UNEP Finance Initiative

Energy Efficiency Finance capacity building for PRB Banks in AME

11-12 July 2023

MINISTERO DELL'AMBIENTE
E DELLA SICUREZZA ENERGETICA

We would like to thank the Italian Ministry of Environment and Energy Security for supporting the UN system's contribution to a green and inclusive recovery by harnessing the power of financial systems to support the SDG Decade of Action, access of developing countries to sustainable finance and Multilateral Environmental Agreements.

The outline of the capacity building program

11 July

9.00 **Introduction to the program**

9.15 **Setting the scene: the PRB view on energy efficiency** (UNEP FI)

9.30 **The business opportunity – what role energy efficiency could play in the coming decades** (Cornelia Schenk, International Energy Agency)

10.15 Coffee break

10.35 **SMEs and energy efficiency investments – A case study of Energy Savings Insurance as an innovative instrument** (Livia Miethke, BASE)

10.50 **Energy efficiency target setting & implementation** (UNEP FI)

11:55 **Wrap-up and closing**

12 July

9.00 Opening

9.05 **EE Underwriting toolkit** (Steven Fawkes/EEFIG)

9.45 **Towards a zero-emission, efficient and resilient buildings and construction sector in Sub-Saharan Africa / MENA** (Jonathan Duwyn / UNEP-GlobalABC and IFC)

10.45 **Break**

10.50 **Using ESCOs to scale up energy efficiency investments** (Jalel Chabchoub/African Development Bank)

11.50 **Wrap-up and closing** (UNEP FI)

Before we get started

Connect to Slido via the link posted in the chat

or go to **www.slido.com** and
enter code: **789 123**

or scan QR code:

- Post questions in Slido or Raise hands in Webex (if you want to speak up)

- Recordings and materials will be shared after the meeting to participants

slido

Let's start with introductions (your bank, department, country)

ⓘ Start presenting to display the poll results on this slide.

slido

Is energy efficiency currently part of your sustainability strategy?

ⓘ Start presenting to display the poll results on this slide.

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Why do you think can energy efficiency be important in your country?

ⓘ Start presenting to display the poll results on this slide.

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What are your expectations for this programme?

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You can post questions during the whole workshop on Slido!

ⓘ Start presenting to display the audience questions on this slide.

Energy Efficiency in the PRB Framework

EE is key for several impact areas

PRINCIPLE 1:
ALIGNMENT

We will align our business strategy to be consistent with and contribute to individuals' needs and society's goals, as expressed in the Sustainable Development Goals, the Paris Climate Agreement and relevant national and regional frameworks.

PRINCIPLE 2:
IMPACT & TARGET SETTING

We will continuously increase our positive impacts while reducing the negative impacts on, and managing the risks to, people and environment resulting from our activities, products and services. To this end, we will set and publish targets where we can have the most significant impacts.

PRINCIPLE 3:
CLIENTS & CUSTOMERS

We will work responsibly with our clients and our customers to encourage sustainable practices and enable economic activities that create shared prosperity for current and future generations.

PRINCIPLE 4:
STAKEHOLDERS

We will proactively and responsibly consult, engage and partner with relevant stakeholders to achieve society's goals.

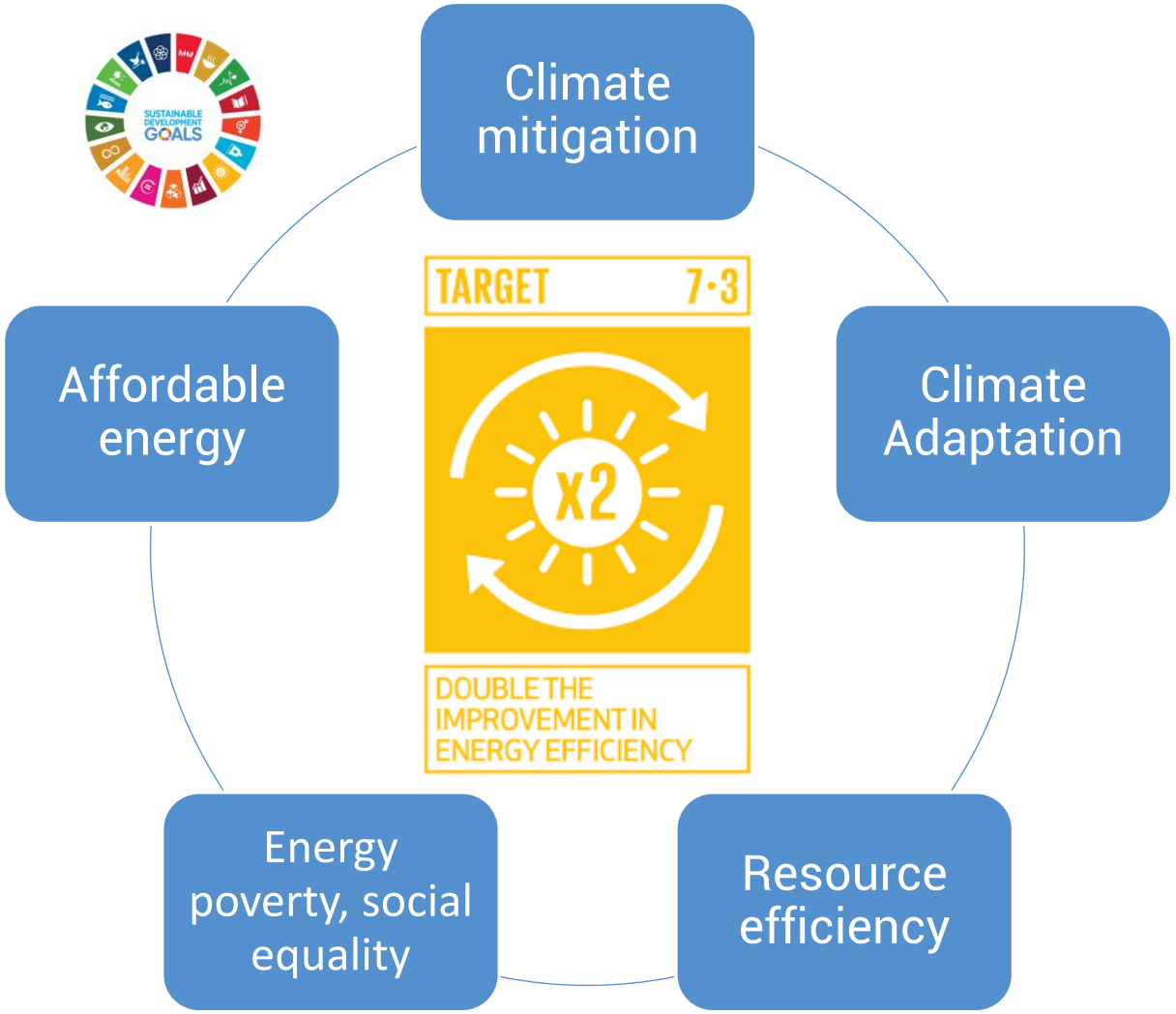
PRINCIPLE 5:
GOVERNANCE & CULTURE

We will implement our commitment to these Principles through effective governance and a culture of responsible banking.

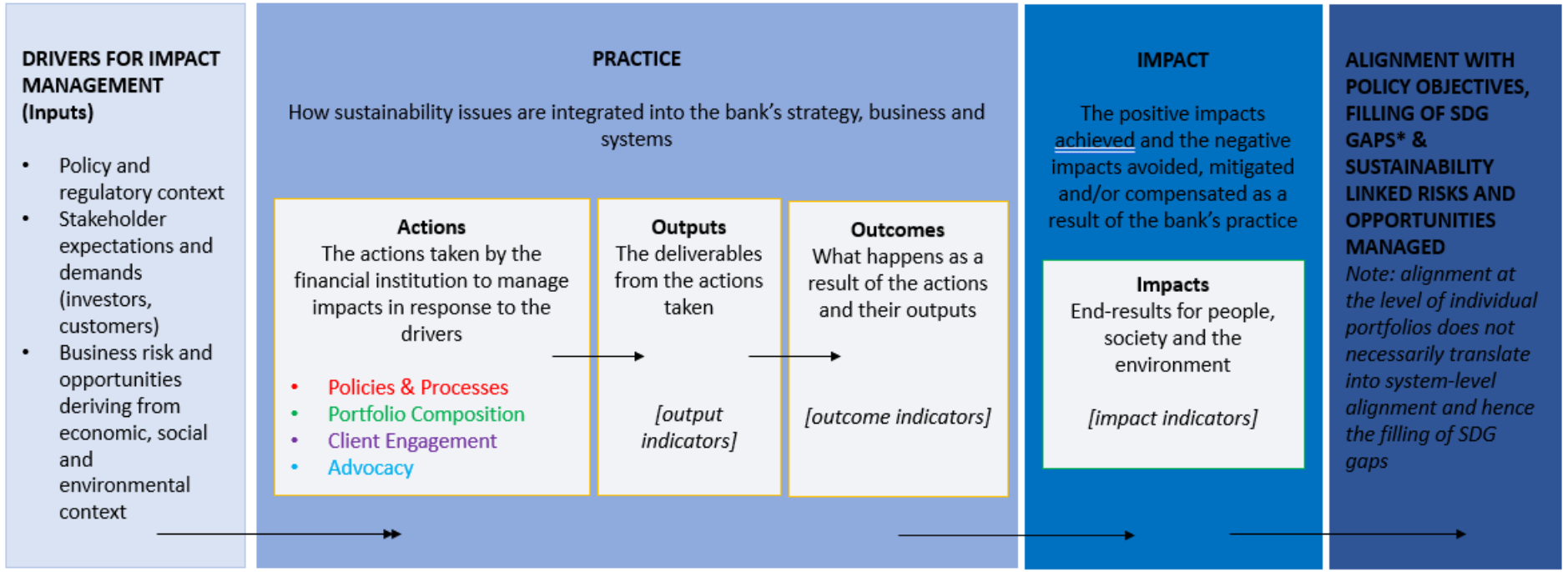
PRINCIPLE 6:
TRANSPARENCY & ACCOUNTABILITY

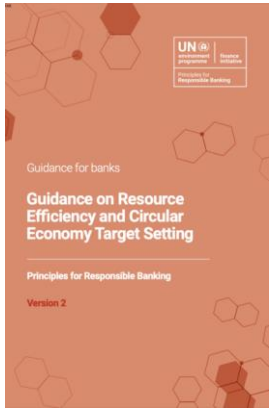
We will periodically review our individual and collective implementation of these Principles and be transparent about and accountable for our positive and negative impacts and our contribution to society's goals.

EE is key for several impact areas

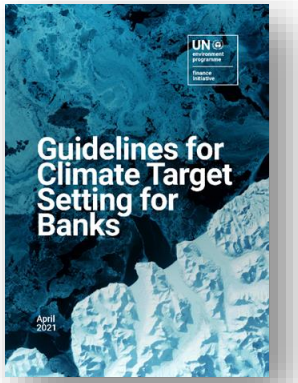


As a PRB bank you can approach EE from at least two impact areas for your target setting





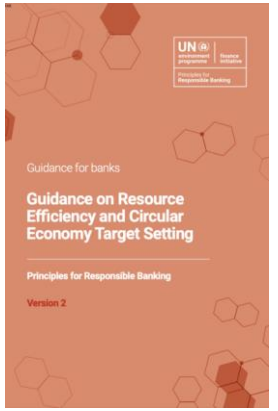
Resource efficiency & Circular economy



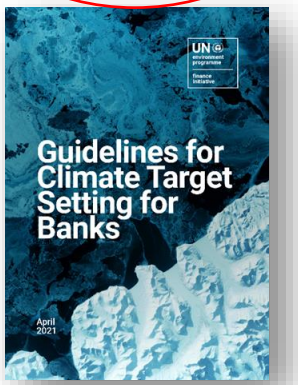
Climate Change

You can also consider setting combined climate & circular economy targets, using both guidances to maximize synergies and avoid a silo-effect

As a PRB bank you can approach EE from at least two impact areas for your target setting

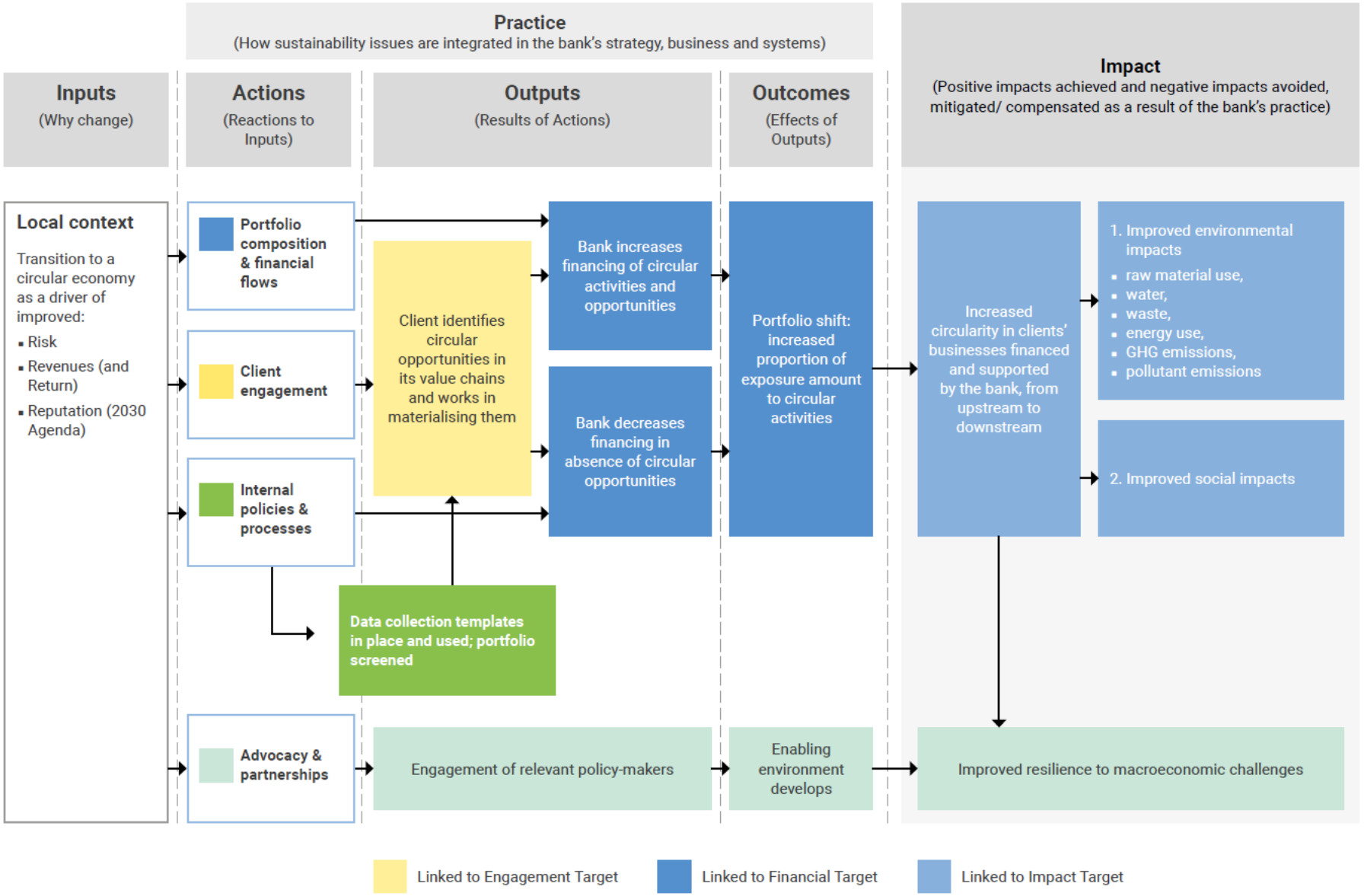


Resource efficiency & Circular economy



Climate Change

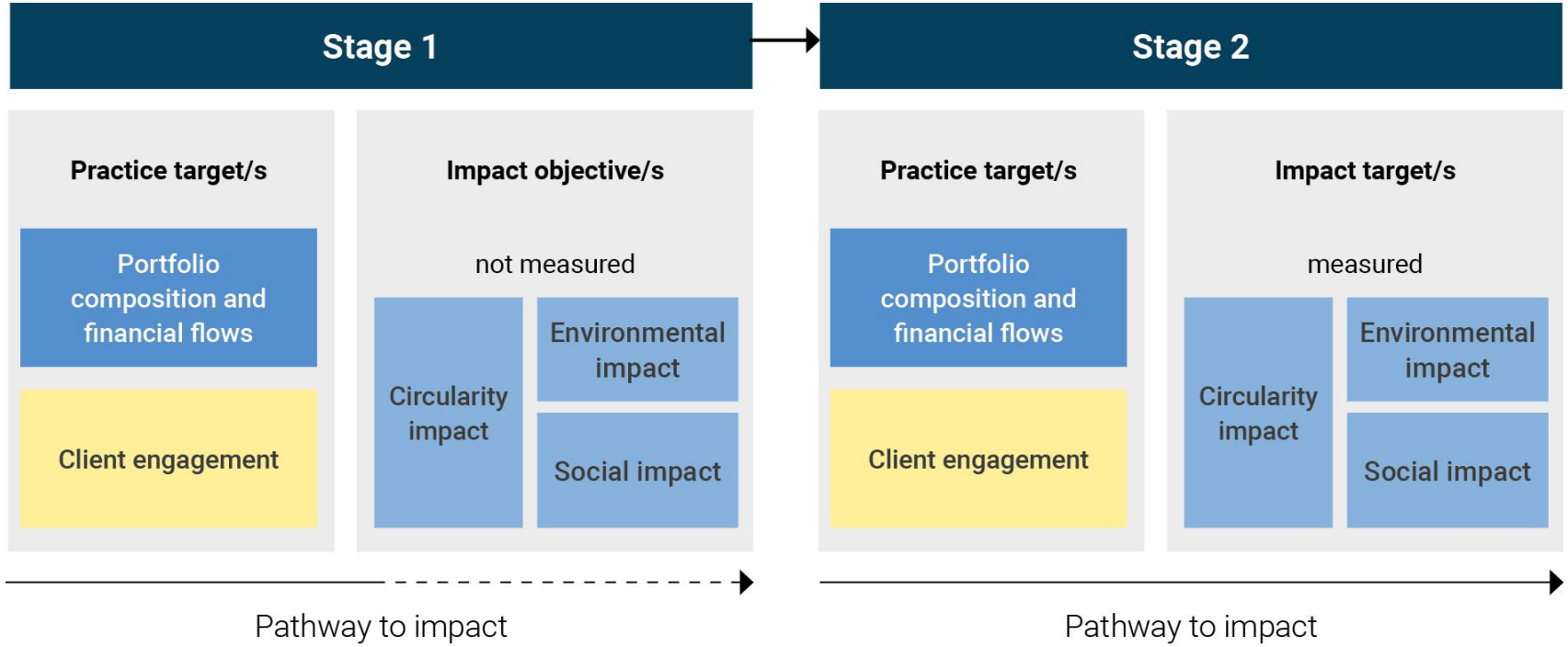
EE as part of your bank's resource efficiency agenda



The framework for resource efficiency and circular economy

Progressive approach to target setting

- Setting **practice targets** with impact objectives
- This acts as a first step in a journey to ultimately set **impact targets** that are required by the PRBs.
- Energy efficiency is well established, thus we encourage you to move to Stage 2 immediately



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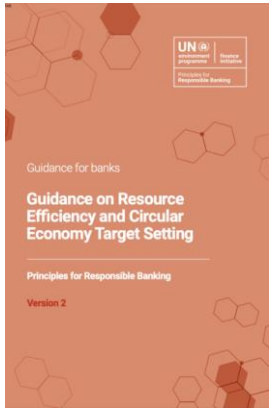
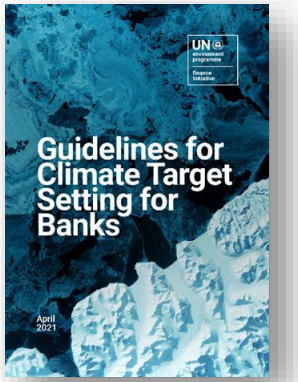


Resource efficiency & Circular economy



Climate Change

PATHWAY TO CLIMATE IMPACT

INPUTS

BANK & REGIONAL CONTEXT

ACTIONS

- Does your bank have a climate strategy in place?
- Has your bank set a long-term portfolio-wide Paris-alignment target?
- Has your bank put in place rules and processes for client relationships (both new clients and existing clients), to work together towards the goal of transitioning the clients' activities and business model?
- Has your bank analyzed (parts of) its lending and/or investment portfolio in terms of financed emissions (Scope 3, category 15); technology mix or carbon-intensive sectors in the portfolio?
- Has your bank developed financial products tailored to support clients' and customers' reduction in GHG emissions (such as energy efficient mortgages, green loans, green bonds, green securitisations etc.)?

OUTPUTS

- Is your bank in an engagement process with clients regarding their strategy towards a low(er)-carbon business model (for business clients), or towards low(er)-carbon practices (for retail clients)?
- What are your absolute emissions (financed emissions = scope 3, category 15) in your lending and/or investment portfolio?
- What is the emission intensity within the relevant sector?
- What proportion of your bank's financed emissions is covered by a decarbonization target, i.e. stem from clients with a transition plan in place?

OUTCOMES

- How much does your bank lend to/invest in green assets / loans and low-carbon activities and technologies?
- How much does your bank lend to / invest in carbon-intensive sectors and activities?
- How much does your bank invest in transition finance?

