Low Carbon City Development Programs
The Case of Rio de Janeiro LCCDP

The DNV Group

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│   DNV KEMA     │  │      DNV       │  │      DNV       │
│   Energy &     │  │ Maritime Oil & │  │   Business     │
│ Sustainability │  │      Gas       │  │   Assurance    │
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HEAD OFFICE – Oslo, Norway

300 offices

100 countries

10,400 employees

MANAGING RISK
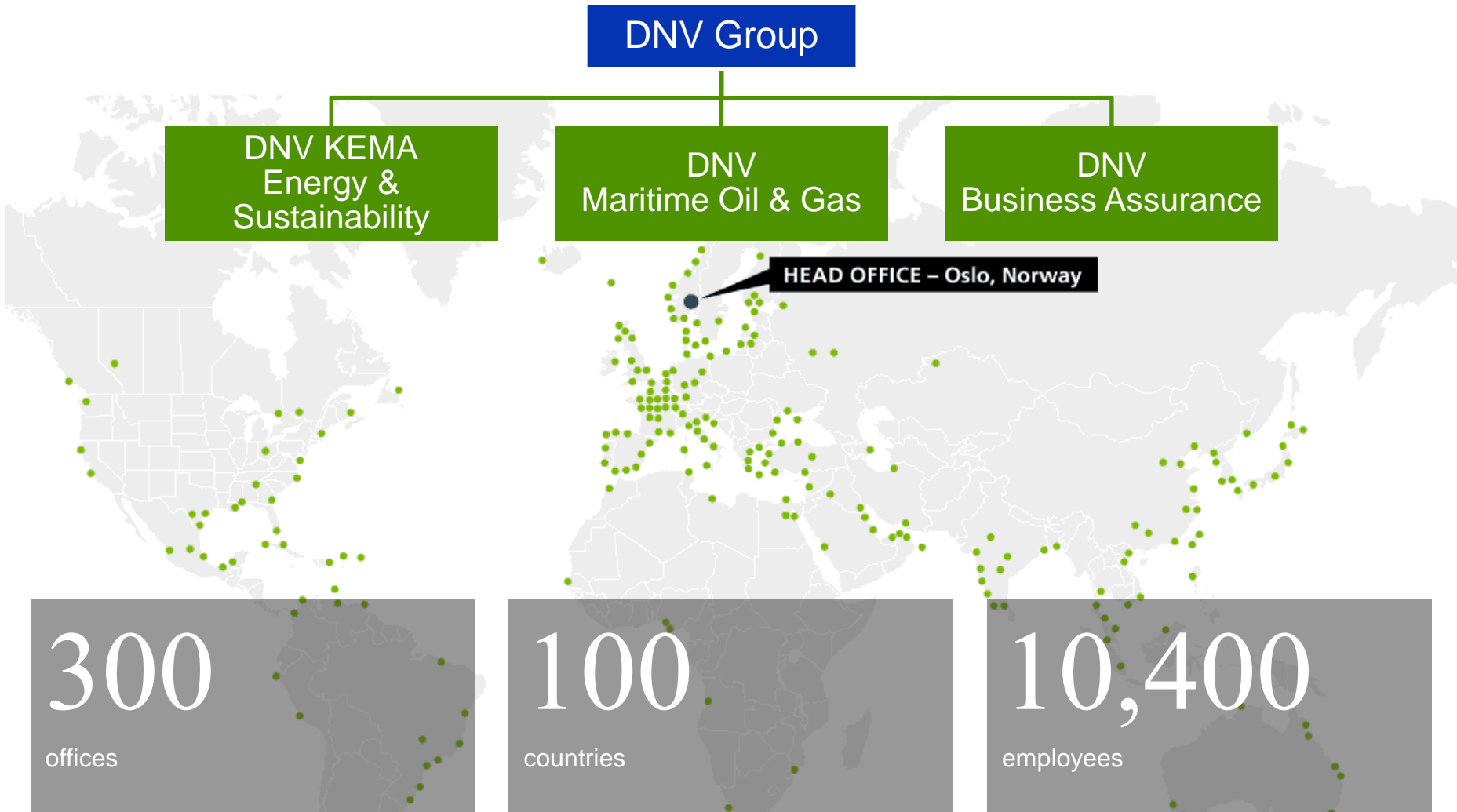
Cities are Leaders in Climate Change Mitigation

- Cities can fill the void created by lack of an international climate agreement

- City governments make decisions that result in immediate, visible action on the ground

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Why Low Carbon City Development?

