton Rail (Netherlands), Ansaldo STS (Italy), Kapsch CarrierCom (Austria).	Vinci (France), Ferrovial (Spain), Skanska (Sweden), Royal BAM Group (Netherlands), Bouygues Construction (France), Strabag (Austria), Eiffage (France), ACS Group (Spain), Mota-Engil (Portugal), Implenia (Switzerland), Salini Impregilo (Italy), Balfour Beatty (UK), PORR Group (Austria), Egis Group (France), Hochtief (Germany).	APM Terminals (Netherlands), PSA International (Belgium), Eurogate (Germany), Hamburg Süd (Germany), Maersk Line (Denmark), Contship Italia (Italy), Grimaldi Group (Italy), Hapag-Lloyd (Germany), Naviera Armas Trasmediterranea (Spain), Finnlines (Finland), Suardiaz Group (Spain), Samskip (Netherlands), Tallink Grupp (Estonia).	Saint-Gobain PAM (France), ArcelorMittal (Luxembourg), ThyssenKrupp AG (Germany), Tata Steel Europe (Netherlands), Voestalpine AG (Austria), Salzgitter AG (Germany), NLMK Europe (Belgium), Dillinger Hütte (Germany), Riva Group (Italy), SSAB (Sweden), Jindal Steel and Power (Austria), HBIS Group (Netherlands), Outokumpu (Finland), Gerdau (Spain).

7 Latin America & Caribbean

Potential Strategic Global Gateway Opportunities - LAC REGION

Potential investment opportunities across countires and territories	Argentina	Bolivia	Brazil	Chile	Colombia	Costa Rica	Cuba	Dominican Republic	Ecuador	El Salvador	Guatemala	Guyana	Haiti	Honduras	Jamaica	Mexico	Nicaragua	Panama	Paraguay	Peru	Uruguay	Venezuela	Total
Climate- Critical Raw Materials Prospection		■	■		■		■									■				■			6
Climate - Raw Materials Exploration & Refining		■	■		■		■									■				■			6
Climate - Waste Management	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	22
Climate - Water Management		■							■		■		■		■		■			■		■	8
Digital - 5G Networks	■		■	■	■	■										■		■		■	■	■	10
Digital - Broadband Satellite	■	■											■	■	■		■		■		■	■	9
Digital - Broadband Submarine Cable					■	■	■		■		■	■	■	■	■	■	■	■		■	■	■	15
Digital - Broadband Terrestrial		■					■			■	■	■	■	■	■		■	■	■			■	12
Digital - Datacenters		■							■	■	■	■	■					■				■	8
Digital - Semiconductor production	■		■	■	■	■										■							6
Education - Workforce Development		■						■	■	■	■	■		■	■								8
Energy - Battery recycling	■		■	■	■											■				■			6
Energy - Power grids		■			■			■	■	■	■		■	■	■		■			■			11
Energy - Renewables - Geothermal	■	■		■	■				■		■			■		■	■	■		■			11
Energy - Renewables - Green Hydrogen	■	■		■	■	■			■					■			■	■	■	■	■	■	13
Energy - Renewables - Hydro	■	■	■	■	■				■											■		■	8
Energy - Renewables - Solar	■	■	■	■	■				■							■				■	■		9
Energy - Renewables - Wind	■	■	■	■			■									■				■		■	8
Energy - Storage		■			■			■	■	■	■	■	■	■	■		■		■	■		■	14
Energy - Subsea Power Cables							■	■					■		■								4
Energy - Virtual Power Plants		■			■			■	■	■	■		■	■	■		■			■			11
Health - Agricultural recycling	■			■			■			■						■					■		6
Health - E - health		■						■	■	■	■	■	■	■			■		■	■		■	12
Health - Hospitals	■						■																2
Health - Insurance		■		■	■	■		■	■	■	■	■	■	■	■	■	■	■	■	■		■	18
Health - Urban Farming								■		■	■	■	■	■		■		■				■	9
Health - Vaccine production	■		■	■	■	■		■								■		■			■		9
Transport - Digital logistics		■	■		■		■	■		■	■	■	■	■	■	■				■		■	14
Transport - Port upgrade			■		■		■	■		■	■	■	■	■	■	■				■		■	13
Transport - Railways		■	■		■		■	■		■	■	■	■	■	■	■				■		■	14
Transport - Roads		■	■		■		■	■		■	■	■	■	■	■	■				■		■	14
Transport - Waterways			■		■		■	■		■	■	■	■	■	■	■				■		■	13
Total	13	21	15	12	21	7	14	15	14	16	18	14	18	18	16	19	12	10	7	22	8	19	

Example - Investment packages for mutual benefits

Where can Europe secure more lithium supplies?