IMPACTS

- How much have the GHG emissions financed been reduced?
- How much of your bank's portfolio is aligned with Paris (depending on the target set either 1.5 or 2 degrees)?

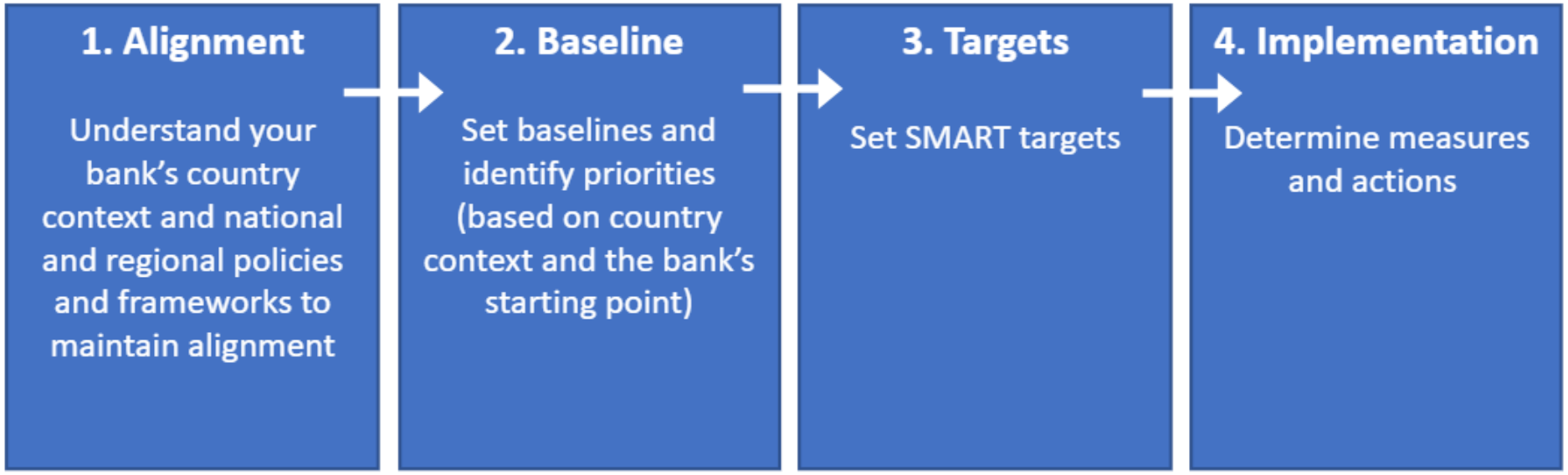
From banks' perspective, energy efficiency can…

Reduce risks linked to an energy-inefficient model, by reducing dependence on energy supply, exposure to price volatility and improving borrower repayment capacities & collateral values

Come with huge **business opportunities** – see IEA presentation coming next

Be a key driver to maximize your positive **impacts on planet & people** in line with your PRB committment

The target setting process (climate or resource efficiency)



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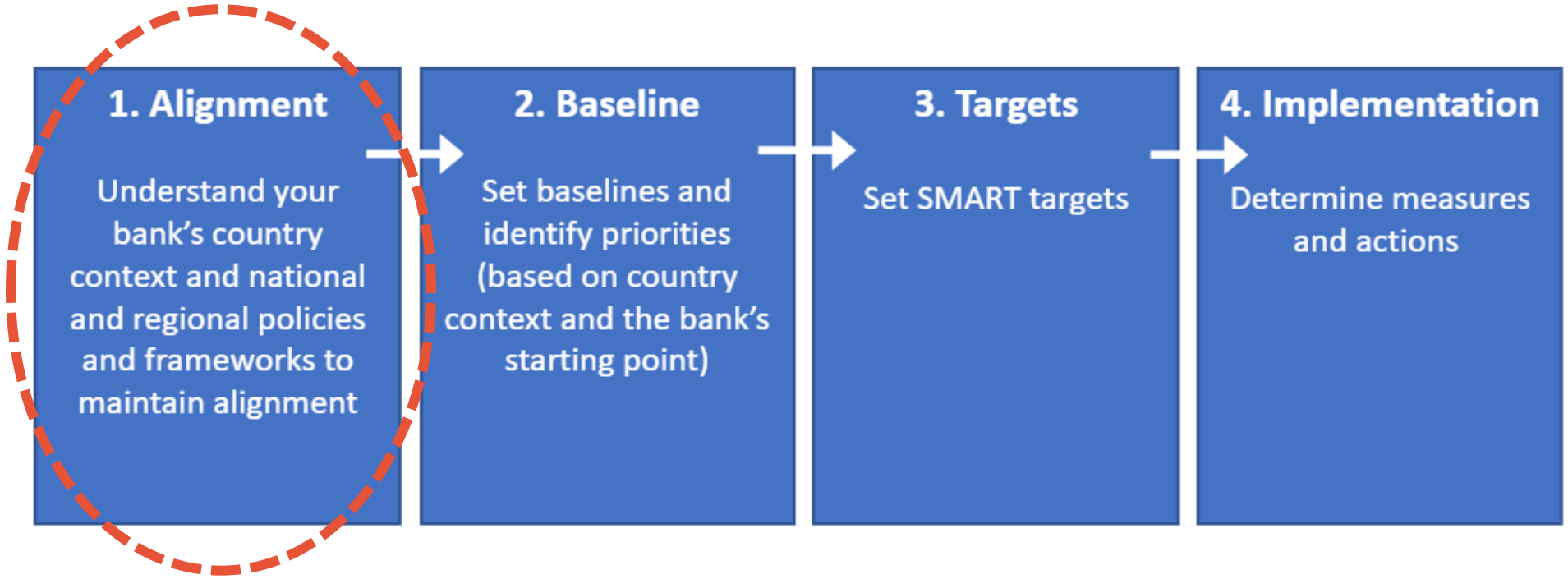


Alignment & context analysis

- Understanding what scenario and ambition to align with
- EE as a business opportunity
- Policy context to support your EE planning

International Energy Agency

Energy Efficiency

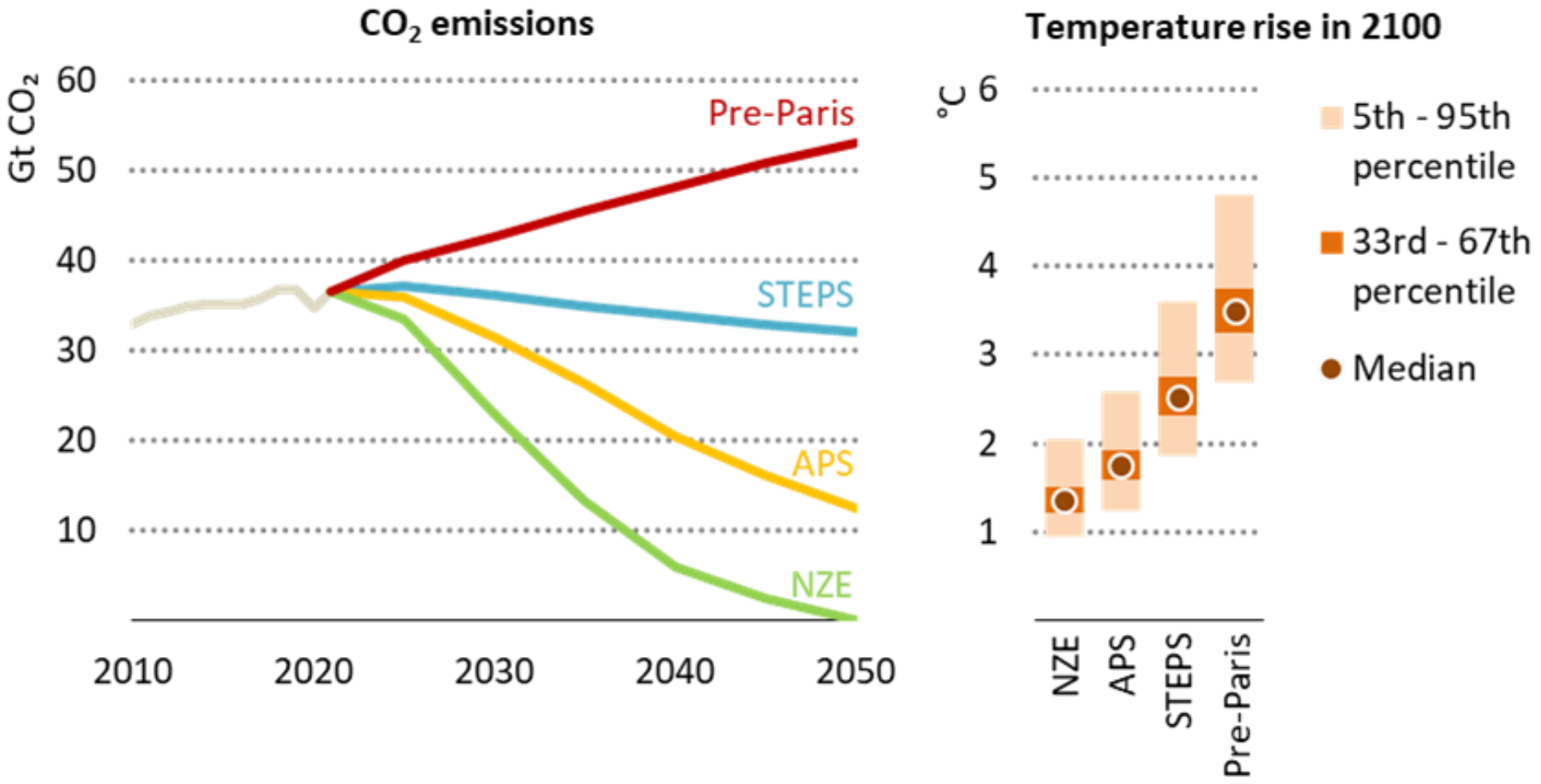
Cornelia Schenk, Energy Efficiency Division, International Energy Agency

UNEP-FI EE training for banks

11th July 2023

Energy efficiency's role in climate goals

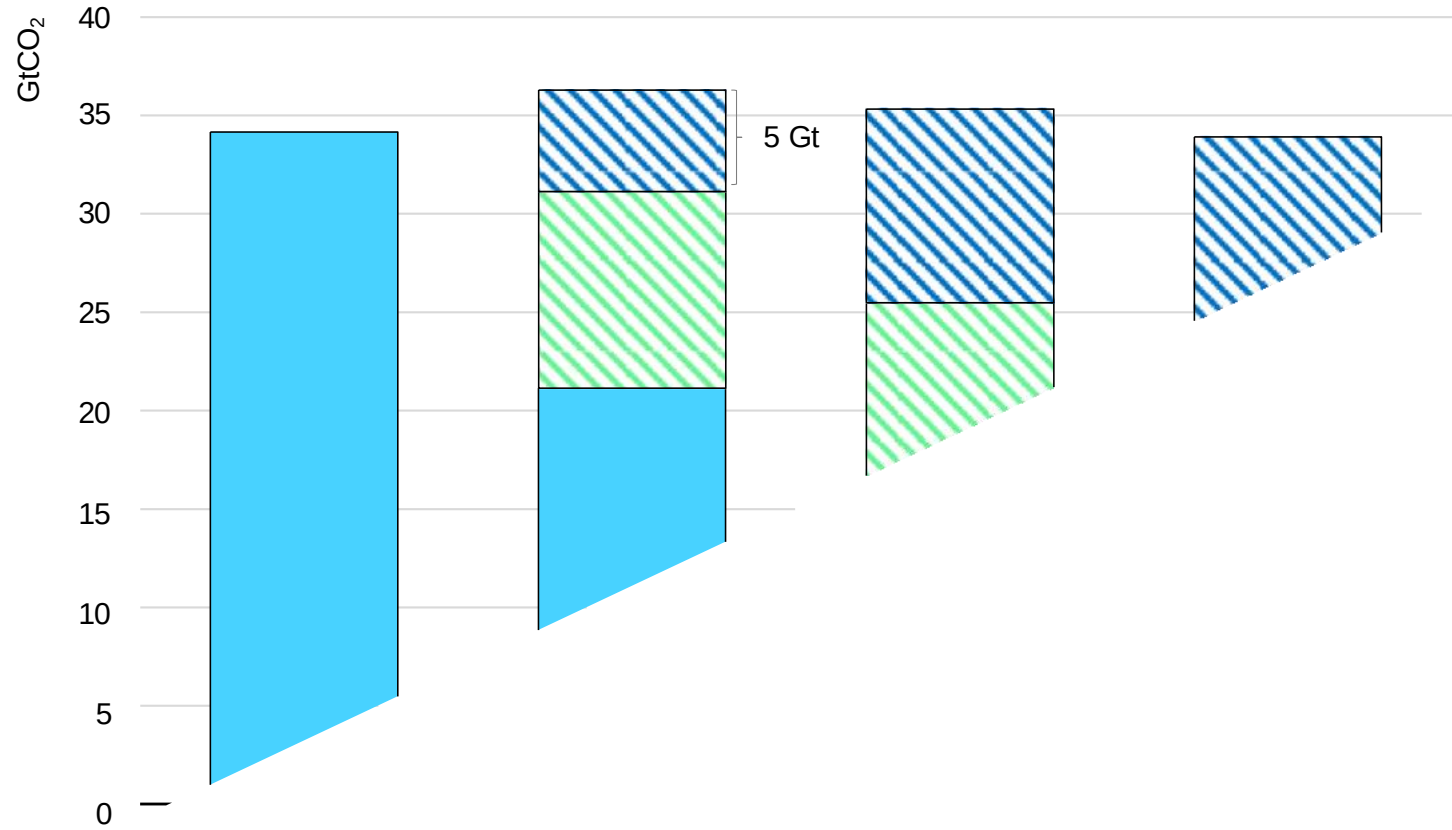
Global CO_2 emissions per scenario and related temperature rise in 2100



Energy efficiency plays a key role in achieving the climate targets and in reaching net zero emissions by 2050

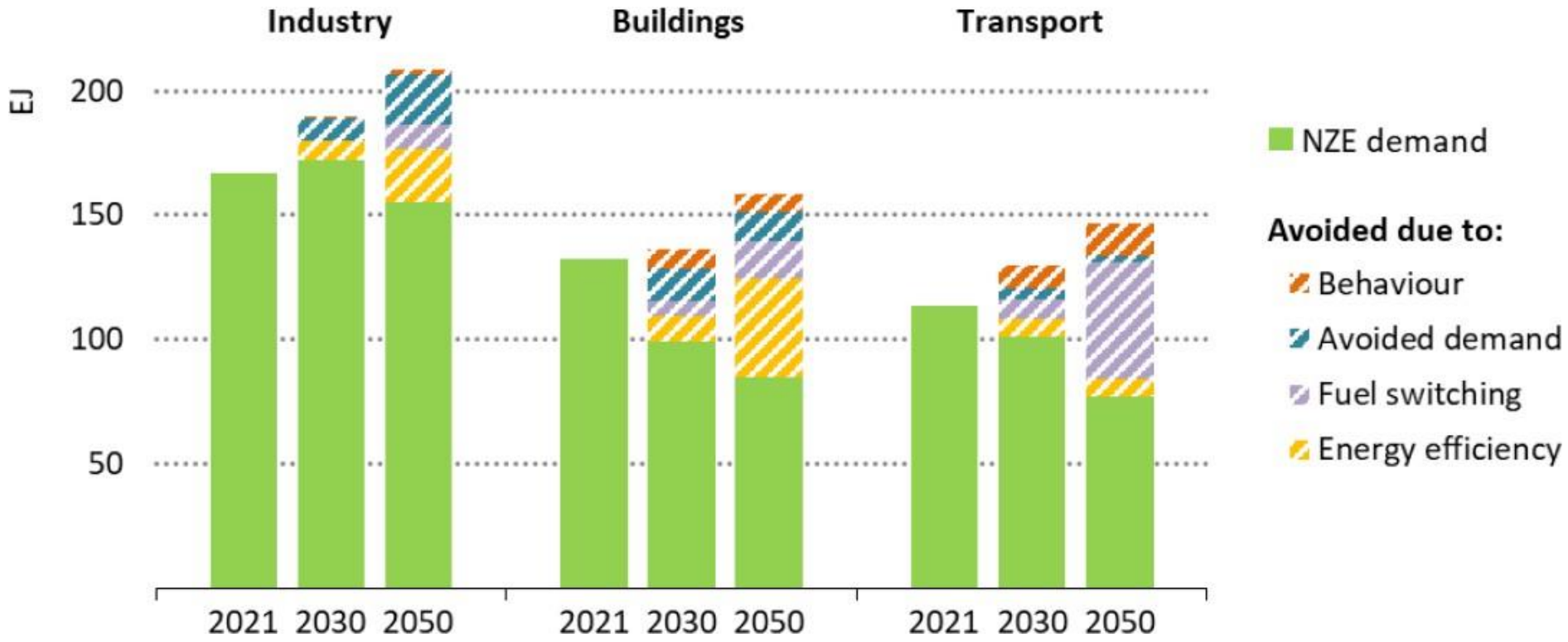
Efficiency provides one-third of the mitigation in Net Zero Scenario

CO2 emissions and main mitigation measures in the Stated Policies Scenario and the Net Zero Scenario, 2020-2050



Annual efficiency improvement needs to double, from 2 to 4% per year during this decade to keep global temperature rise in check

Total final consumption avoided by measure in the NZE Scenario

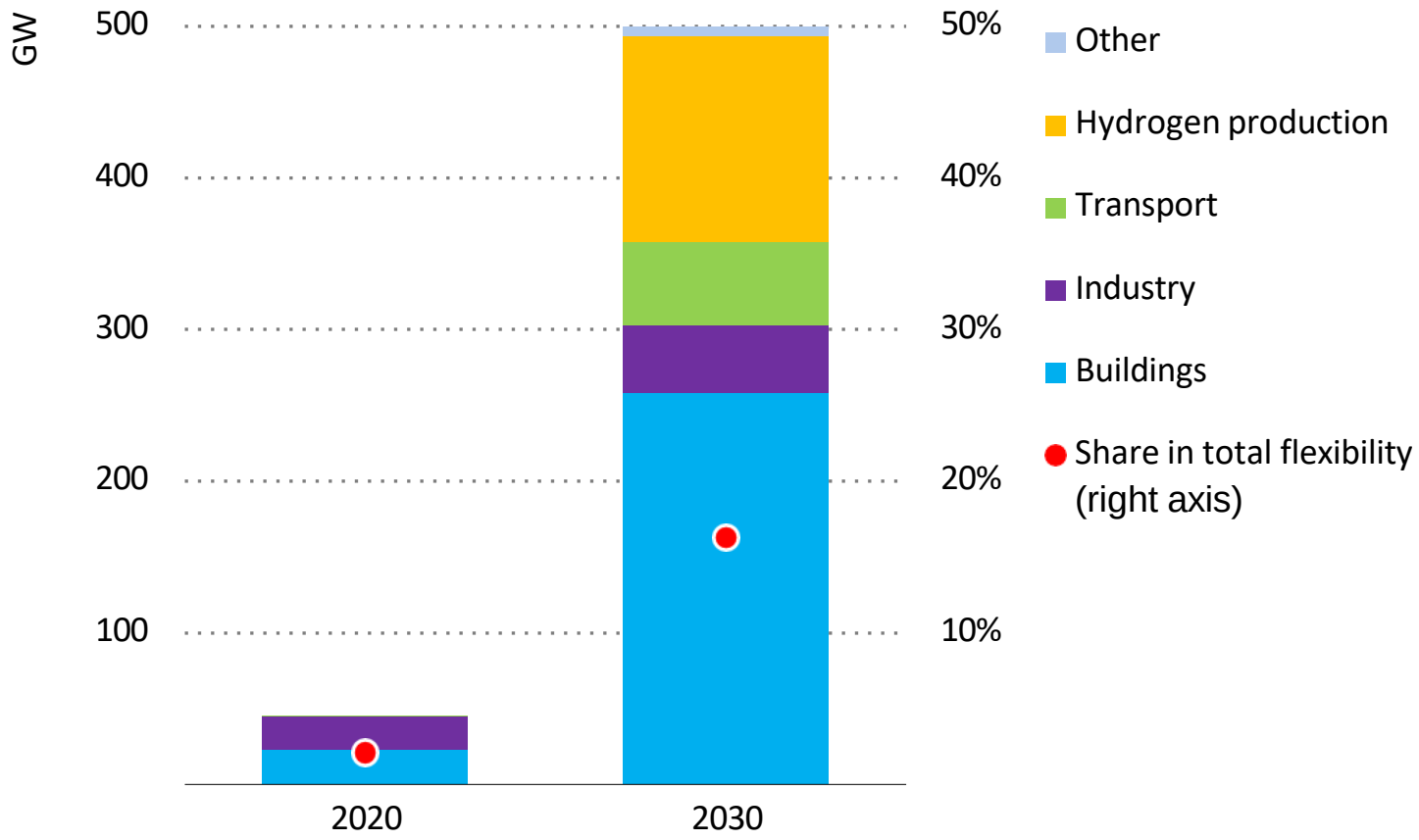


Reducing global energy consumption by buildings can be achieved primarily via energy efficiency and fuel switching (mainly towards electricity)

IEA, 2021 - Net Zero by 2050

Demand-response availability increases tenfold in the next ten years

Demand response availability at times of highest flexibility needs and share in total flexibility provision in the Net Zero Scenario, 2020 and 2030