- Global-scale leadership on climate change at a local level

- Green economy and green industries

- Green jobs and promoting innovation
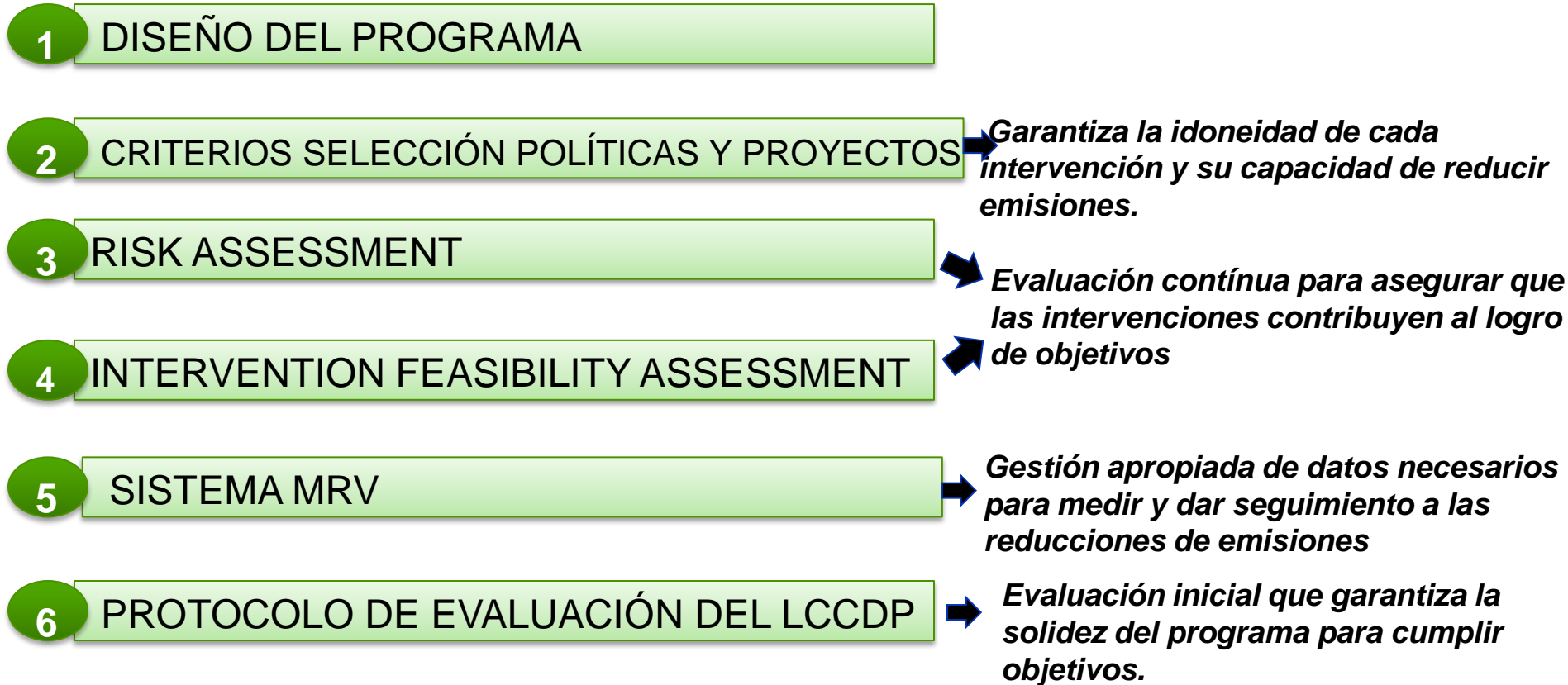
- Social inclusion and improved quality of life