- Argentina
- Bolivia
- Brazil
- Chile
- Mexico
- Peru

What can Europe offer to Brazil?

- Climate- Critical Raw Materials Prospection
- Climate - Raw Materials Exploration & Refining
- Climate - Waste Management
- Digital - 5G connectivity
- Digital – Semiconductor manufacturing
- Energy - Battery Recycling
- Energy - Renewables - Hydro
- Energy - Renewables - Solar
- Health - Vaccine production
- Transport - Digital logistics
- Transport - Railways
- Transport - Roads
- Transport - Waterways

●	Large reserves	●	Medium reserves	●	Existing EU supply chain

Example - Investment packages for mutual benefits

Where can Europe secure more semiconductor supplies?

- Argentina
- Brazil
- Chile
- Colombia
- Costa Rica
- Mexico

What can Europe offer to Colombia?

- Climate- Critical Raw Materials Prospection
- Climate - Raw Materials Exploration & Refining
- Climate - Waste Management
- Digital - 5G
- Digital - Broadband Submarine Cables
- Energy - Battery Recycling
- Energy - Power Grids
- Energy - Renewable - Geothermal
- Energy - Green Hydrogen
- Energy - Renewables - Hydro
- Energy - Renewables - Solar
- Energy - Renewables - Wind
- Energy - Storage
- Energy - Subsea Power Cables
- Energy - Virtual Power Plants
- Health - Vaccine Production
- Health - Insurance
- Transport - Digital logistics
- Transport - Railways
- Transport - Roads
- Transport - Waterways

Summary of findings Climate

	Critical Raw Materials	Waste Management	Water Management
Partner country challenges & needs	Diversification of trading partners	Low waste recycling rates	Low water recycling rates
	Low environmental standards		
EU value proposition	Clean refining capabilities & Advanced prospective expertise	Advanced waste management expertise	Advanced water management expertise
	High environmental standards		
Selection criteria	**New CRM supply chains for the EU.**	**Overall solid waste management levels below 50%**	**Countries with more than 10% of population without access to safe drinking water:**
Target countries LAC	**Bolivia, Brazil, Colombia, Cuba, Mexico, Peru**	**All countries in the region.**	**Bolivia, Ecuador, Guatemala, Haiti, Jamaica, Nicaragua, Peru, and Venezuela.**
Key EU private sector companies	Sandvik (Sweden), Epiroc (Sweden), FLSmidth (Denmark), Metso Outotec (Finland), Atlas Copco (Sweden), Komatsu Europe (Belgium), Wirtgen Group (Germany), Normet (Finland), Danieli (Italy), Tenova (Italy), Voith Turbo (Germany), ABB (Sweden), Outokumpu (Finland), Weir Minerals Europe (UK), BEUMER Group (Germany).	Suez (France), Veolia (France), Remondis (Germany), FCC Environment (Austria), Renewi (Netherlands), Biffa (UK), Urbaser (Spain), Saubermacher (Austria), Paprec Group (France), Averda (France), Tönsmeier (Germany), Van Gansewinkel (Netherlands), Gruppo Hera (Italy), ALBA Group (Germany), ILR (Luxembourg).	Veolia (France), Suez (France), Acciona Agua (Spain), FCC Aqualia (Spain), Remondis Aqua (Germany), Severn Trent (UK), United Utilities (UK), Saur (France), De Watergroep (Belgium), Vitens (Netherlands), Mekorot (Italy), Evides Waterbedrijf (Netherlands), EcoWater (Belgium), Aguas de Portugal (Portugal), Berliner Wasserbetriebe (Germany).