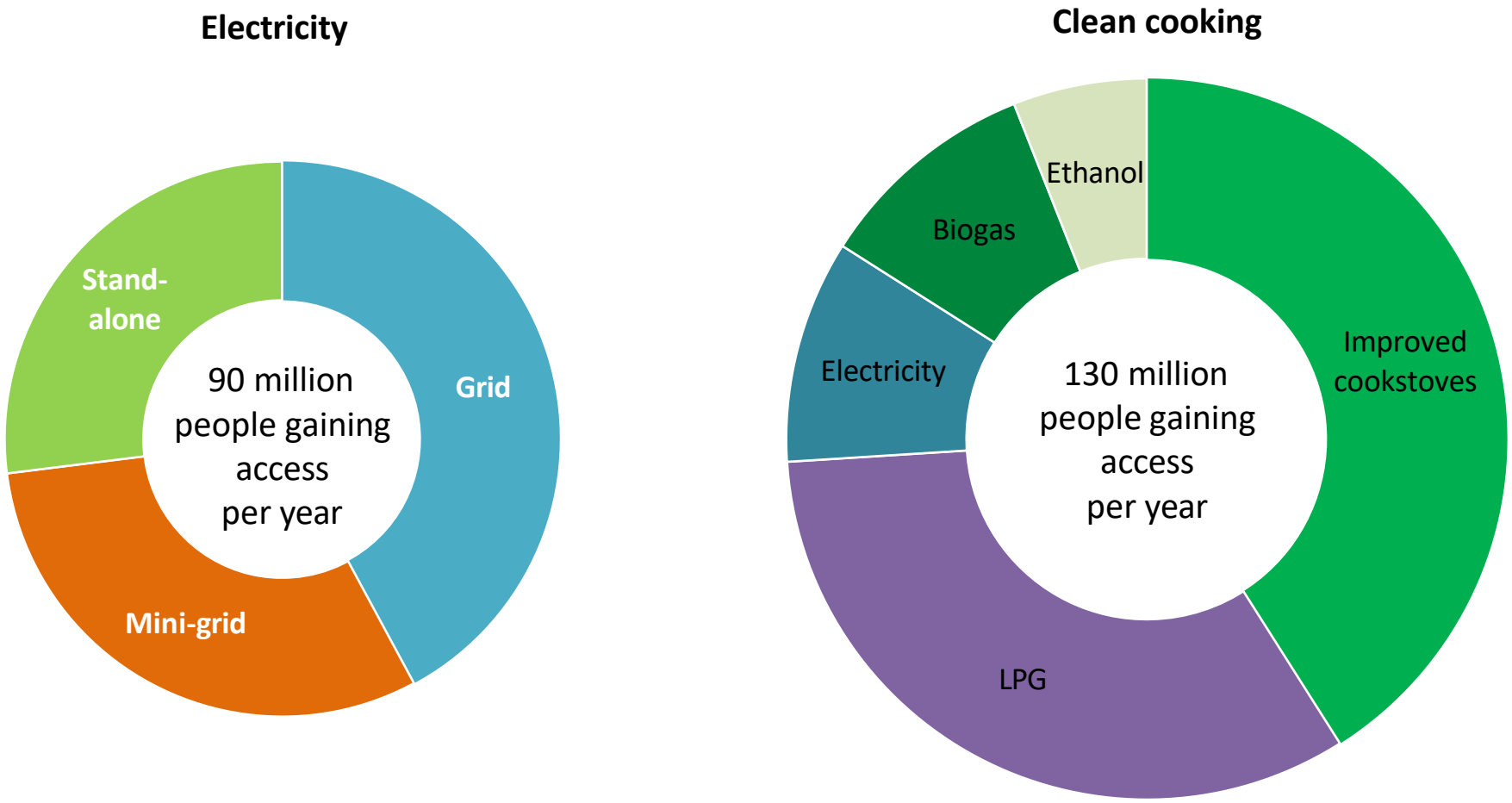


Actions taken in this decade to open markets to demand-side participation, encourage new business models and establish controllability standards for equipment and appliances

https://www.iea.org/reports/demand-response

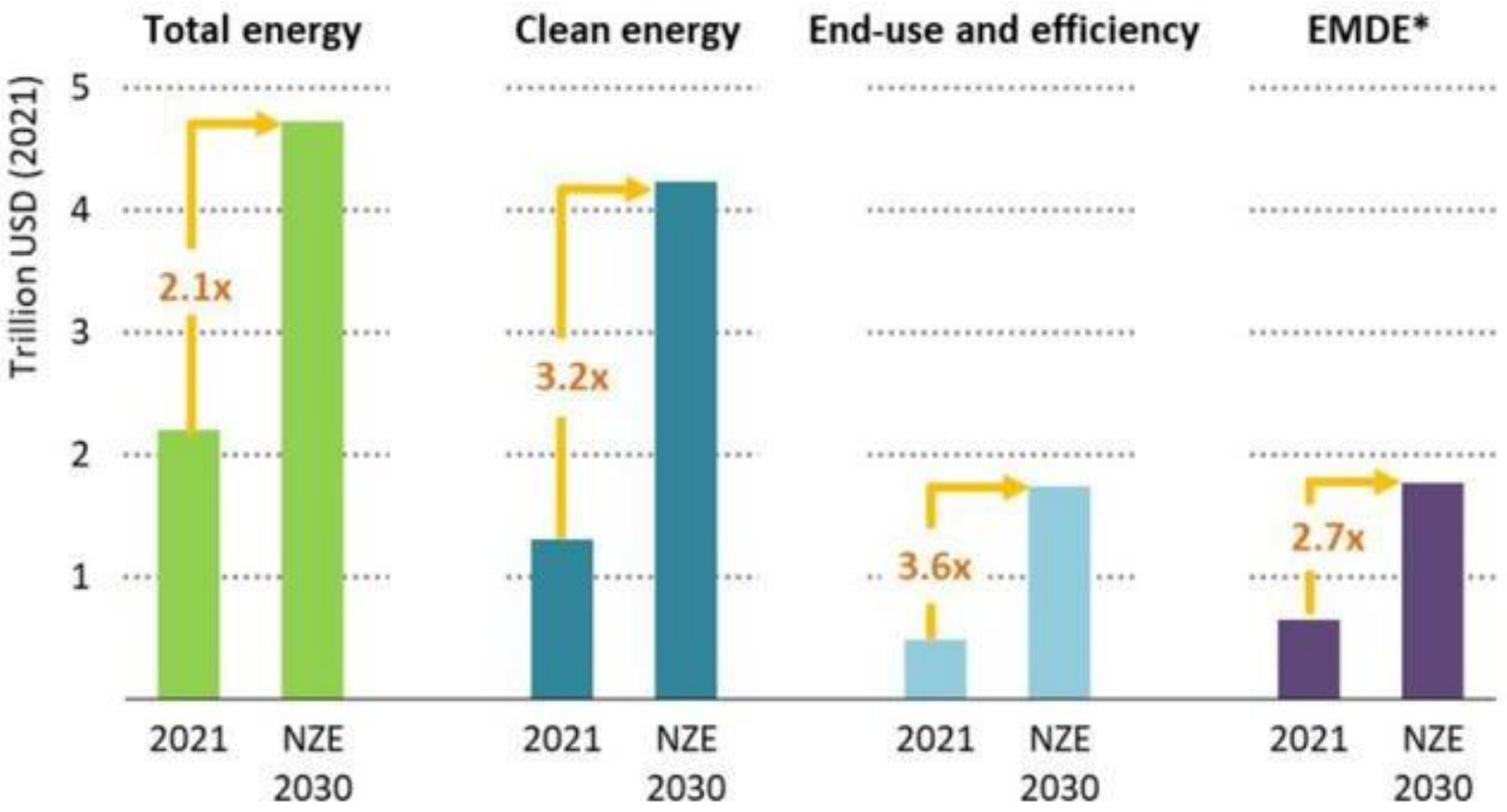
Affordable energy for all Africans is the immediate & absolute priority

People gaining access by technology 2022-30



Investment needs to achieve full access are USD 25 billion per year, comparable to the cost of building just one large LNG terminal

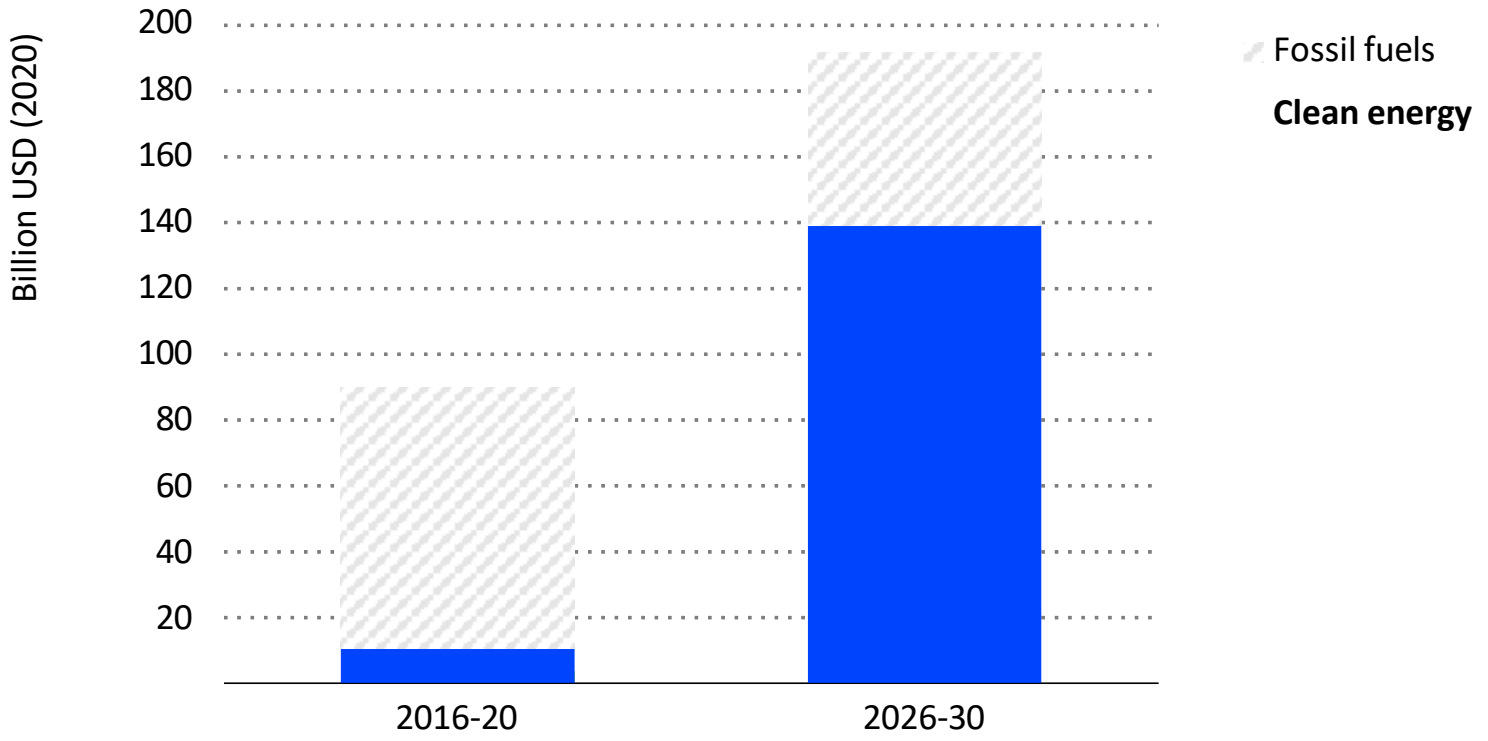
Scale-up of energy investment in the NZE Scenario, 2021 and 2030



Investment in end-uses such as buildings needs to increase substantially, though more is needed to generate clean energy, especially expanded electricity networks.

Increasing financial flows to Africa is an absolute priority

Average annual investments in clean energy and share of these from private sources



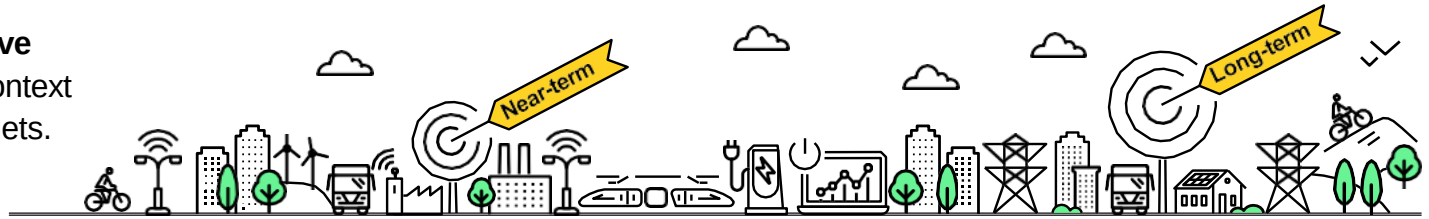
Investment in clean energy needs to grow sixfold. Multilateral development banks must increase concessional finance flows to energy and adaptation in Africa, and must use it strategically to attract greater private sector capital.

Policy Packages for Energy Efficiency

In all sectors the greatest efficiency gains are achieved by a package of policies that combine three main types of mechanisms: Regulation, information and incentives. Careful design and implementation will deliver efficiency's full potential to enhance energy security, create jobs, increase living standards, cut energy bills and reduce emissions.

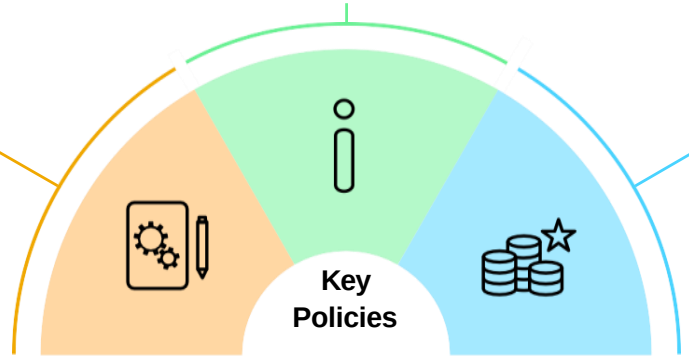
Targets

Policies are more effective when they are set in the context of clear strategies and targets.



Information helps people make more efficient choices in what they buy and how they use energy.

Regulation is essential to exclude the worst performing equipment and practices from the market, to drive average efficiency levels up, and to set rules for measurement of performance.



Incentives make efficient options more attractive and speed up the upgrade and replacement of appliances, buildings and vehicles. They also encourage the use of new technologies and practices.

Essential elements

Implementation is as important as policy design.

Ensuring that the **resources** are in place to put policies into action.

Address **vital elements** such as capacity building, enforcement, monitoring.

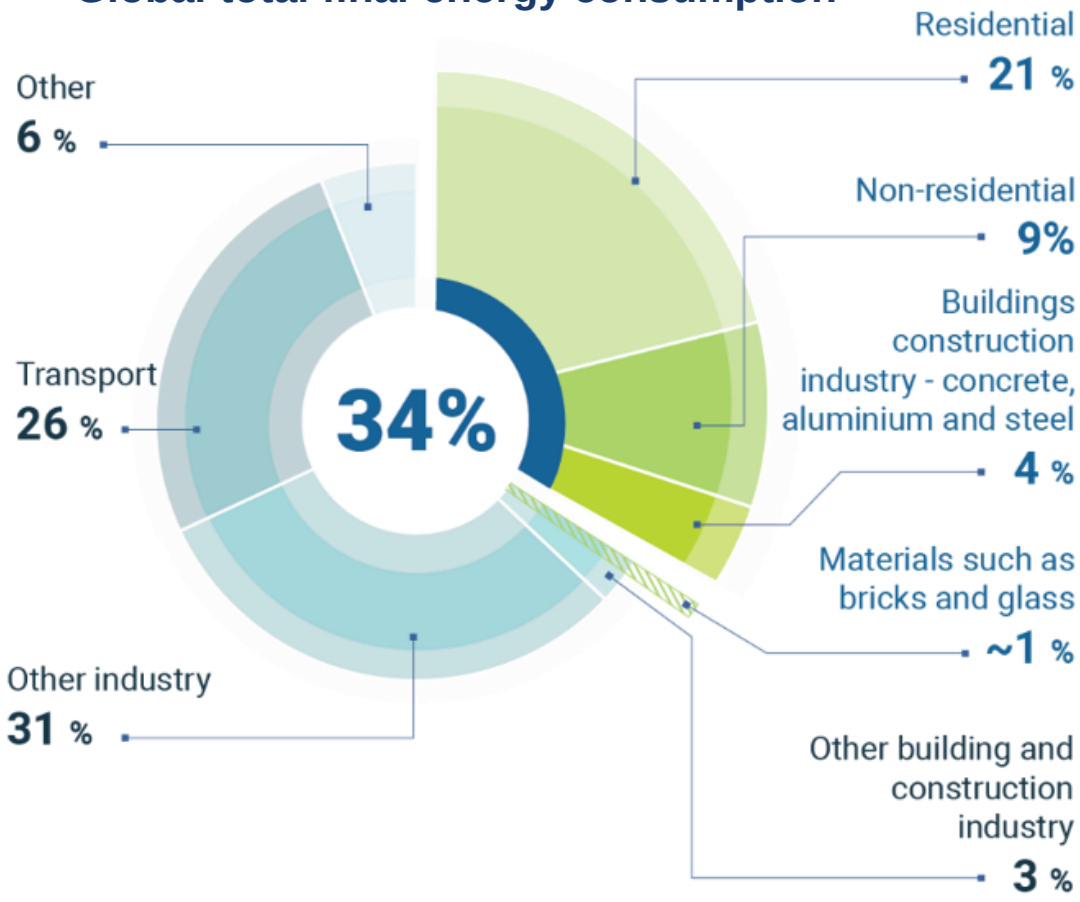
It is important to continually assess **policies and programmes** so as to keep up to date with technology developments.

What are common barriers to improving energy efficiency in your country?

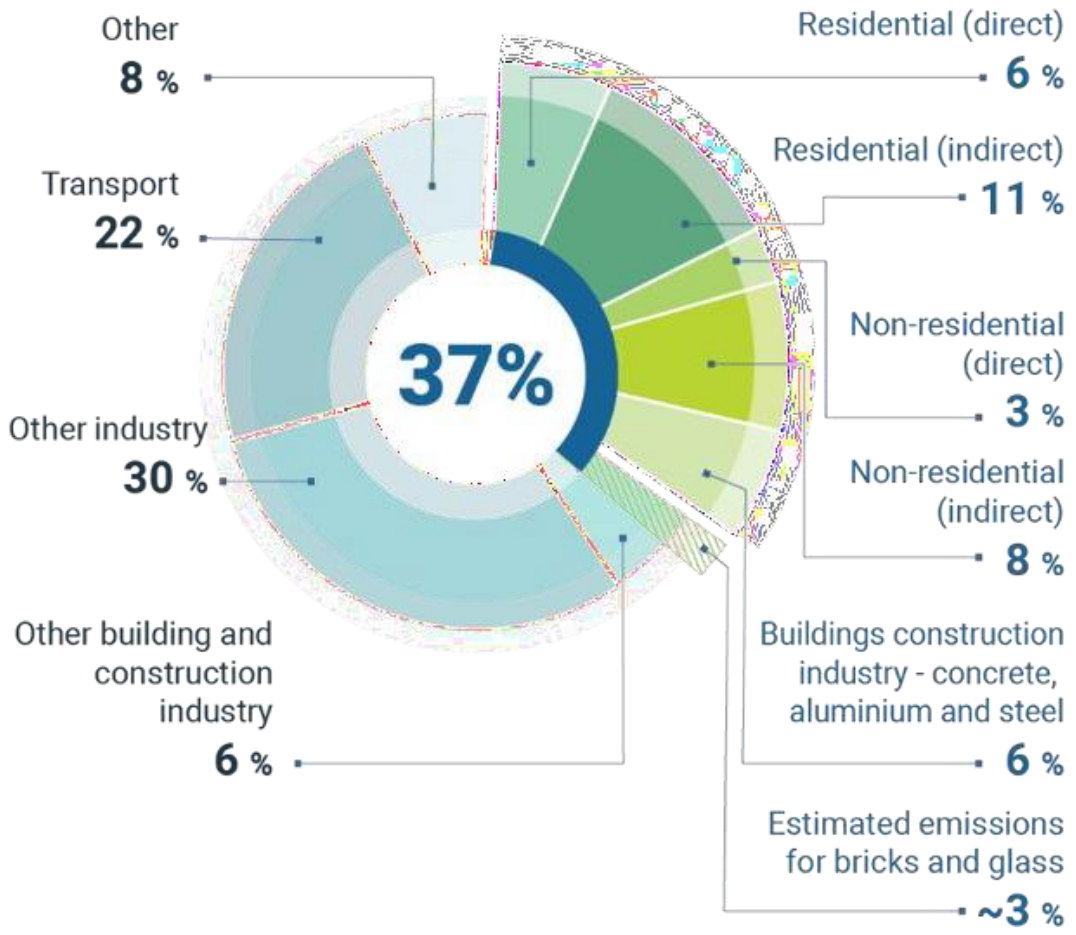
Buildings

Buildings play an important role in the global energy system

Global total final energy consumption



Global CO2 emissions

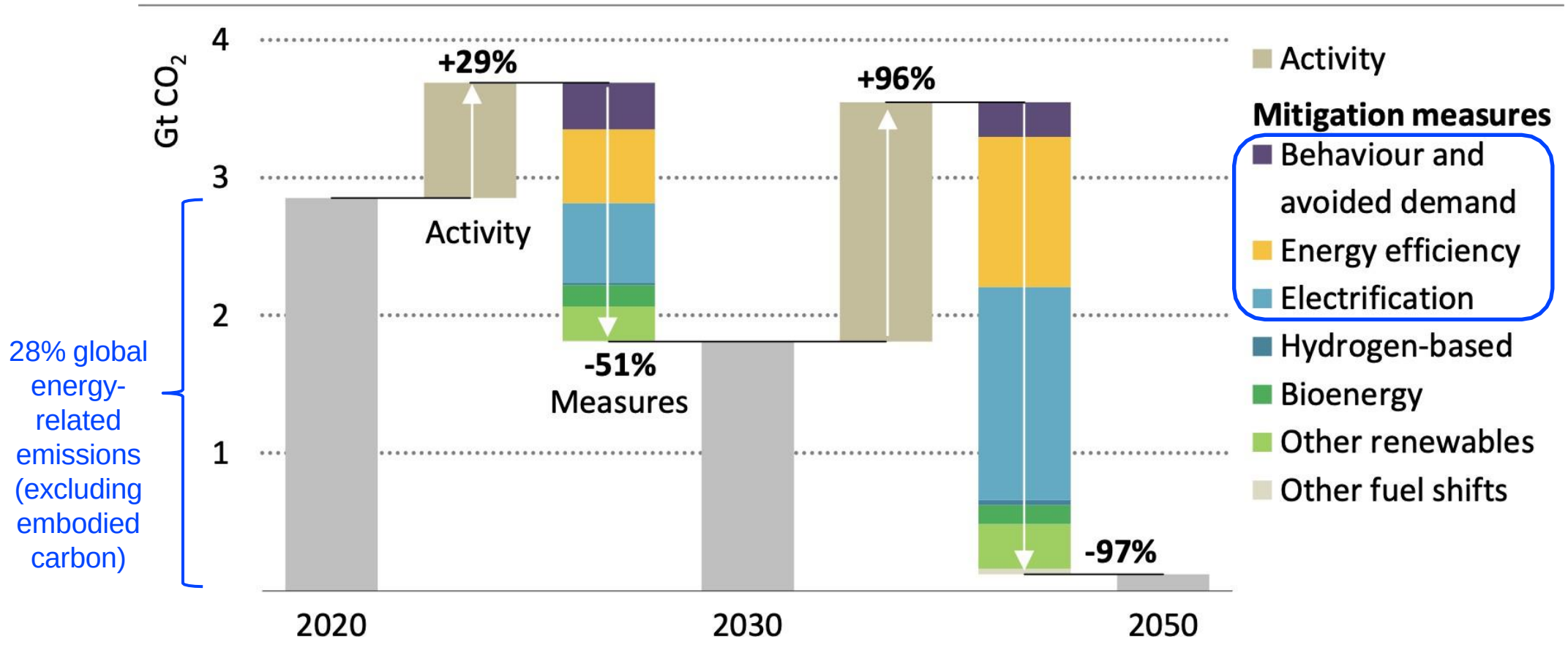


Building energy use contributes to a substantial proportion of global energy consumption and CO_2 emissions