MANAGING RISK

Making Low Carbon Development Operational

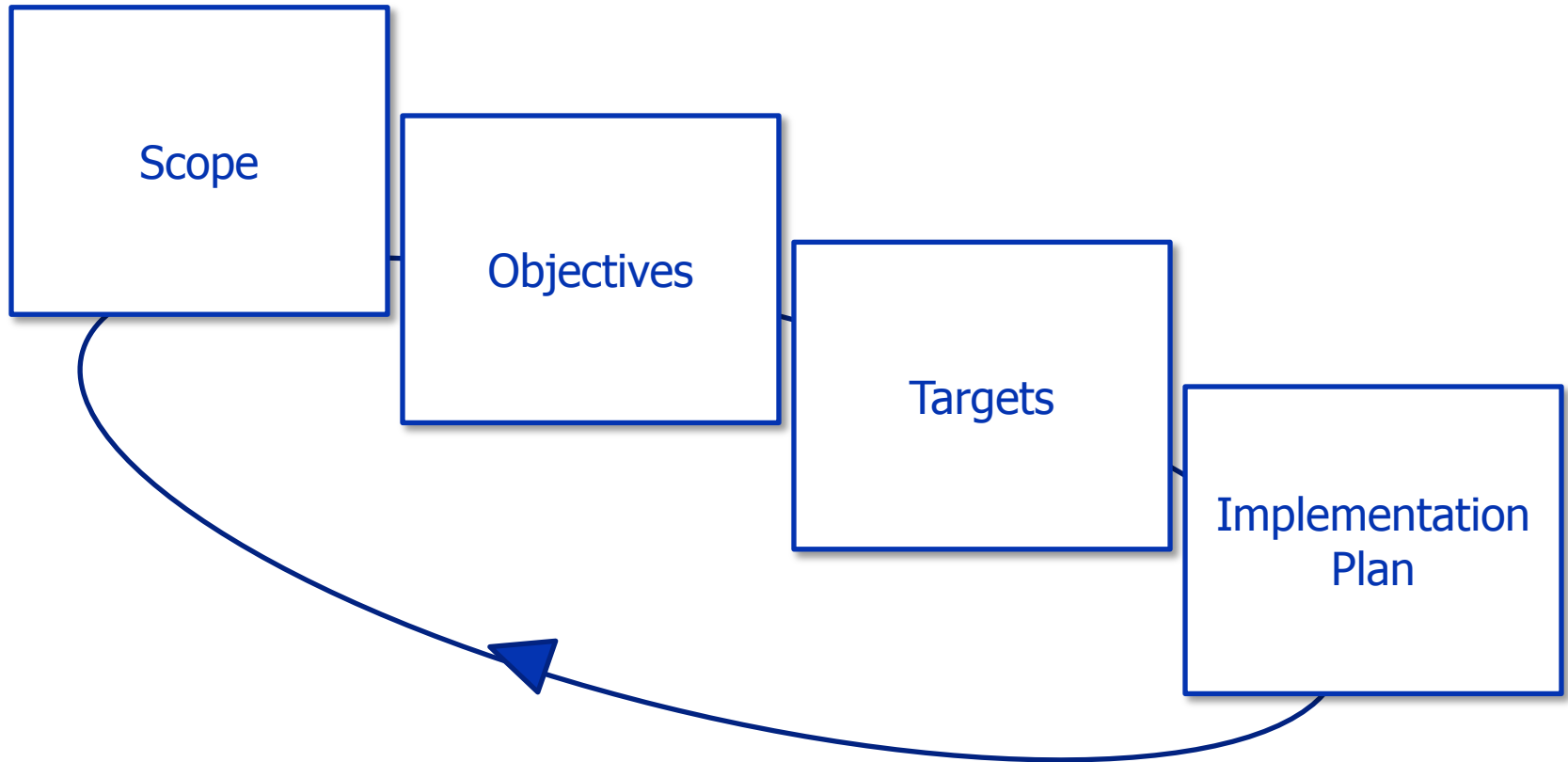- "Unpacking" and implementing:

  Low Carbon City Development Program

  "…a framework and comprehensive set of requirements to help the city to **plan, implement, monitor, and account** for low carbon investments and actions across all sectors in the city…"

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The Low Carbon City Development Program - Implementation

1 DISEÑO DEL PROGRAMA

2 CRITERIOS SELECCIÓN POLÍTICAS Y PROYECTOS → *Garantiza la idoneidad de cada intervención y su capacidad de reducir emisiones.*

3 RISK ASSESSMENT

Evaluación contínua para asegurar que las intervenciones contribuyen al logro de objetivos

4 INTERVENTION FEASIBILITY ASSESSMENT

5 SISTEMA MRV → *Gestión apropiada de datos necesarios para medir y dar seguimiento a las reducciones de emisiones*

6 PROTOCOLO DE EVALUACIÓN DEL LCCDP → *Evaluación inicial que garantiza la solidez del programa para cumplir objetivos.*

Program Design

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Shaping the Rio of the Future
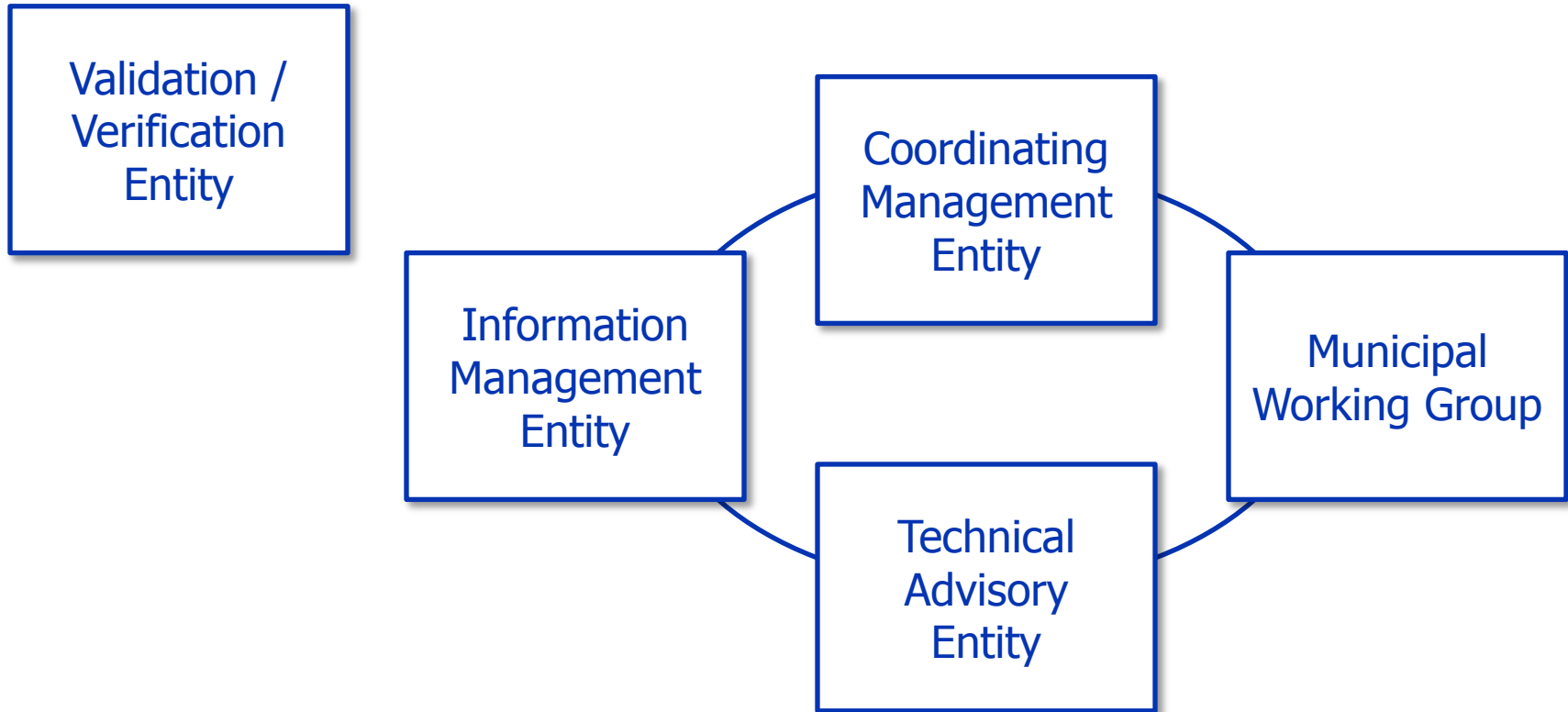
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Making Low Carbon Development Operational