Summary of findings Energy

	Battery Recycling	Distribution & Storage
Partner country challenges & needs	Growth of EV pool and the need for battery recycling	Need for reliable access to power. Current power distribution capacity shortages.
EU Value proposition	Advanced battery recycling expertise to upgrade local battery recycling capabilities	Advanced expertise in power grid infrastructure (terrestrial & subsea) and Virtual Power Plants / Smart grids
Selection criteria	**Countries with growing EV pools and where a local traditional battery recycling already exists**	**Countries where power grids are at capacity and outages persist:**
Target countries LAC	**Argentina, Brazil, Chile, Colombia, Mexico, and Peru**	**Bolivia, Colombia, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Nicaragua, Paraguay, Peru, and Venezuela**
Key EU private sector companies	Umicore (Belgium), Accurec Recycling GmbH (Germany), SNAM (France), Fortum (Finland), Attero (Netherlands), Redux Recycling GmbH (Germany), Boliden Group (Sweden), Recupyl (France), GRS Batterien (Germany), Stena Metall Group (Sweden), Remondis Electrorecycling (Germany), Varta (Germany), Campine (Belgium), Retriev Technologies (France).	Enel (Italy), EDF (France), Iberdrola (Spain), RWE (Germany), E.ON (Germany), Vattenfall (Sweden), ENGIE (France), Fortum (Finland), Ørsted (Denmark), EnBW (Germany), Verbund (Austria), Naturgy (Spain), EDP (Portugal), SSE (UK)

Summary of findings Energy

	Renewable Energy Generation				Green Hydrogen
Partner country challenges & needs	• Increased energy independence • Improved environmental standards				
EU Value proposition	Advanced expertise in renewable energy generation such as Geothermal, Hydro, Solar, and Wind				Advanced Green Hydrogen expertise.
Selection criteria	**Countries with the highest untapped renewable energy potential per category:**				**Countries with abundant clean water resources and significant levels of renewable energy:**
Target countries LAC	**Argentina, Bolivia, Chile, Colombia, Ecuador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Peru**	**Argentina, Bolivia Brazil, Chile Colombia, Ecuador, Peru, Venezuela**	**Argentina, Bolivia Brazil, Chile, Colombia, Ecuador Mexico, Peru, Uruguay**	**Costa Rica, Uruguay Peru, Dominican Republic, Panama Colombia, Jamaica Nicaragua, Ecuador Honduras, Cuba, Guyana**	**Argentina, Bolivia, Chile, Colombia, Costa Rica, Ecuador, Honduras, Nicaragua, Panama, Paraguay, Peru, Uruguay, Venezuela**
Key EU private sector companies	Enel Green Power (Italy), E.ON (Germany),Ormat Technologies (Germany), ENGIE (France), Veolia (France), Geo-En Energy Technologies (Germany),	Verbund (Austria), EDF (France), Iberdrola (Spain), ENEL (Italy), EDP (Portugal), Statkraft (Norway), Fortum (Finland), Vattenfall (Sweden), Engie (France), Hidroelectrica (Romania).	(Denmark), RWE (Germany), Solarcentury (UK), Saeta Yield (Spain), BayWa r.e. (Germany), Sonnedix (France), Solaria Energía y Medio Ambiente (Spain), Q-Cells (Germany), Scatec Solar (Norway), Soltec (Spain), SolarEdge (Italy)	Orsted (Denmark), Iberdrola (Spain), EDP Renewables (Portugal), RWE (Germany), Enel Green Power (Italy), Vattenfall (Sweden), E.ON (Germany), Energiekontor (Germany), Nordex (Germany), Vestas (Denmark), Siemens Gamesa Renewable Energy (Spain), Acciona Energia (Spain), Enercon (Germany), Falck Renewables (Italy), Global Wind Power (Denmark).	McPhy (France), Siemens Energy (Germany), NEL ASA (Norway), Ballard Power Systems (Denmark), Green Hydrogen Systems (Denmark), ENGIE (France), Sunfire (Germany), Hydrogenious Technologies (Germany), Cummins (UK), EPC Lingen (Germany), NorthH2 (Netherlands), Snam (Italy).