 Source: IEA Energy Technology Perspective 2022

Buildings in a Net Zero Emissions Scenario

Global direct CO2 emissions reductions by mitigation in buildings in the NZE

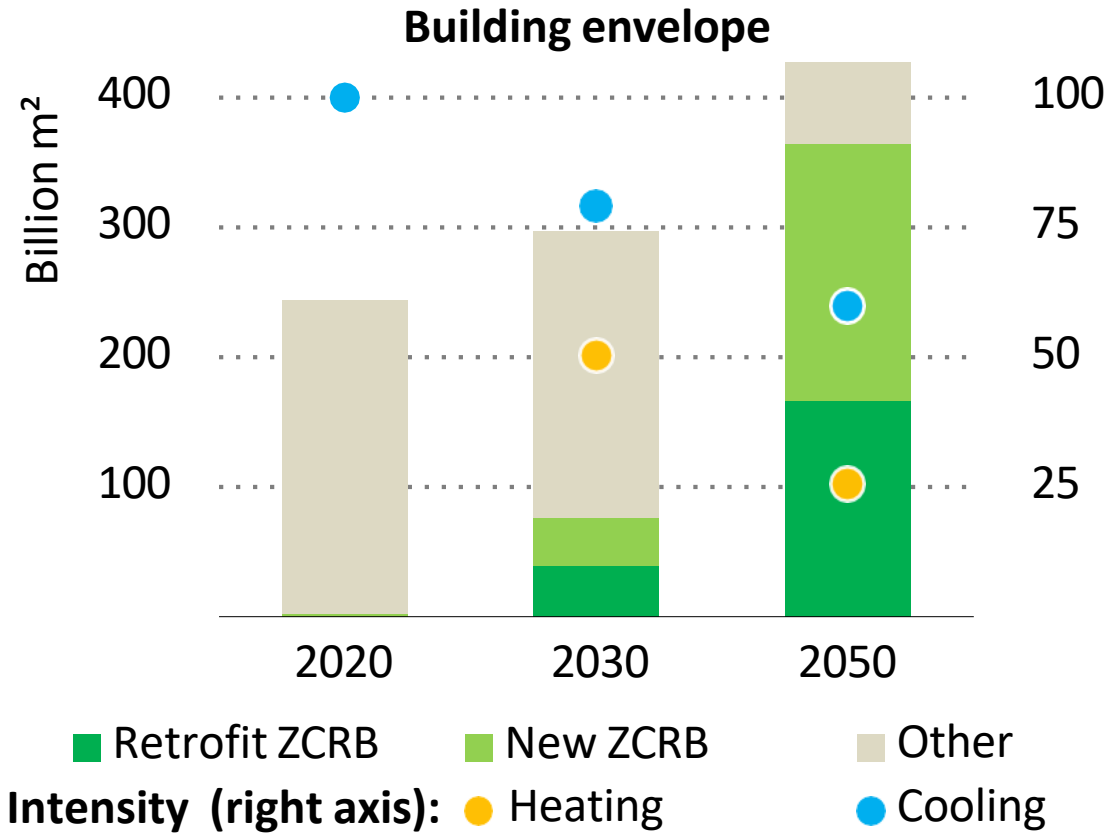


Electrification and energy efficiency account for nearly 70% of buildings-related emissions reductions through to 2050

Source: IEA (2021), Net Zero by 2050, IEA, Paris https://www.iea.org/reports/net-zero-by-2050

Improving energy efficiency and electrification go hand in hand

Global building and heating equipment stock in the NZE



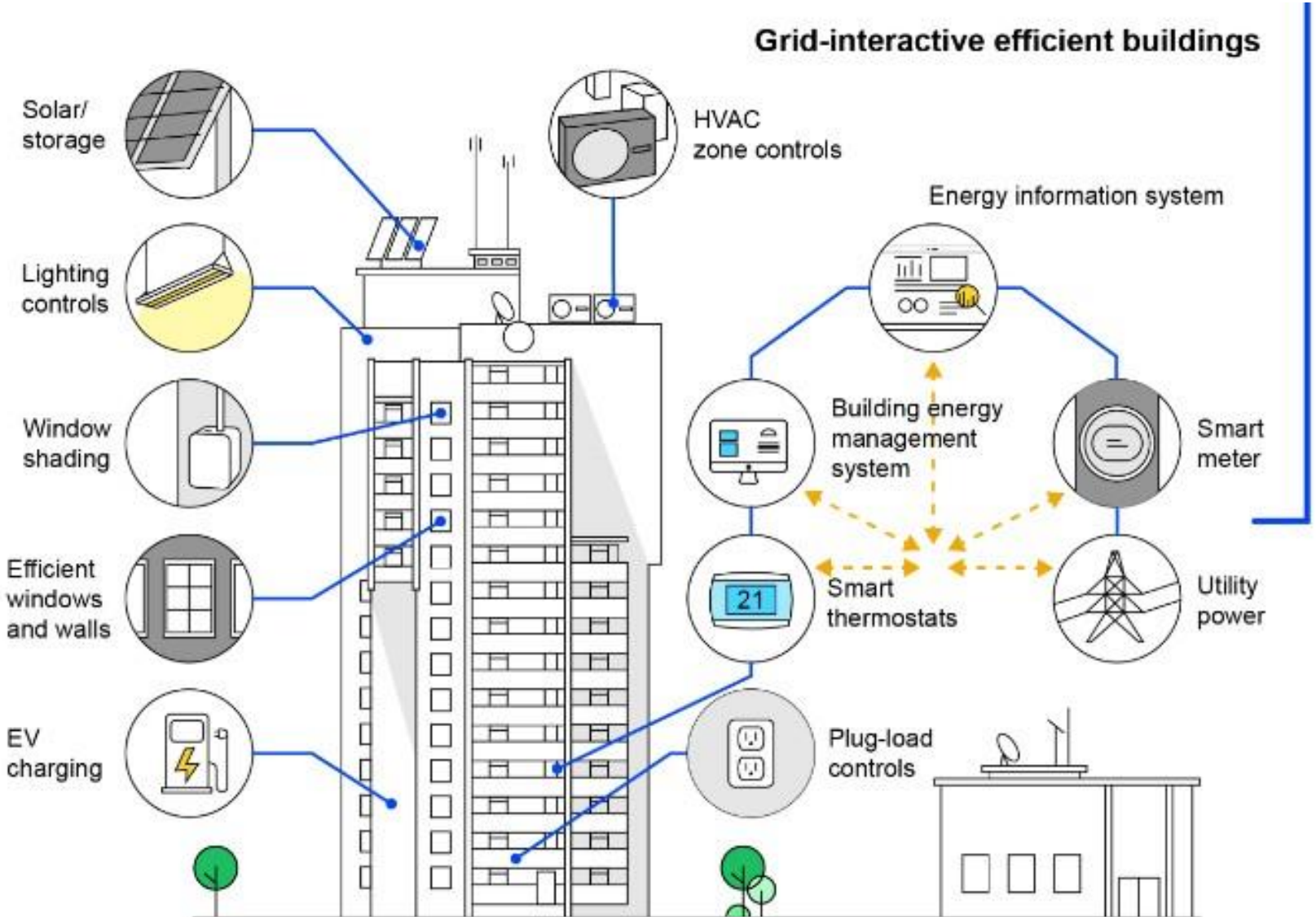
What is a ZCRB :
A zero-carbon-ready building is highly energy efficient and either uses renewable energy directly, or uses an energy supply that will be fully decarbonised by 2050.

This means that a ZCRB will become a zero-carbon building by 2050 without any further changes to the building or its equipment.

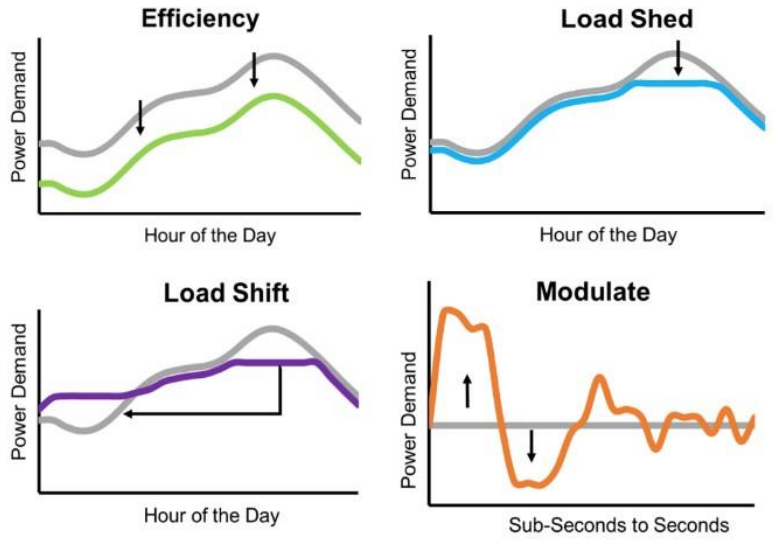
By 2050, over 85% of buildings are zero-carbon-ready, reducing average useful heating intensity by 75%, with heat pumps meeting over half of heating needs

IEA (2021). Net Zero by 2050: A roadmap for the global energy sector

Grid-interactive buildings – provide efficiency and flexibility



Efficient grid-interactive buildings are energy efficient buildings with smart technologies characterized by the active use of distributed energy resources (DERs) to optimize energy use for grid services, occupant needs and preferences, and cost reductions in a continuous and integrated way



Grid interactive buildings and smart charging for EVs can help to manage the expanding share of variable renewable energy and increasing peak demand

Financing EE construction and retrofits: Concessional loans

Green Mortgages: to build a new home with sustainability rating or to invest in renovating an existing unit to high sustainability standards.

Banks typically offer lower interest rates or increase the loan amount available to borrowers, as green buildings represent a lower risk investment

Benefits
Concessional finance; unlocks private sector capital for renovation; adds mortgage banks as a new market player; typically coincide with renovation decisions

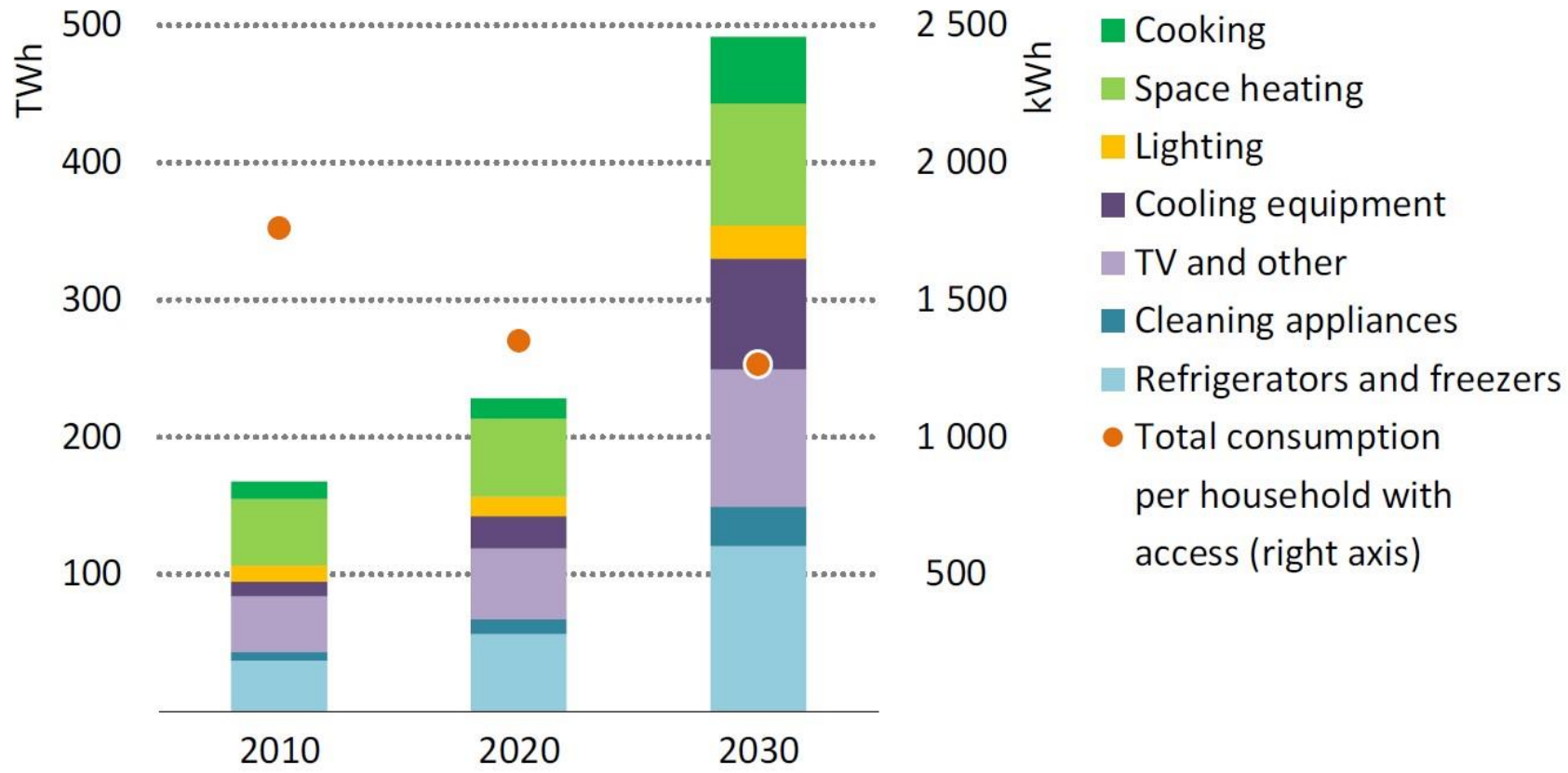
Examples

- Energy Efficient Mortgages Initiative: EU
- UK Green mortgage market: over 50 products
- Mexico, Colombia and Péru: Green mortgage schemes
- South Africa: Absa Eco Home Loan

Appliances

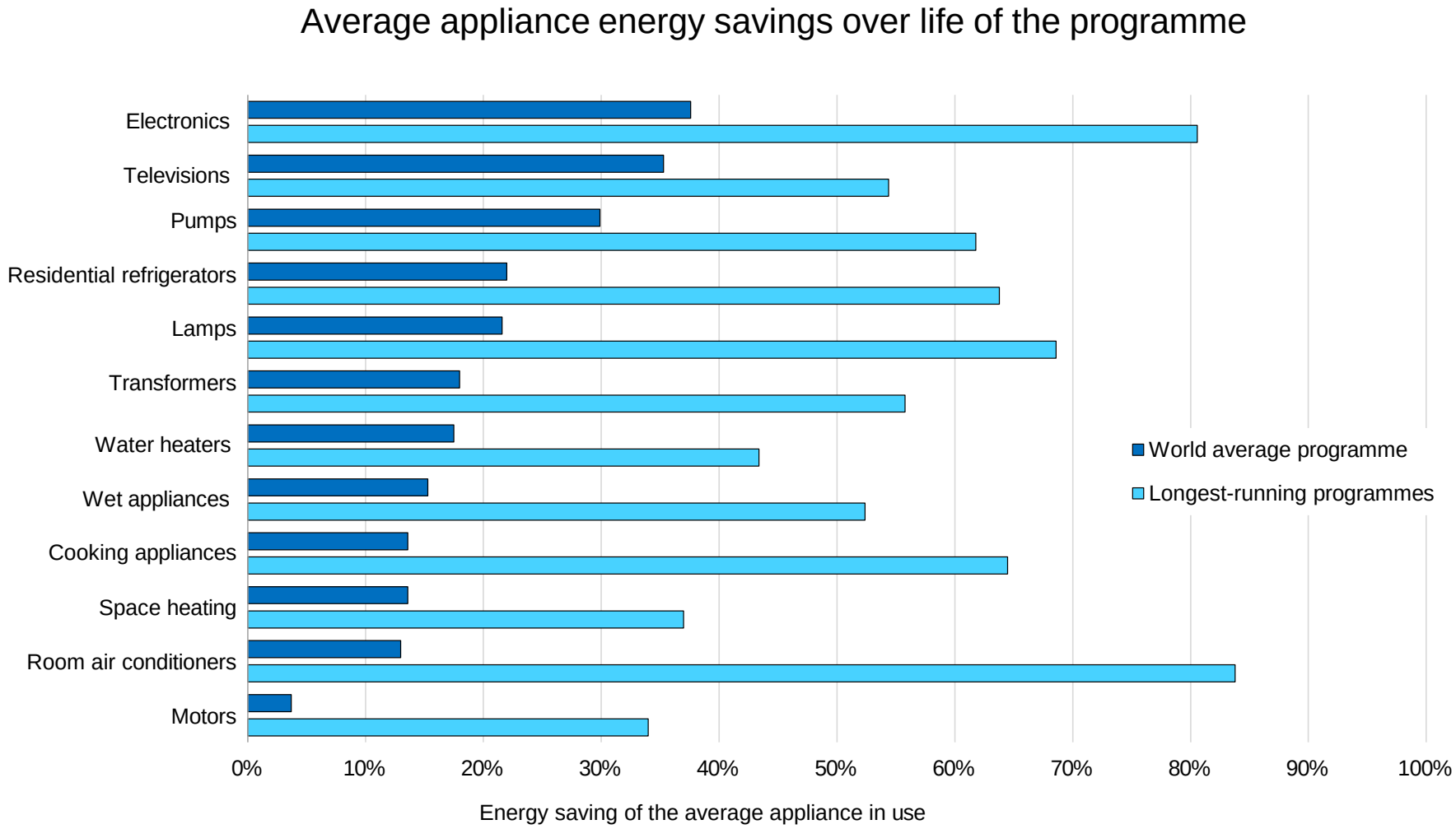
Household electricity demand in Africa more than doubles by 2030

Household electricity consumption by type of demand in the SAS



Cooling and refrigeration appliances drive most of the increase in household electricity demand, as all households gain access to electricity and incomes rise