- Laying the foundations:

  1. Strategic plan

  2. GHG inventory and scenarios

  3. Climate change law with GHG reduction targets

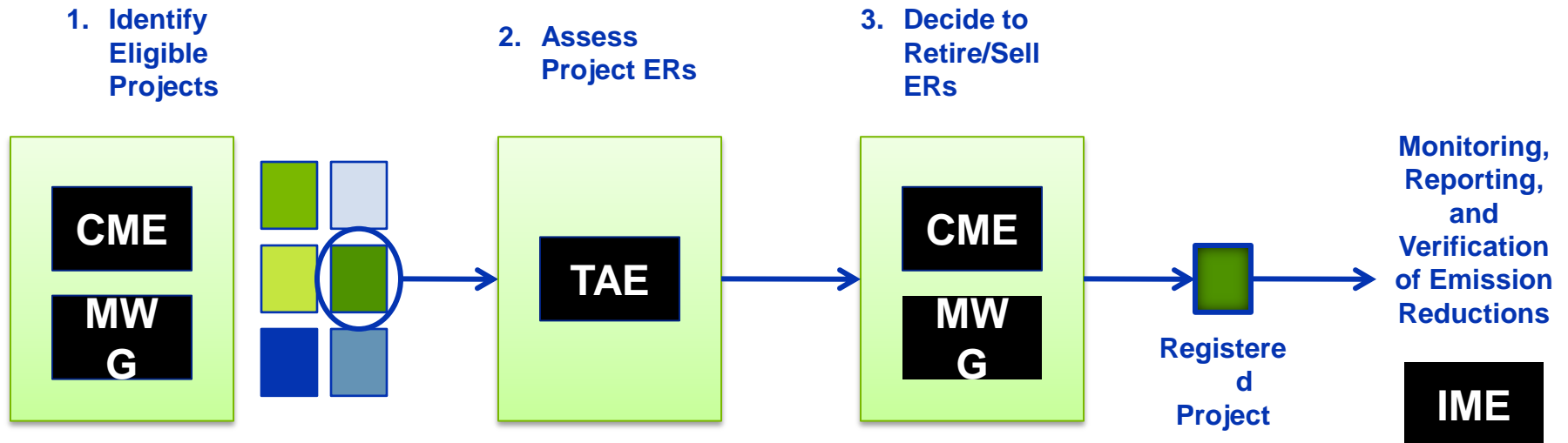MANAGING RISK

Roles and Responsibilities

RISK	DESCRIPTION[1]
Management risk	Is a private company developing this project? % risk of change in management or other conditions that may affect implementation of the project.
Operational risk	Has the project not started implementation? If the project is reflected in the strategic plan or the contract for an activity has been awarded, the project should begin implementation within a specific time period.
Financial risk	If not started, does the project not have financial closure? If not started, is there no budgetary commitment? If a project has been identified, defined, and planned, financial constraints could lead to major delays and potential cancellation of the project.
Delivery risk	If started, does the project or policy not have implementation targets? This is a planning-related query. A project will be identified and planned as part of normal municipal planning practices.
Delay risk	If started, is the project delayed? If started, is it not on target? This is a periodic evaluation-related query. A project may be facing extreme delays or potential cancellation due to variety of reasons, most important being public opinion or new environmental/social issues.
Commercial risk	If there is a contractual relationship needed, is the contractual relationship with the Prefeitura not formalized? For activities that are to be implemented by an external organization, such as a private sector company or an NGO, the Prefeitura will have to enter into a formal contract.