Summary of findings Digital

	Broadband Infrastructure	Data Centers	Semiconductors
Partner country challenges & needs	Trusted digital environment Universal access to data		Potential local manufacturing capabilities
EU Value proposition	5G Satellite Fibre-optic (submarine & terrestrial)	Data security & standards	Advanced technological knowhow
Selection criteria	**Countries with opportunities to increase secure digital connectivity:**	**Countries with scores below 75 on the Global Cybersecurity Index:**	**Countries with existing manufacturing capabilities:**
Target countries LAC	**Argentina, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, Venezuela**	**Bolivia, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Panama, Venezuela**	**Argentina, Brazil, Colombia, Costa Rica, Mexico**
Key EU private sector companies	Deutsche Telekom (Germany), Orange (France), Vodafone (UK), Telefónica (Spain), Telecom Italia (Italy), KPN (Netherlands), Proximus Group (Belgium), Telia Company (Sweden), Telekom Austria Group (Austria), Elisa Corporation (Finland), Altice Europe (Netherlands), TDC Group (Denmark).	Equinix (Netherlands), Interxion (Netherlands), Data4 Group (France), DigiPlex (Norway), OVHcloud (France), maincubes (Germany), Data Center Services (Portugal), Bahnhof (Sweden),	Infineon Technologies (Germany), STMicroelectronics (Italy), NXP Semiconductors (Netherlands), ASML (Netherlands), BE Semiconductor Industries (Netherlands), Aixtron (Germany), Soitec (France), X-FAB (Germany), Dialog Semiconductor (UK), Siltronic (Germany), AMS (Austria), Nexperia (Netherlands), Melexis (Belgium), Süss MicroTec (Germany), Atmel Corporation (France).

Summary of findings Education & Research

	Workforce Development
Partner country challenges & needs	Qualified undergraduates lacking employment opportunities in healthcare High diaspora & remittance levels
EU Value proposition	Provide state of the art healthcare education and training, either in EU or in target country. Work in EU for 5-7 years to gain experience and cover the EU healthcare worker shortage, then return to the home country to work in a Global Gateway- related opportunity.
Selection criteria	**Countries with challenges to retain skilled workers in the healthcare sector:**
Target countries LAC	**Bolivia, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Jamaica**
Key EU private sector companies	3B Scientific (Germany), EON Reality (France), Philips Healthcare Education (Netherlands), CAE Healthcare (Germany), Gaumard Scientific (France), INACSL (Netherlands), SimCharacters (Austria), Medical-X (Netherlands), Anatomage (Italy), IngMar Medical (Germany), EchoNous (France).

We opted to prioritize the healthcare industry for our project, due to the mounting shortage of skilled labor in this sector throughout the EU. Essentially, our proposal outlines a pilot workforce development strategy aimed at augmenting partner countries' talent pool and tackling the dearth of skilled workers in the EU. As such, this approach could potentially be extended to other vital sectors to achieve our objective.

Summary of findings Health

	Agricultural Recycling	Urban Farming
Partner country challenges & needs	Food insecurity Low environmental standards	
EU Value proposition	Advanced know-how about environmentally friendly farming High environmental standards	
Selection criteria	**Countries with above-average fertiliser usage rates (higher than 100% of the EU average):**	**Countries with high levels of food insecurity (>20%), food imports (>10%), and high urban agglomeration levels:**
Target countries LAC	**Argentina, Chile, Cuba, El Salvador, Mexico, Uruguay**	**Dominican Republic, El Salvador, Guatemala, Guyana, Haiti, Honduras, Mexico, Panama, Venezuela**
Key EU private sector companies	Terracycle (France), Veolia (France), Suez (France), Groupe Suez (France), FCC Environment (Spain), Remondis (Germany), LIPOR (Portugal), Urbaser (Spain), Saubermacher (Austria), Paprec Group (France).	Infarm (Germany), Agricool (France), Sky Greens (Netherlands), Green City Growers (UK), Plantagon (Sweden), Green Spirit Farms (Netherlands), Green Sense Farms (Netherlands), Metro Farms (Germany), Agriloops (France).