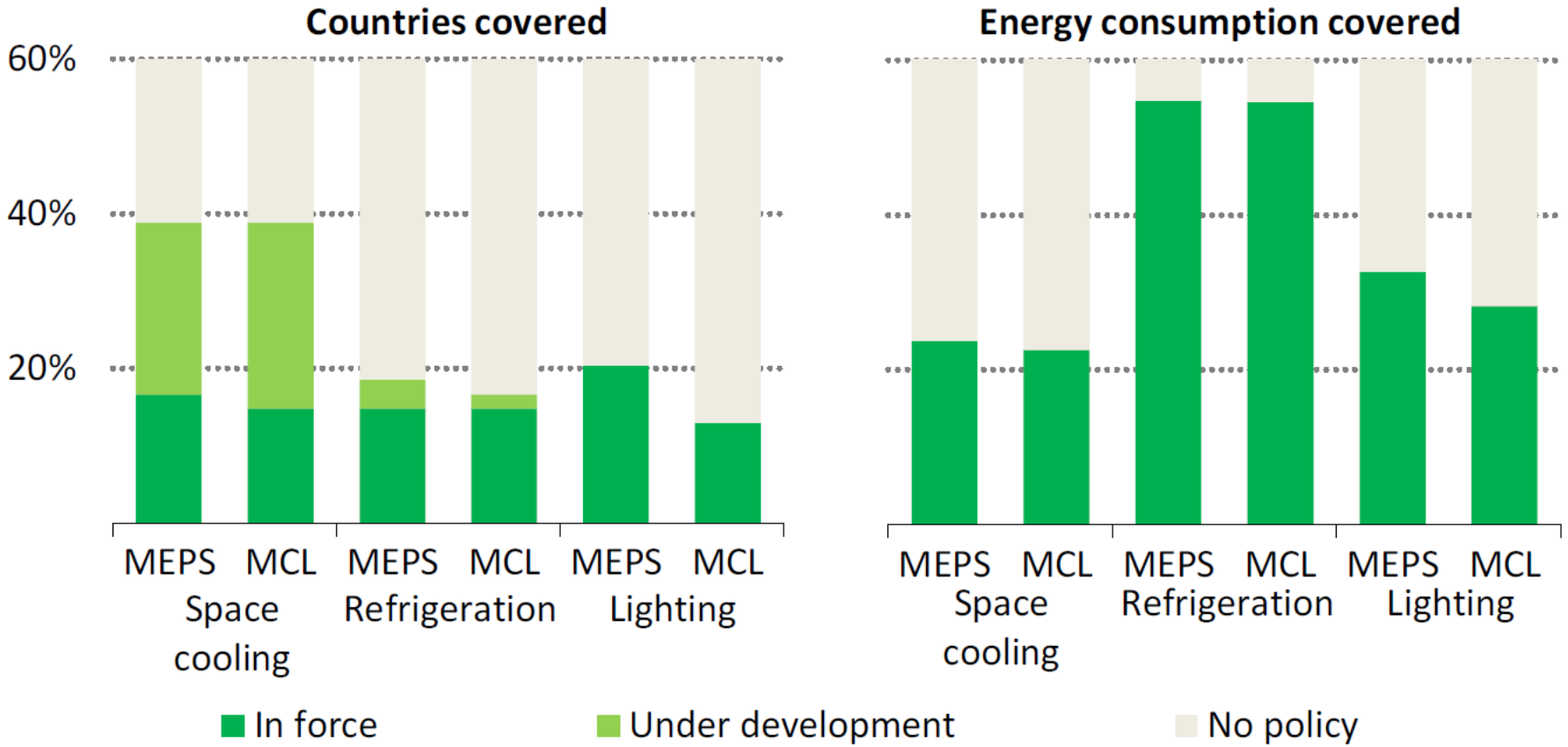
Efficiency policies have delivered substantial energy savings



The longest running efficiency programmes have reduced appliance energy consumption by over half

Minimum energy performance standards and labelling are key policy measure

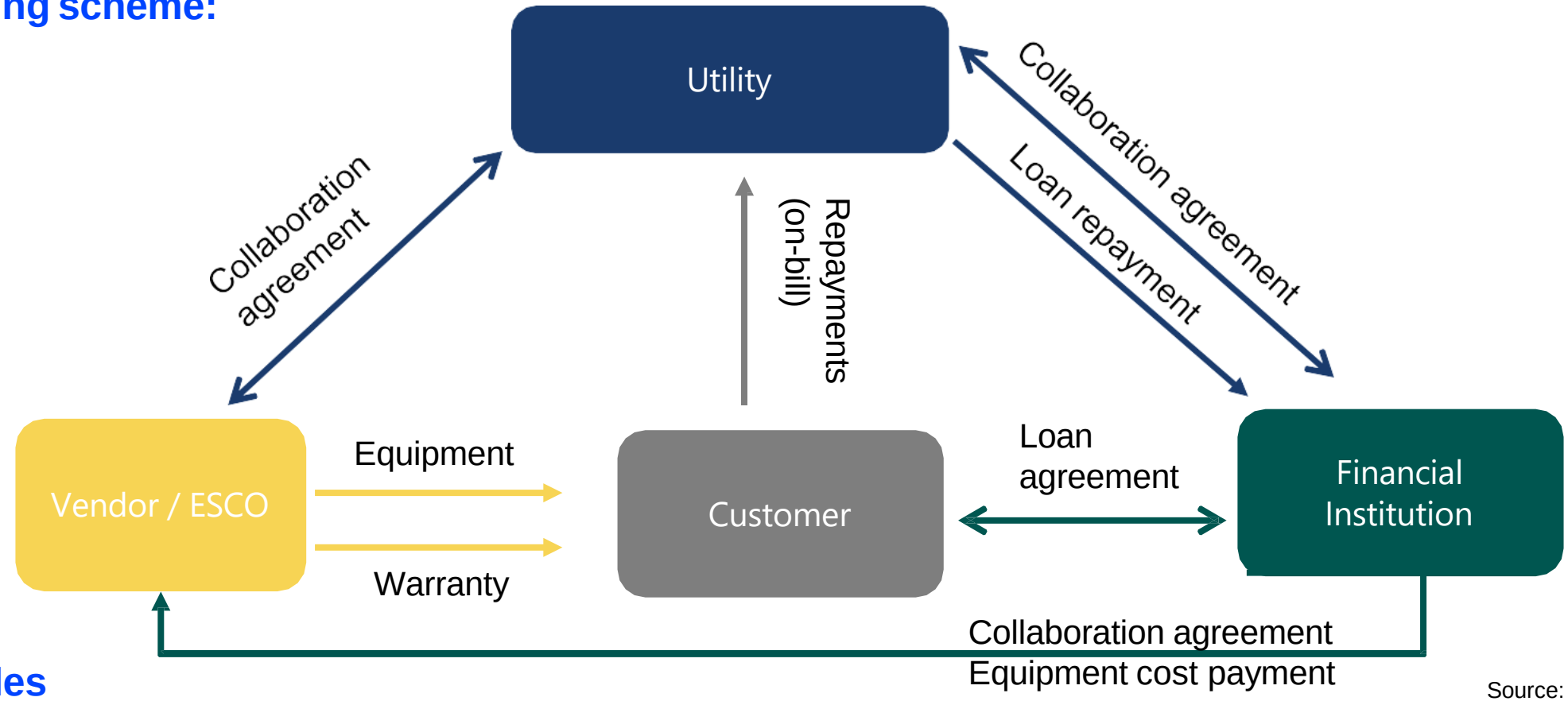
Share of African countries and demand covered by mandatory MEPS and MCL in the household sector, 2021



40% of countries in Africa have adopted efficiency standards and labelling for cooling equipment or are planning to do so, and around a fifth for refrigeration and lighting

Utility on-bill financing and on-wage financing

Financing scheme:



Source: IEA based on BASE Foundation 2023

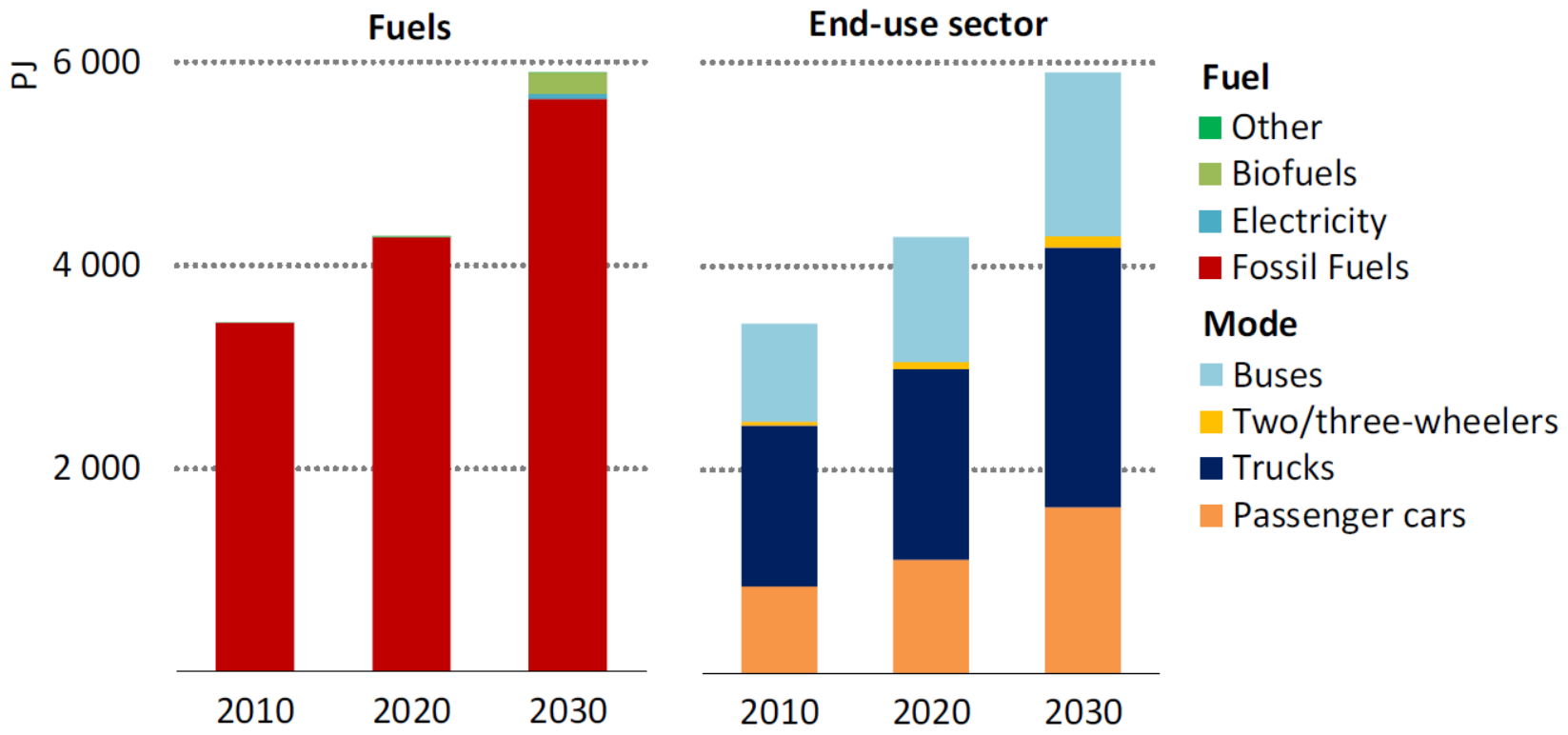
Examples

- ECOFRIDGES Senegal: On-bill financing for ACs and refrigerators for pre-paid utility customers
- ECOFRIDGES-GO Ghana: Green on-wage financing programme with repayment through wage deductions
- SANEDI South Africa: Efficient appliances programme through OBF

Transport

Road transport energy use in Africa rises by almost 40% over 2020- 2030

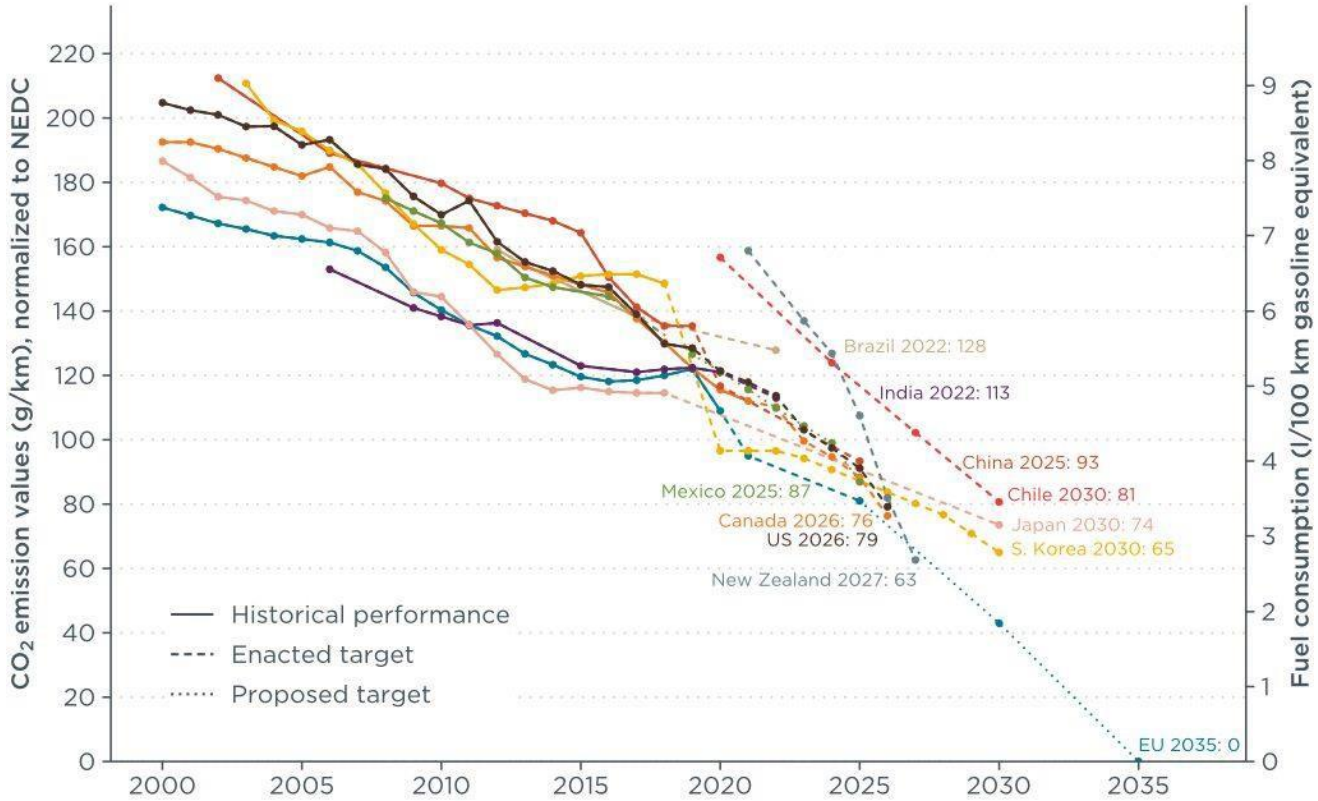
Road transport energy demand by fuel and mode in the SAS



Rapid fleet explansion, especially cars and trucks, drives up transport energy demand in 2030

Fuel economy standards play a key role in improving efficiency

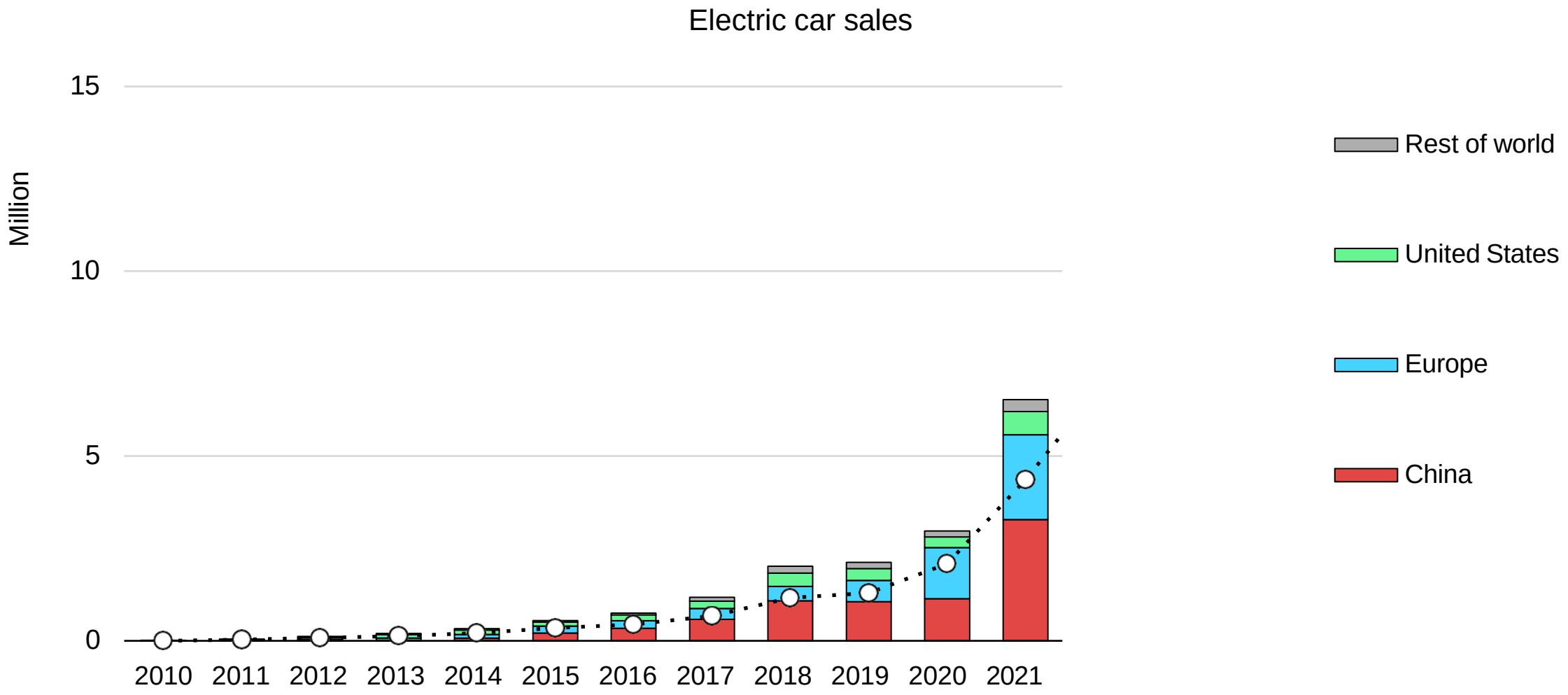
Passenger car CO_2 emission and fuel consumption values



ICCT, 2022

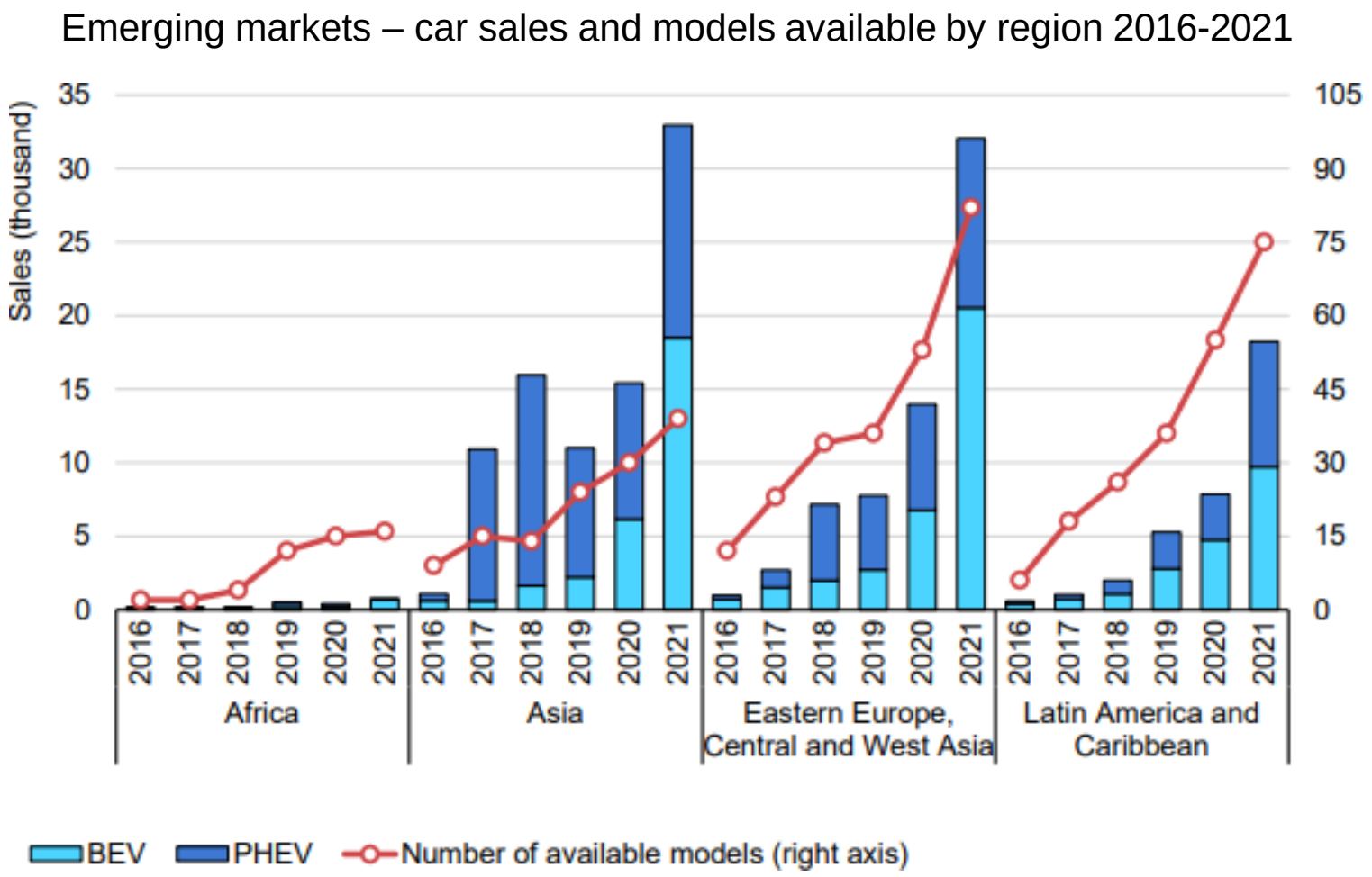
Countries with regulations and/or efficiency-based purchase incentives in place improved efficiency on average 60% faster than countries without such policies

Electric car sales exceeded 10 million in 2022



Sales of electric cars were up 55% in 2022, led by China, Europe and the United States. 2023 is set to be another record year.