Ownership risk	Does the project contract, policy, or its implementation guidelines not specify who owns the ERs? The Prefeitura could seek amendment of the contract and obtain ownership of ERs.
Market risk	Is the project implementation dependent on revenues from carbon credit sales? If the project developer (the Prefeitura or private entity) depends on carbon revenue for project implementation, low prevailing prices or perceived difficulty in raising revenues from ER sale may prompt the developers to abandon the project.
Quality risk	Are there any changes during implementation that may affect ERs? ERs for all future projects will be assessed ex-ante based on the feasibility study or design plans. If there is any change in the designs or plans, it may reduce or affect the ER volume.
Inclusion risk	Does the project or implementation mechanism for the policy not fulfill Intervention Eligibility Criteria? Each project needs to be tested against the Intervention Eligibility Criteria specified in the Program Document. It is nearly impossible to modify a project to fit the conditions.

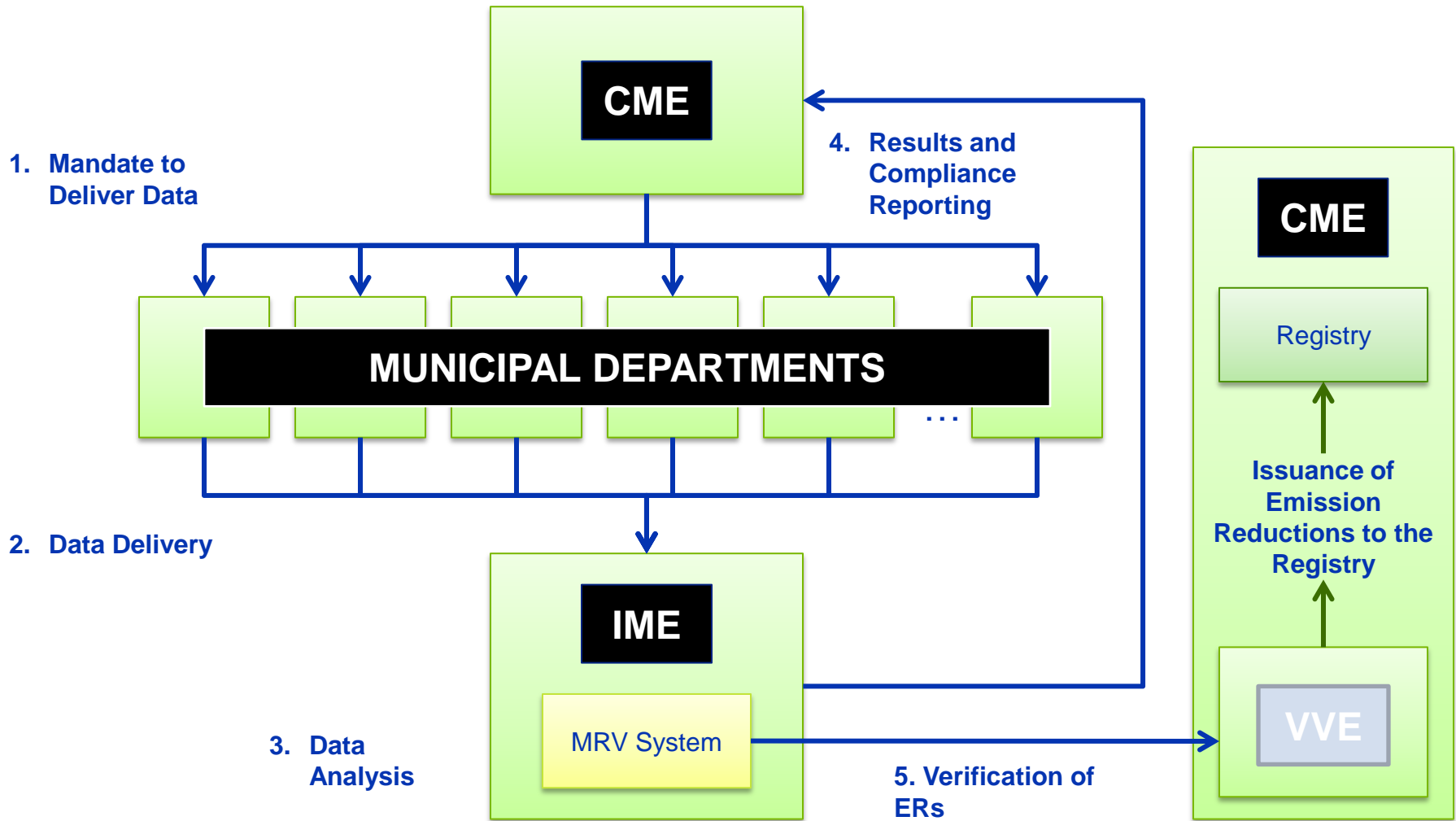| Intervention	ERs / year[1]	Risk Rating[2]	Retire or Sell[3]	ERs Towards 2020 Target[4]	ERs to be Sold
Program for inspection and maintenance of light vehicles	LOW-MEDIUM	HIGH	TBD	LOW	TBD
Increased biodiesel fuel share - Gradually increasing from 5% in 2010 to 10% in 2020	MEDIUM	HIGH	TBD	LOW	TBD
LED traffic lights replacement	MEDIUM	MEDIUM	TBD	MEDIUM	TBD
TOTAL REMAINING TOWARDS TARGET				TBD (2.3MtCO2e)	