Summary of findings Health

	Healthcare services & infrastructure	Vaccine Production
Partner country challenges & needs	Access to affordable healthcare. Limited hospital infrastructure.	Potential for upgrade of local pharmaceutical manufacturing capabilities.
EU Value proposition	Advanced medical services expertise: Health insurance, Hospitals, e-Health services	Advanced expertise and know-how in vaccine manufacturing
Selection Criteria	**Countries where there is a shortage of hospitals and where there is a need for improved health coverage.**	**Countries where a pharmaceutical sector has been established (total exports > EUR 100 million) and where local laboratories have been identified.**
Target countries LAC	**Argentina, Bolivia, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Venezuela**	**Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Mexico, Panama, Uruguay**
Key EU private sector companies	Royal Philips (Netherlands), Siemens Healthineers (Germany), Fresenius Medical Care (Germany), Elekta (Sweden), Getinge (Sweden), Draegerwerk AG & Co. KGaA (Germany), Agfa-Gevaert Group (Belgium), B. Braun Melsungen AG (Germany), Paul Hartmann AG (Germany), Coloplast (Denmark), GN Store Nord (Denmark), Essity (Sweden)	Sanofi Pasteur (France), Novavax (Sweden), Pfizer (Belgium), Janssen Pharmaceutica (Belgium), Valneva (France), Bavarian Nordic (Denmark), Gavi, CureVac (Germany), BioNTech (Germany), Moderna (Spain), Novartis Vaccines (Italy), Takeda Pharmaceutical (Ireland).

	Digital Logistics	Rail	Road	Ports	Waterways
Partner country challenges & needs	Improved transportation infrastructure: establishment of corridors. Need for improved standards, including environmental, safety and efficiency.				
EU Value proposition	Excellence in sustainable infrastructure. High environmental, safety, and efficiency standards.				
Selection criteria	**LPI index score lower than 75** **New supply chains for critical raw materials, vaccines, and semiconductors.**				
Target countries LAC	**Bolivia*, Brazil, Colombia, Cuba, Dominican Republic, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Peru, Venezuela** *landlocked countries: ports and waterways not applicable				

Key EU private sector companies	Sensolus (Belgium), Sennder (Germany), Freightos (Spain), Transmetrics (Bulgaria), Tiramizoo (Germany), Shippeo (France), Logz.io (Spain), OnTruck (Spain), Everoad (France), PTV Group (Germany), Cargonexx (Germany), Fretlink (France), Transfix (Netherlands), Quicargo (Netherlands).	Alstom (France), Siemens Mobility (Germany), Thales Group (France), Bombardier Transportation (Germany), Stadler Rail (Switzerland), CAF (Spain), Plasser & Theurer (Austria), Talgo (Spain), Hitachi Rail (Italy), Voith Turbo (Germany), Vossloh (Germany), Knorr-Bremse (Germany), Strukton Rail (Netherlands), Ansaldo STS (Italy), Kapsch CarrierCom (Austria).	Vinci (France), Ferrovial (Spain), Skanska (Sweden), Royal BAM Group (Netherlands), Bouygues Construction (France), Strabag (Austria), Eiffage (France), ACS Group (Spain), Mota-Engil (Portugal), Implenia (Switzerland), Salini Impregilo (Italy), Balfour Beatty (UK), PORR Group (Austria), Egis Group (France), Hochtief (Germany).	APM Terminals (Netherlands), PSA International (Belgium), Eurogate (Germany), Hamburg Süd (Germany), Maersk Line (Denmark), Contship Italia (Italy), Grimaldi Group (Italy), Hapag-Lloyd (Germany), Naviera Armas Trasmediterranea (Spain), Finnlines (Finland), Suardiaz Group (Spain), Samskip (Netherlands), Tallink Grupp (Estonia).	Saint-Gobain PAM (France), ArcelorMittal (Luxembourg), ThyssenKrupp AG (Germany), Tata Steel Europe (Netherlands), Voestalpine AG (Austria), Salzgitter AG (Germany), NLMK Europe (Belgium), Dillinger Hütte (Germany), Riva Group (Italy), SSAB (Sweden), Jindal Steel and Power (Austria), HBIS Group (Netherlands), Outokumpu (Finland), Gerdau (Spain).