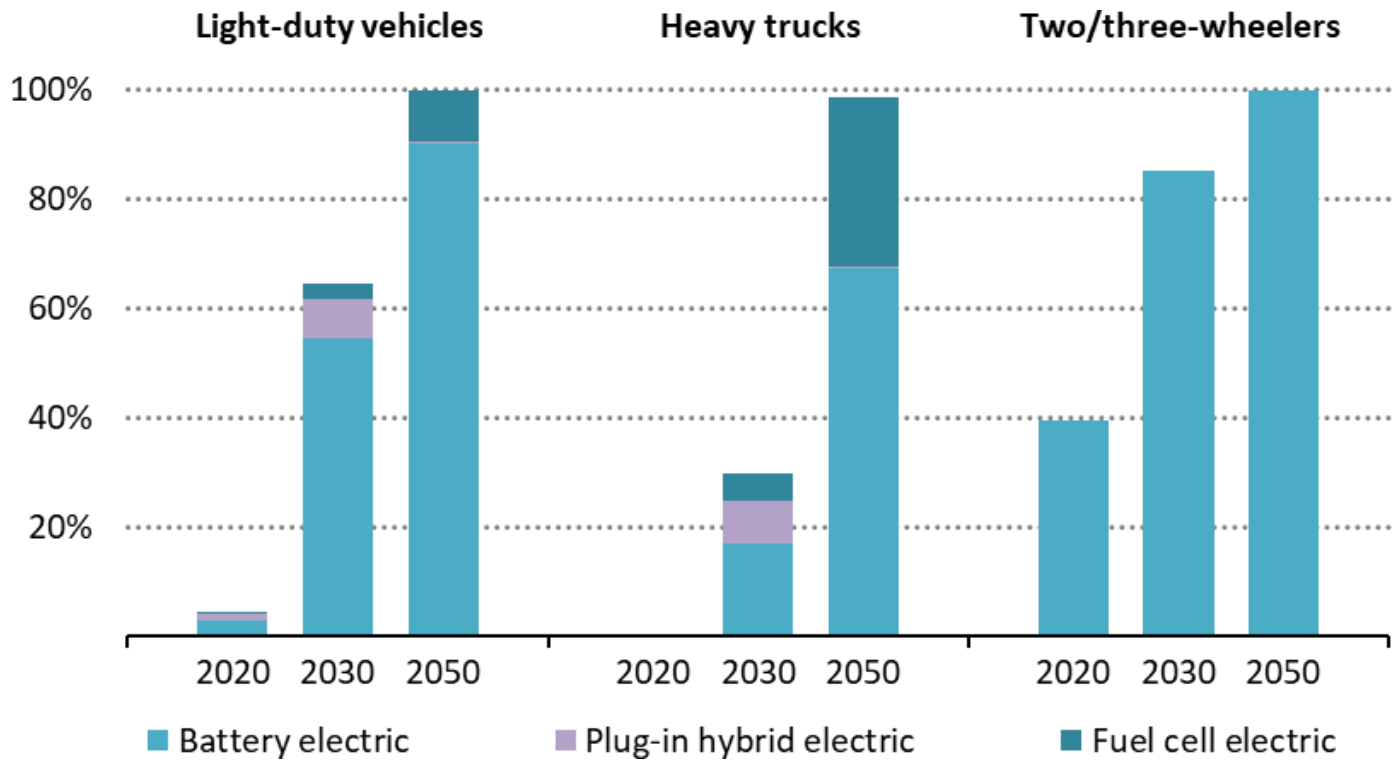
Emerging markets play a key role in electrification



Electric car sales spiked in emerging markets in 2021

Electrification differs by vehicle type

Global share of ZEVs in total sales by vehicle type in the NZE



IEA, 2021

Light-duty vehicle sales are about 100% ZEVs by the late-2030s in advanced economies and by 2040 in emerging market and developing economies

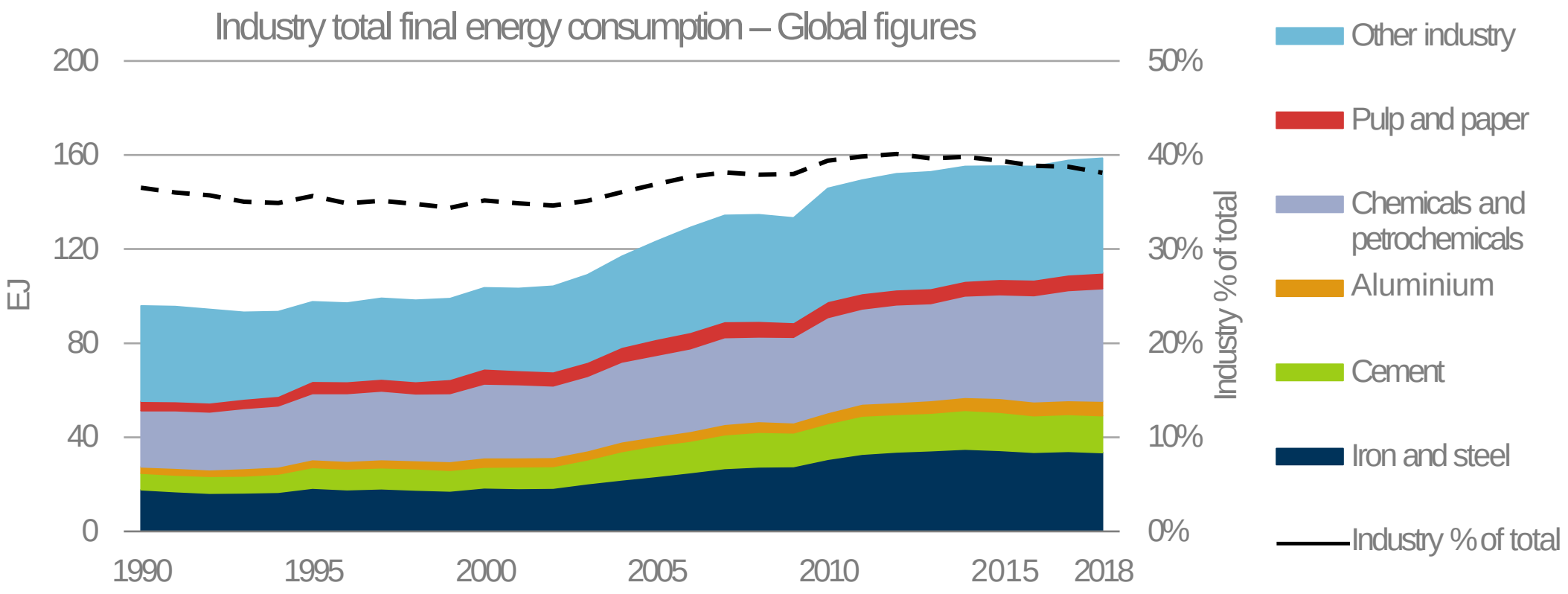
Electric vehicle financing examples

- **Green (Vehicle) Loan Financing**
  - Examples Kenya, Mauritius,

- **Innovative and digital lending solutions**
  - Examples: fintech mobility companies like
  - Moove operating across Africa (limited options for electric cars), or
  - REVFIN or Three Wheels United offering electric two- and three-wheeler loans to mostly financially excluded customers in India

Industry

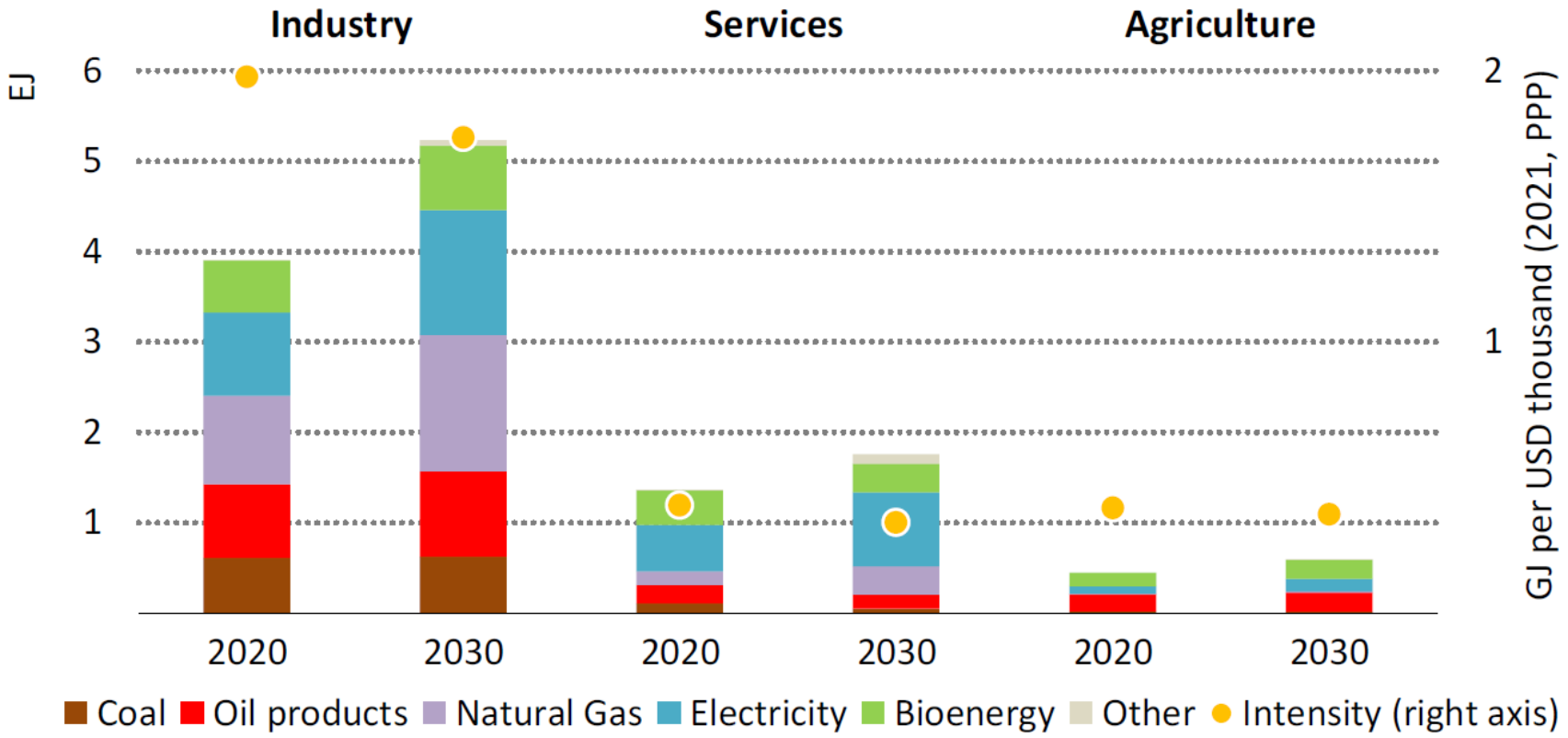
Industry contributes to a large share of global energy use



Globally, industry total energy use has grown more than 1.5 times over the last 25 years driven by the doubling of energy use from the chemical and petrochemical and iron and steel sectors which represent more than 60% of that growth.

Rising energy needs for productive uses are supported through energy efficiency

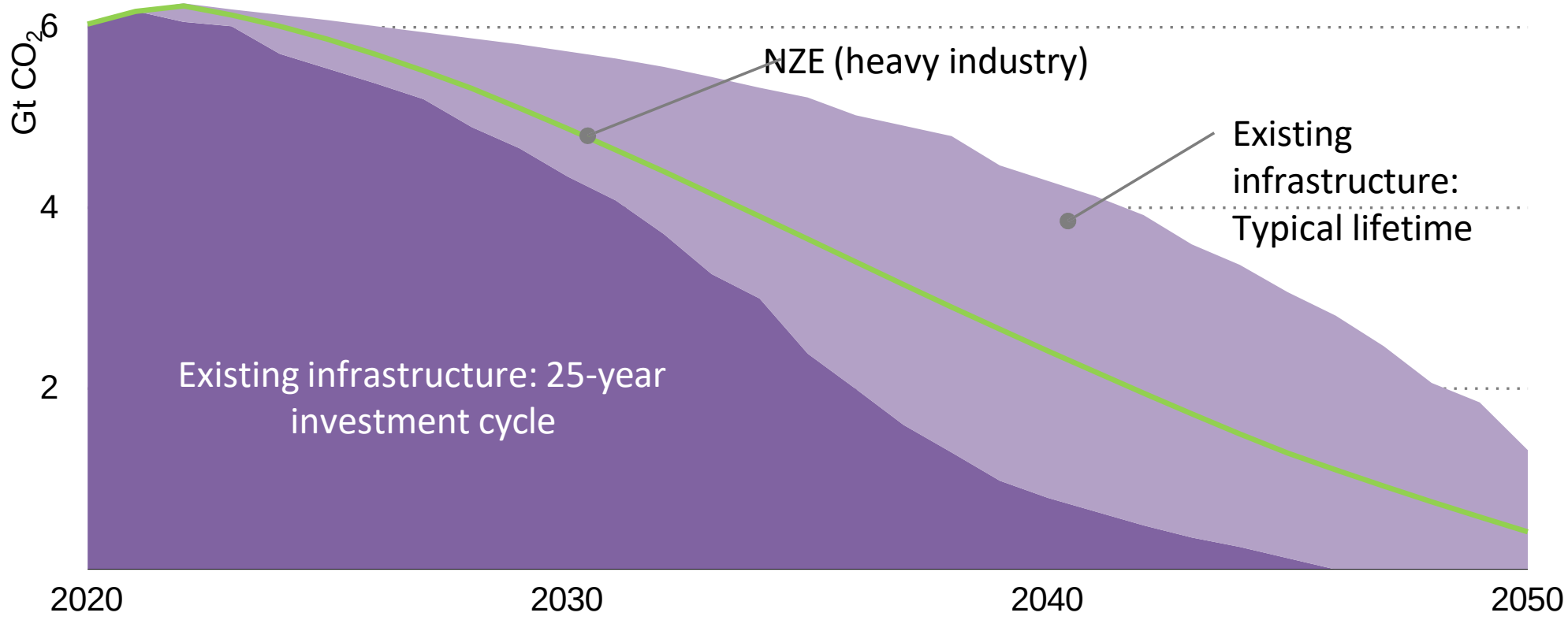
Energy consumption in productive uses by sector and fuel in the SAS



Energy needs in industry and commercial buildings rise substantially by 2030, but the increase is tempered by strong energy efficiency measures

Addressing CO_2 emissions from heavy industry

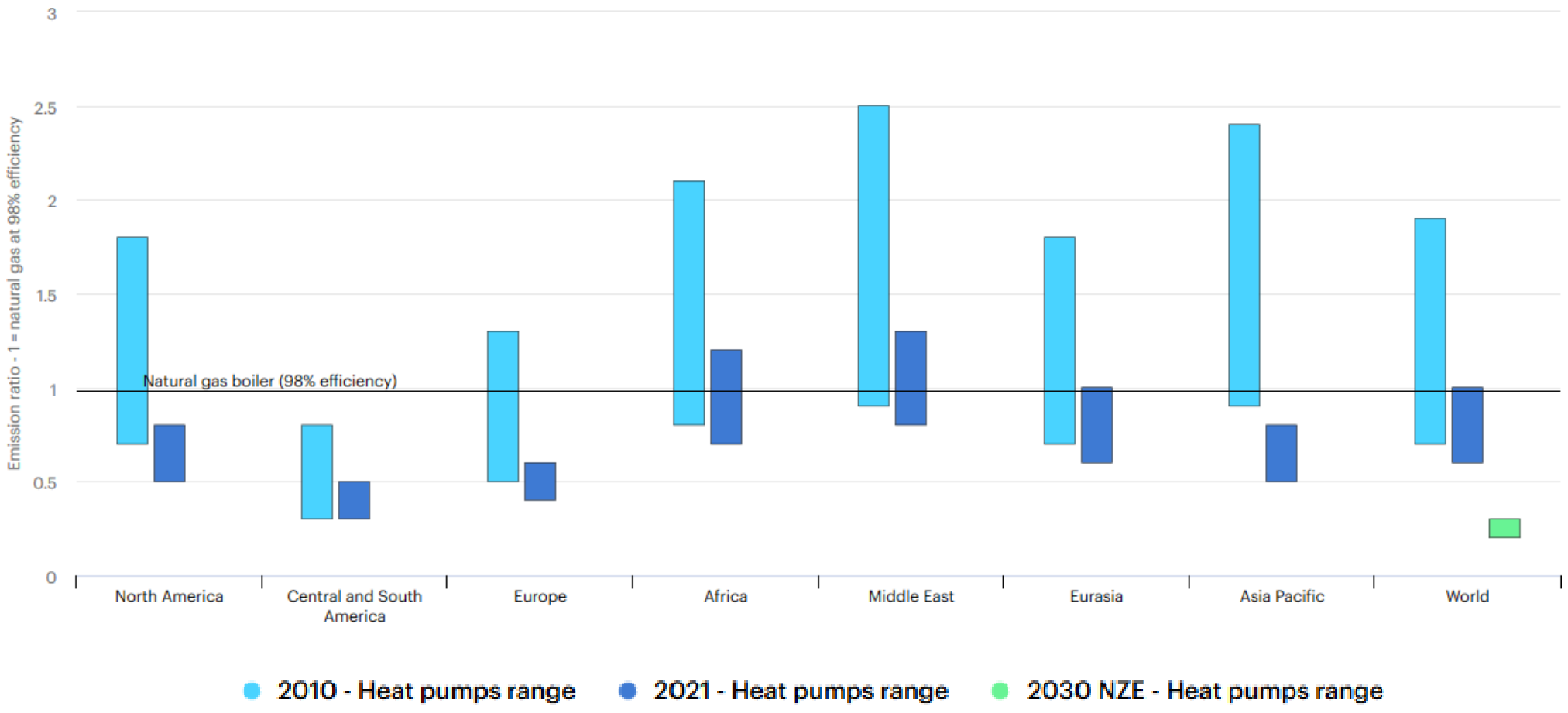
CO_2 emissions from existing heavy industrial assets in the NZE



Intervening at the end of the next 25-year investment cycle could help unlock 60 Gt CO_2, around 40% of projected emissions from existing heavy industry assets

Heat pumps have a key role in decarbonising industry

Relative CO_2 emissions from the operation of air-source heat pumps compared with the most efficient condensing gas boilers by region in the Net Zero Scenario, 2010-2030



Energy Technology Lists can qualify efficient products for financing

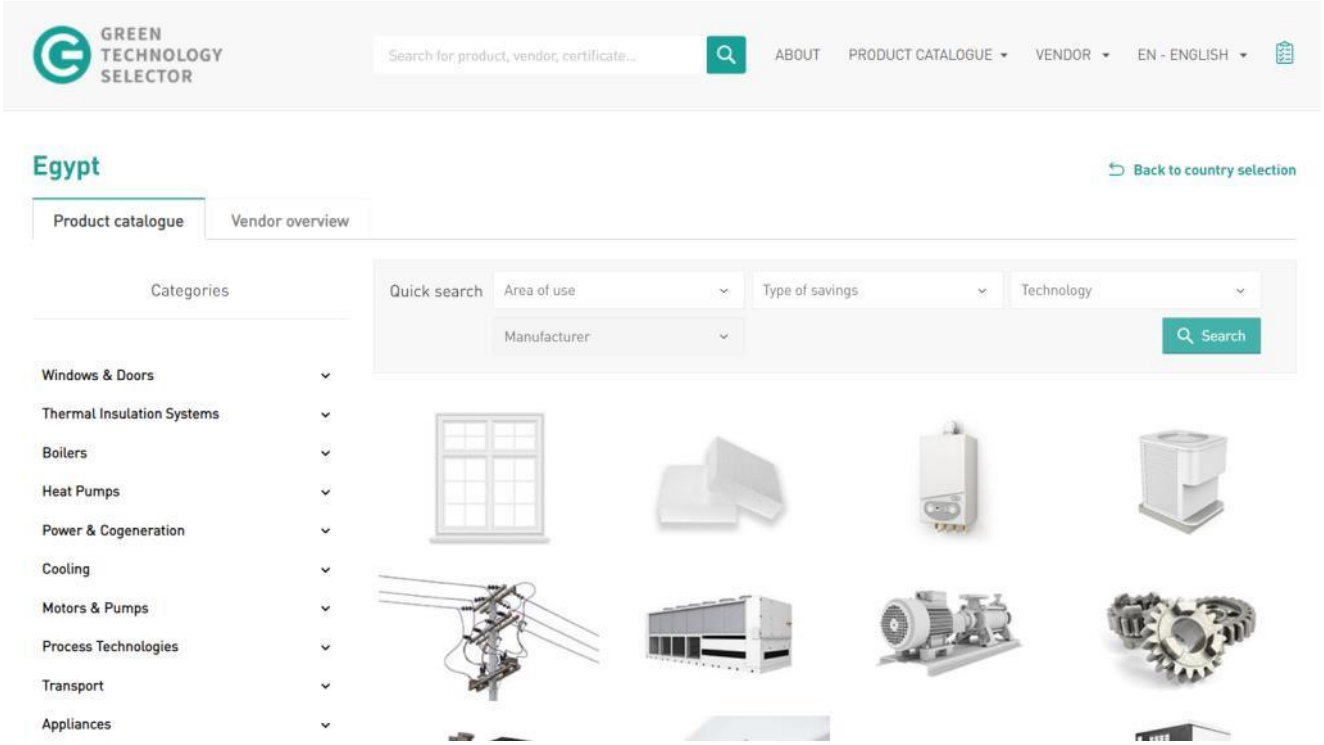
Energy Technology List: list of pre-assessed and pre-approved energy efficient appliances and equipment that can automatically qualify for subsidies or funding