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Intervention Registration Process

1. **Identify Eligible Projects**

2. **Assess Project ERs**

3. **Decide to Retire/Sell ERs**

CME

MWG

TAE

CME

MWG

Registered Project

Monitoring, Reporting, and Verification of Emission Reductions
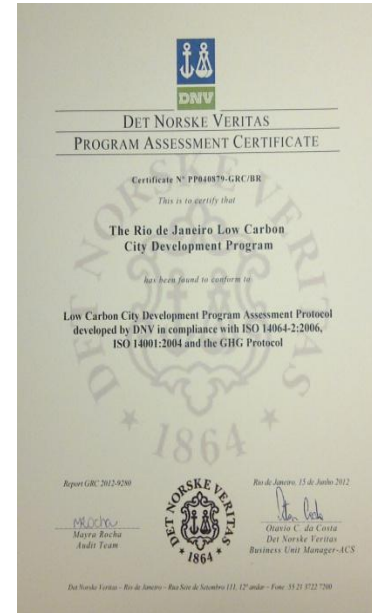
IME

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Monitoring, Reporting, and Verification Process

The Rio Low Carbon City Development Program

- An ISO-certified, systems approach:

  1. Program planning and evaluation

  2. Roles and responsibilities

  3. Intervention registration process

  4. Monitoring, reporting, and verification process

- A framework that is applicable in cities around the world

ISO 14064-2
ISO 14001
GHG Protocol

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Key Messages

- Cities are leaders in climate change mitigation.

- Climate change mitigation and actions on the ground are essential for green and inclusive growth.

- Data collection and monitoring of GHG emission reductions adds credibility and transparency, which is also essential to access climate finance.

- A **Low Carbon City Development Program** can provide a framework to plan, implement, monitor, and account for low carbon investments and actions.

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Thank you for your attention.

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