- Procurement tool
- De-risking instrument
- Regular reviews of criteria as well as of technologies and products

EBRD Green Technology Selector:

- 38 countries, including Egypt, Morocco, Tunisia
- Pre-assessed and pre-approved technologies that are automatically eligible for GVC financing through a participating financial institution

- Regular adjustments of baseline and included technologies
- Embedded in **Green Economy Financing Facilities**



IEA Annual Global Conference on Energy Efficiency

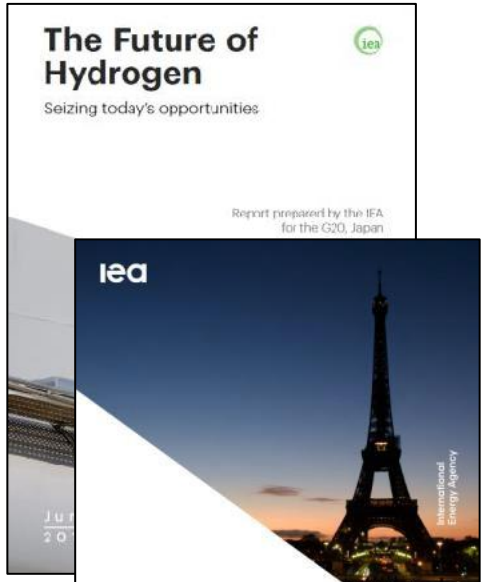
- The 8th Global Conference was held in Versailles, France, in June 2023
    - In the **Versailles Statement**, 45 governments endorsed the goal of doubling the average global rate of energy efficiency improvement by 2030

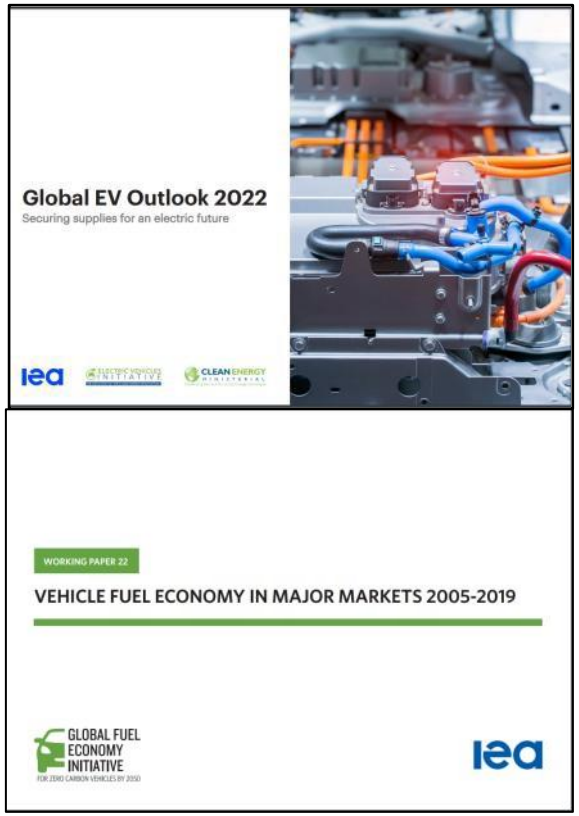
- The Kenyan Minister of Energy and Petroleum Davis Chirchir, announced Kenya's offer to host the 2024 Global Conference

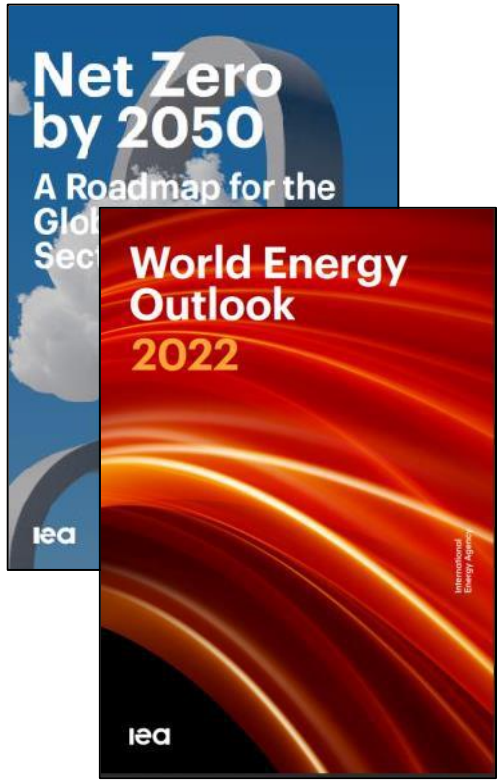
Which financing instruments are used/available for energy efficiency improvements in your country?

Exploring key "spots" in global energy

Recent publications





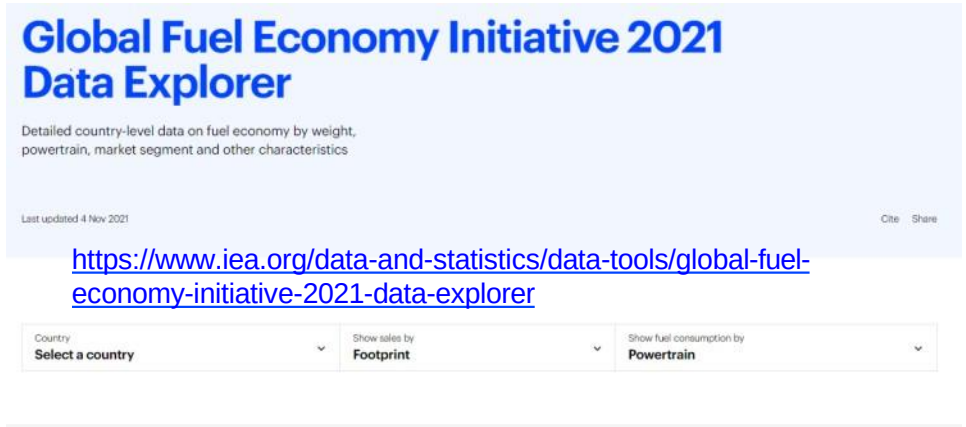


The IEA is shining a light on the major areas of the energy system that need to be combined to ensure a clean transition, with considerable focus on the transport sector.

Energy Efficiency in transport resources

https://www.globalfueleconomy.org/toolkit

https://www.iea.org/data-and-statistics/data-tools/global-ev-policy-explorer



https://www.iea.org/data-and-statistics/data-tools/global-fuel-economy-initiative-2021-data-explorer

www. iea.org/policies

Exploring key "spots" in global energy

Recent publications

The IEA is shining a light on the major areas of the energy system that need to be combined to ensure a clean transition, with considerable focus on the industry sector.

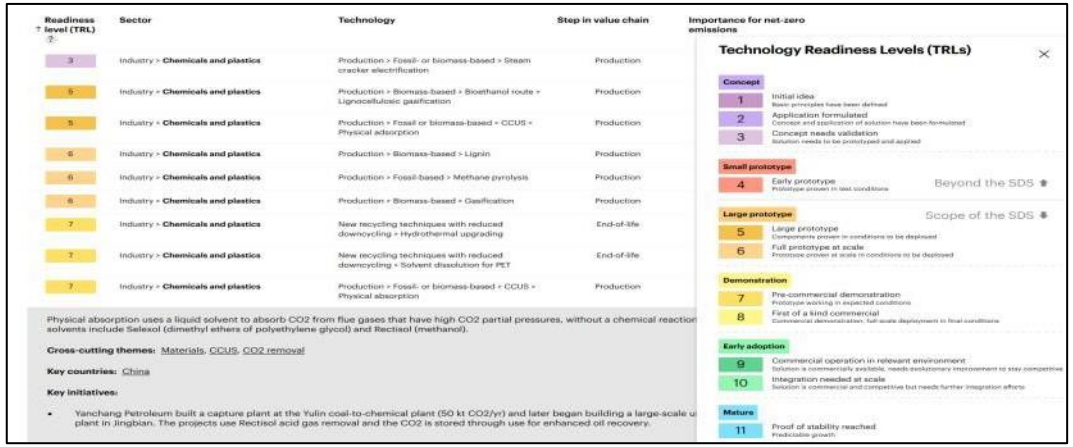
IEA Energy Efficiency in industry resources

Online courses – Energy Efficiency Indicators
- Essentials for Policymakers
- Fundamentals of Statistics

English / Portuguese / Spanish

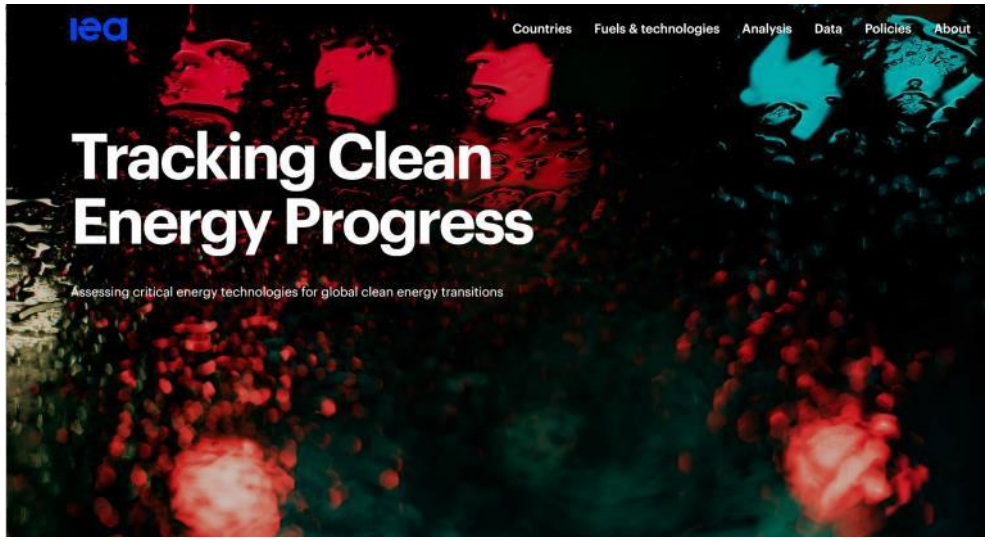
Open to everyone; enrol any time
https://es.edx.iea.org/courses

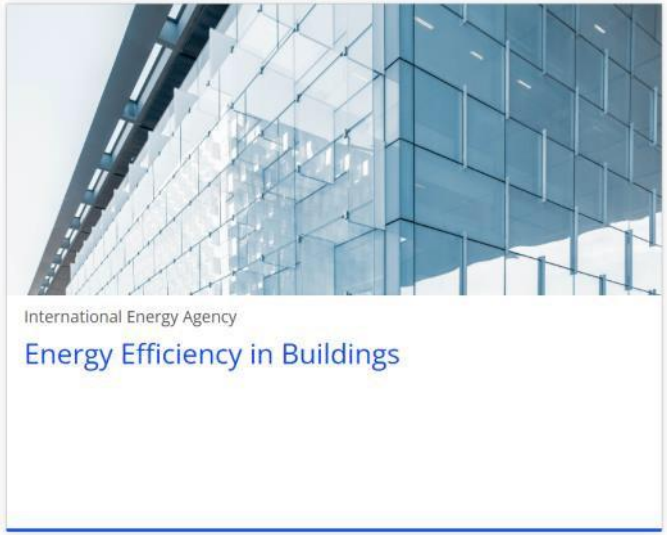
ETP Clean Energy Technology Guide



https://www.iea.org/articles/etp-clean-energy-technology-guide

IEA Energy efficiency in buildings resources





- Tracking Clean Energy Progress – Topics - IEA

| IEA Platform E-learning

Energy Savings Insurance (ESI Model)

11 July 2023

UNEPFI

PRB Energy efficiency capacity building (Africa and MENA) | Part I: New opportunities with energy efficiency for banks.

BASE

ABOUT BASE

WHO WE ARE

BASE is founded in 2001 and is a Swiss not-for-profit foundation and a Specialized Partner of UN Environment.

Our vision is a world where markets are transformed, and sustainable energy and climate change solutions are the norm, not the exception.

WHAT WE DO

We develop innovative, actionable financial strategies and market-driven solutions to unlock investment in SE and to tackle climate change.

Around the world, we work with all markets and segments including those that are challenging and underserved.

ABOUT BASE

ABOUT BASE


COOLING AS A SERVICE
ENERGY SAVINGS INSURANCE EUROPE
REMITRESILIENCE IN THE PACIFIC
ELECTRIC BUSES IN COLOMBIA
ECOFRIDGES IN WEST AFRICA
YOUR VIRTUAL COLD CHAIN ASSISTANT

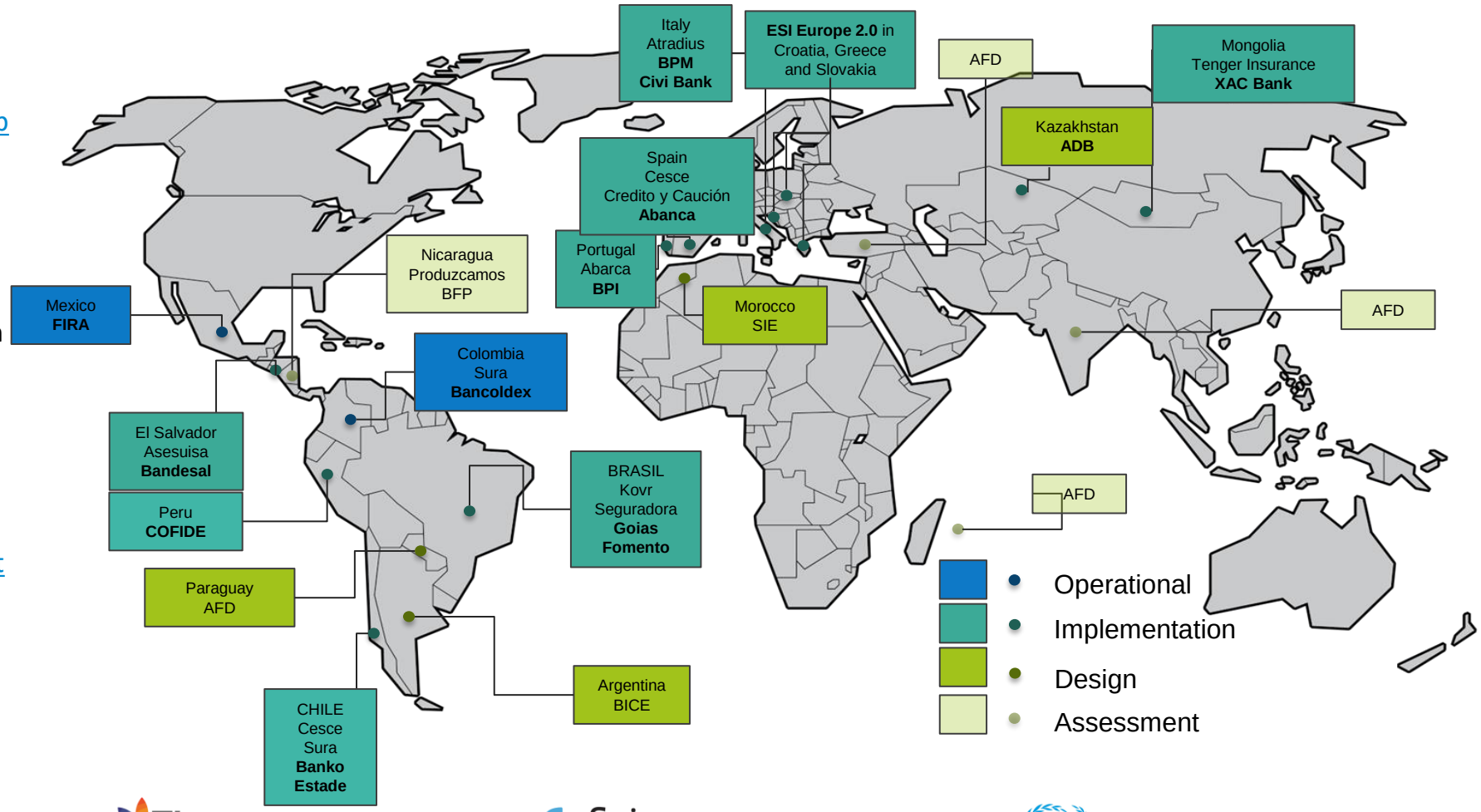
Energy Savings Insurance (ESI) Model

BASE

Geography the ESI Model

The ESI model was recognised by the Global Innovation Lab for Climate Finance as one of the most promising instruments to mobilise private sector investments in energy efficiency.

ESI also features in the G20 Energy Efficiency Investment Toolkit by the UNEP FI and in the Swiss Sustainable Finance compendium of instruments for Financing the Low-Carbon Economy.



Rationale of the ESI model

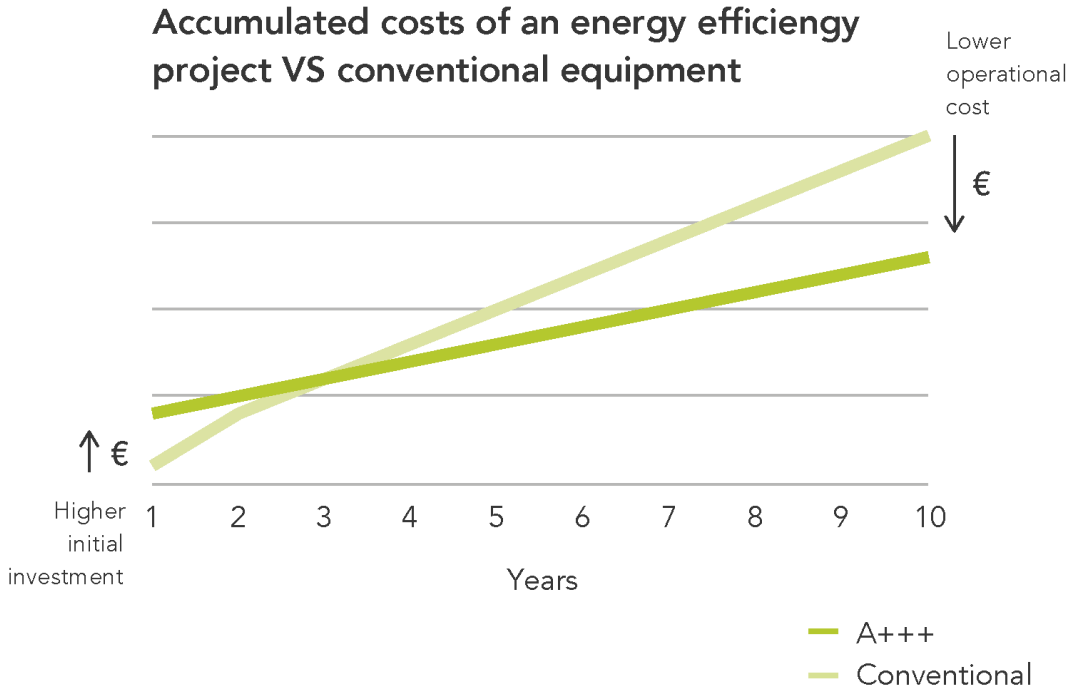
Investments in energy efficient systems…

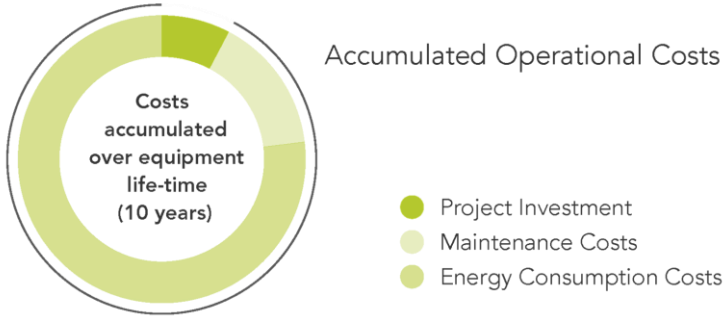
… have **benefits**:

- Reduced operational costs
- Higher productivity and competitiveness
- Improved environmental impact

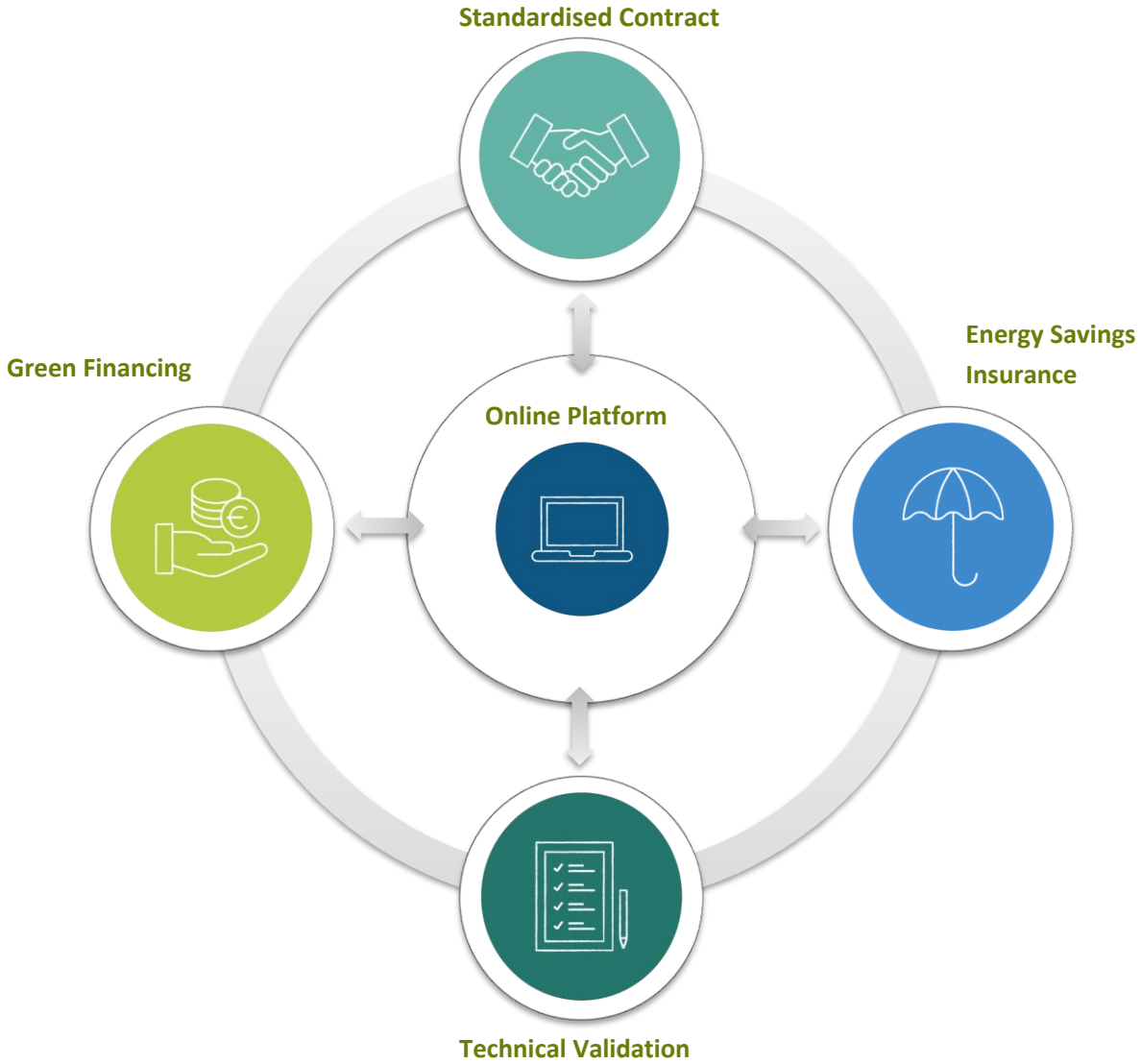
…face **barriers**:

- Higher upfront costs
- Competing investments opportunities
- **Lack of trust** (among actors, in future energy savings





Energy Savings Insurance tools



The **ESI model** is the combination of financial and non-financial elements designed to work together to reduce the perceived risk and build trust in future energy savings and mobilise private investments in Energy Efficiency.

✓Tools already on the market

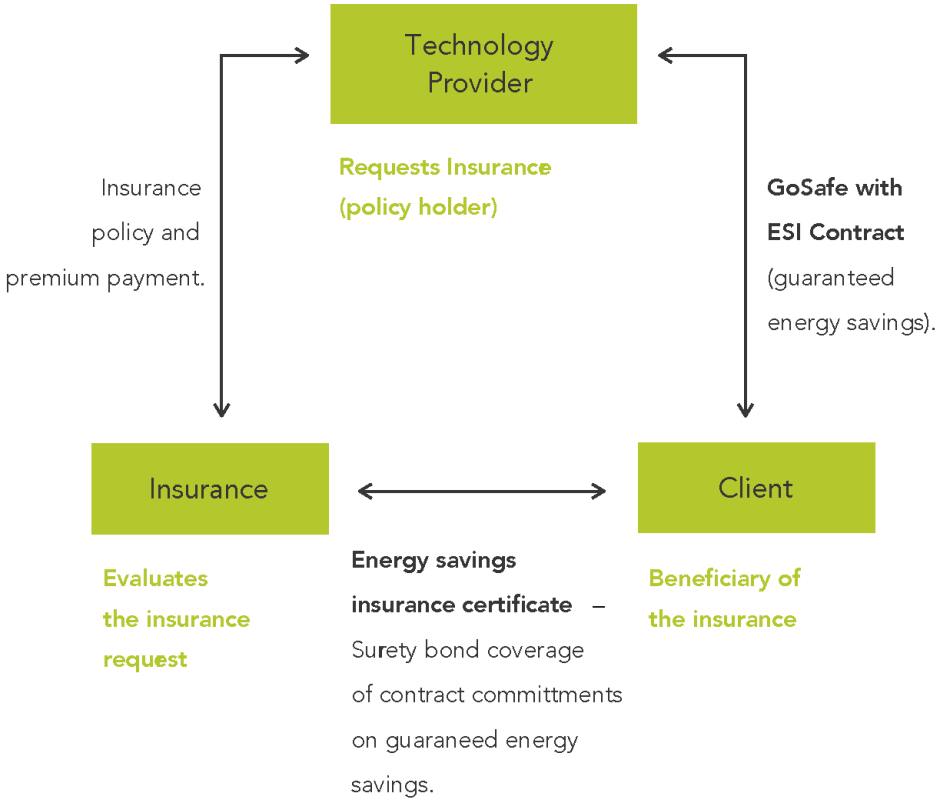
✓Innovation lies in the way they interact with each other

Standardised Contract

GoSafe with ESI Standardised Contract

- ✓ An agreement between technology provider (Contractor) and client with guaranteed energy savings clause.
- ✓ The technology provider commits to the energy savings and is responsible for them in the first place.
- ✓ The use of a standard contract makes it easier to evaluate the contract.

Energy Savings Insurance



A policy to cover clients in the event promised energy savings are not achieved, and the TP cannot fulfil its commitments

The goals are to:

✓ GUARANTEE

Provide a guarantee that reduces the energy efficiency investment risk for clients by insuring TP's savings guarantee commitment.

✓ DE-RISK

Increase the commercial banks' willingness to lend to the clients for these project types given the reduced default risk.

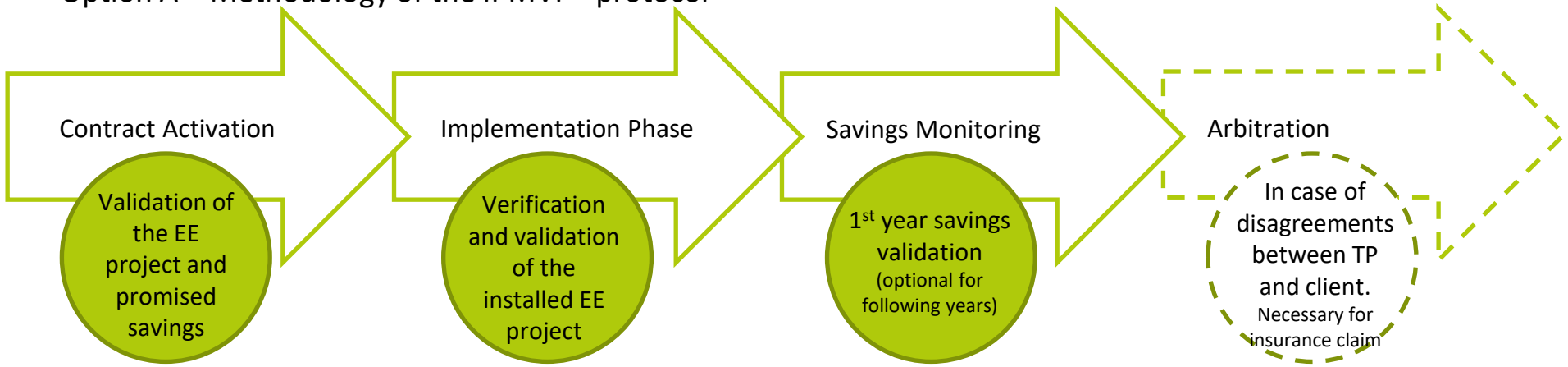
Is a surety bond type of insurance, a contractual agreement among three parties: TP, insurance company and client.

Technical Validation

Builds trust and provides certainty of energy efficiency technical aspects to **clients**, **insurance companies** and **financial institutions**.

Main characteristics are:

- ✓ it is conducted by an independent technical validation entity
- ✓ the technology-based methodology for the evaluation of the projects is based on Option A – Methodology of the IPMVP® protocol



The validation process increases transparency and creates trust that energy savings will be delivered by the project.

Green Financing

- ✓ Client as investor and credit taker for EE project with GoSafe with ESI.
- ✓ Banks mobilise their green credit lines (or create new products) for EE projects using GoSafe with ESI.
- ✓ Reporting Mechanism of the portfolio through the MIS
- ✓ Links existing supporting financial mechanism (e.g. incentives, credit guarantees, etc.).
- ✓ FIs are engaged and trained to understand the functioning and interaction of GoSafe with ESI EE project.

Online platform - MIS

A functional interface will be developed to facilitate the workflow and information access of the different key actors of the energy efficiency project.

The main characteristics are:

✓ SECURE

It is accessed on a login and password, secured area

✓ PROJECT PROCESS MONITORING

It registers information and actions of the project:

- proposal validation
- contract activation
- installation validation
- Annual project performance reports

✓ TAILORED ACCESS

Accessed by TPs, Clients, Validation Entity, Insurance companies and Financial Institutions

✓ DEVELOPED IN BLOCKCHAIN

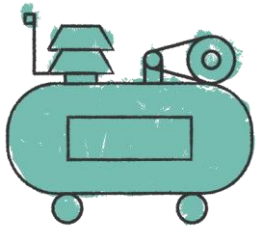
Increased transparency, trust, traceability and reliability of information

Technologies

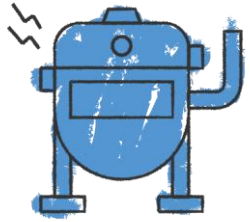
The most common technologies used in Energy Efficiency projects, which opens an interesting new market for the surety bond industry

Lighting

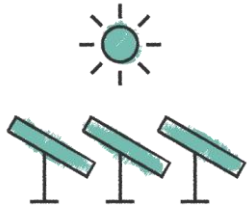
Motors



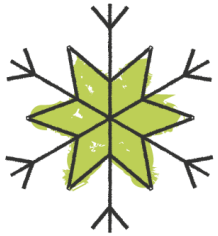
Air Compressors



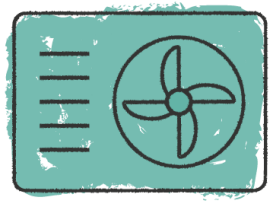
Boilers



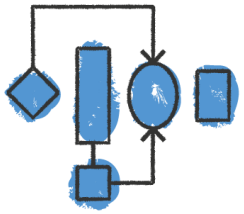
Solar water heaters



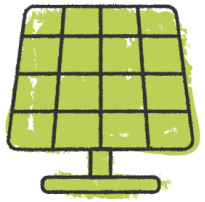
Refrigeration



HVAC



Co-generation



Photovoltaic Panels

Combination of technologies

With **GoSafe with ESI** the financial institutions has an attractive tool to actively support the green economy and monitor the results the projects they finance.

Case study of Mongolia

Morocco

SECTORS
- ✓ Hotels and Service Sector
- ✓ Industrial Sector

MARKET TARGET
- ✓ EUR 30 M$ in investments in EE projects in the coming 5 to 7 years

Timeline
- ✓ 2022 - 2023

Engaged Stakeholders
- ✓ Bank: Bank Populaire
- ✓ Validation Entity: SGS

Scan Me

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Thank you for your attention!

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101033691

How does GoSafe with ESI work (1)?

1. PREPARATION PHASE

An energy efficiency technology provider offers a project with guaranteed energy savings.

2. CONTRACT ACTIVATION

A a third-party validation entity evaluates the project's energy savings.

The insurance company covers the validated energy savings and the contract is activated.

3. IMPLEMENTATION PHASE

The technology provider installs the energy efficient equipment and the validation entity validates it is according to the contract.

How does GoSafe with ESI work (2)?

4. OPERATION PHASE

The operation of the new equipment results in reduced energy costs and improved productivity.

Maintenance services by the technology provider ensures that the equipment is operating optimally.

5. SAVINGS MONITORING

The energy savings are measured and reported by the technology provider via a simple online system where they are checked and can be approved.

6. INSURANCE COVERAGE

In case of disagreements on the savings achieved, the validation entity steps in as an arbiter.

If the savings are not achieved, and the technology provider is not able to pay back, the insurance covers the guaranteed savings.

How do we implement the ESI model

Project activities include:

Conducting a Market Assessment and identify **prioritised sectors and technologies** within the country

Develop the ESI model elements and **engage key market actors** (insurance companies, validation entity and financial institutions)

Deliver **capacity building** and establish **partnerships** with associations

Develop **communication and marketing material** to promote the uptake of ESI model/GoSafe with ESI solution

Build a pipeline of EE projects and **mobilise investments** making use of the the ESI model/GoSafe with ESI solution.

Dissemination of **results and long lasting tools** for further replication of the model in Europe.

ESI market Europe key sectors

Croatia

HOTELS
- ✓ 811 hotels
- ✓ 112 hotels with +40 rooms; 3 and more stars

WOOD INDUSTRY
- ✓ 2,087 business in the wood sector
- ✓ 223 potential SME's

FOOD INDUSTRY
- ✓ 2,535 companies in the food sector
- ✓ Around 300 SME's potential market

MARKET PROJECTIONS
- ✓ 9M€ mobilised investment after project implementation

Greece

HOTELS
- ✓ 9,971 Hotel units
- ✓ 4000 hotels as Potential market:
  - Hotels with 3 star or higher
  - Not new or renovated after 2017

FOOD INDUSTRY
- ✓ 15.118 companies in the food sector
- ✓ 2.654 as Target market in processing subsectors:

MARKET PROJECTIONS
- ✓ 20M€ mobilised investment after project implementation

Slovakia

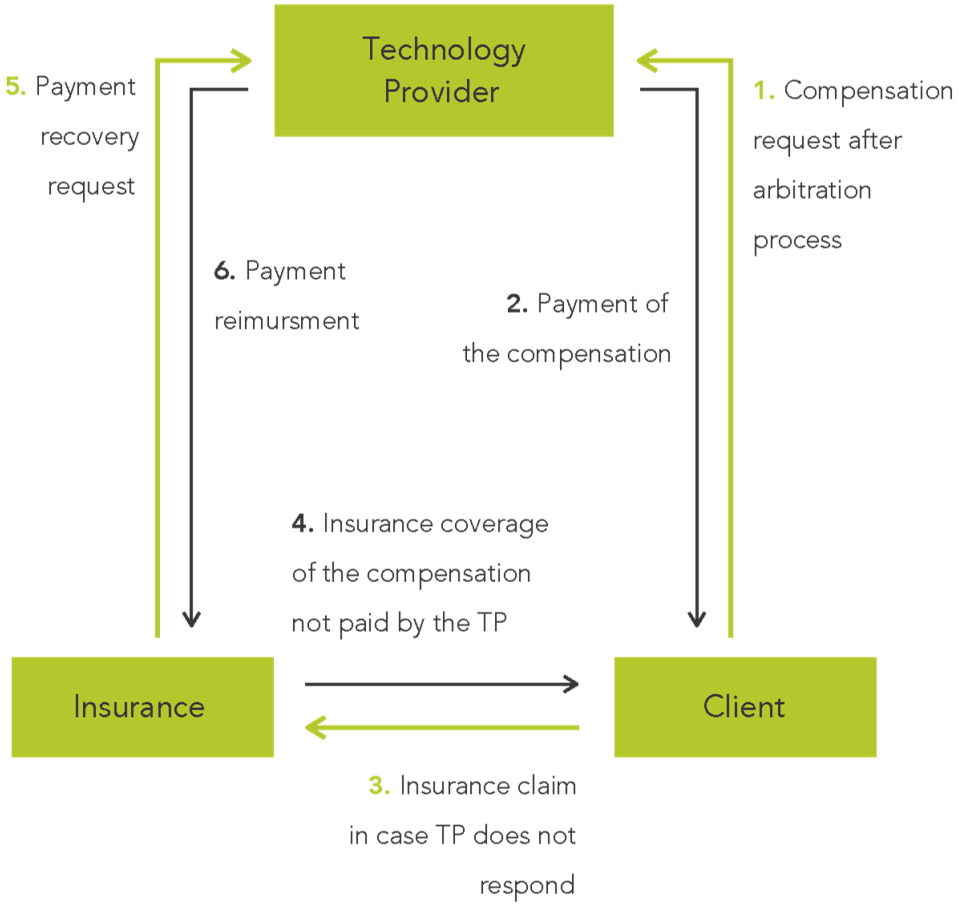
HOTELS
- ✓ 4487 establishments
- ✓ 233 Potential market

MOTOR VEHICLES INDUSTRY
- ✓ 350 supply plants Total market
- ✓ 35 plants estimated potential

MARKET PROJECTIONS
- ✓ 13M€ mobilised investment after project implementation

Energy Savings Insurance: claim operative

- ✓ Is linked to the GoSafe with ESI contract and triggered if specific clauses of the contract are not met.
- ✓ In case of the reported energy savings are not agreed by Client and TP, an arbitration process is initiated.
- ✓ The Validation Entity carries out the arbitration procedure, assessing potential energy savings defaults to be compensated to the Client.



The first step of EE Target setting: Alignment

So energy efficiency is key for AME region…

- **Access to Energy**: Many countries in the region still face challenges in accessing reliable and affordable energy sources. Energy efficiency measures can help bridge the energy access gap by reducing energy demand and making the most out of existing energy resources. By improving energy efficiency, African countries can enhance energy security and provide electricity to more people, especially in remote and underserved areas.
- **Economic Development**: Energy efficiency can spur economic growth and development in the region. By optimizing energy use, industries can reduce production costs, enhance productivity, and improve competitiveness. Energy-efficient technologies and practices can also stimulate job creation and promote the growth of renewable energy sectors, leading to a more diversified and resilient economy.
- **Climate Change Mitigation**: Enhancing energy efficiency helps reduce greenhouse gas emissions, mitigate climate change, and contribute to global climate goals. By adopting energy-efficient technologies, promoting renewable energy, and implementing energy management systems, African and Middle East countries can minimize their carbon footprint and transition towards a low-carbon and sustainable future.
- **Environmental Sustainability**: Energy production and consumption often have significant environmental impacts, including air pollution and habitat destruction. Energy efficiency measures help minimize these negative effects by reducing energy waste and optimizing resource use. This leads to cleaner air, healthier ecosystems, and improved environmental quality, preserving Africa's rich biodiversity and natural heritage.
- **Energy Affordability**: Improving energy efficiency can make energy more affordable for households, businesses, and communities. By reducing energy waste, energy bills can be lowered, alleviating energy poverty and improving the standard of living for many people. Energy-efficient buildings, appliances, and transportation systems can also help individuals and organizations save money on energy costs in the long run.
- **Energy Independence**: Africa has abundant renewable energy resources, including solar, wind, hydro, and geothermal. By embracing energy efficiency, African countries can maximize the utilization of these clean energy sources, reducing reliance on fossil fuels and imported energy. This enhances energy independence, strengthens energy security, and reduces vulnerability to fluctuations in fuel prices and supply disruptions.

…but comes with huge investment needs…

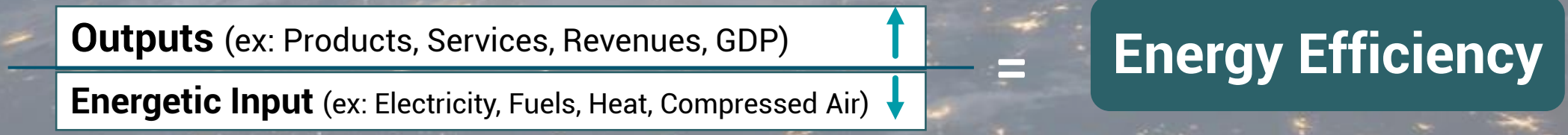
1. International Energy Agency (IEA): According to the IEA's report "Africa Energy Outlook 2019," achieving energy efficiency improvements consistent with the Sustainable Development Scenario (SDS) would require an average annual investment of around $18 billion in energy efficiency measures between 2020 and 2040. This estimate includes investments in both energy end-use sectors (buildings, industry, and transport) and enabling factors (policies, finance, capacity building).
2. African Development Bank (AfDB): The AfDB's report "Tracking SDG 7: The Energy Progress Report 2020" estimates that Africa needs an annual investment of $3.2 billion to meet its energy efficiency targets. This estimate takes into account investments required to improve energy efficiency across multiple sectors, including buildings, industry, and transportation.
3. International Finance Corporation (IFC): In a study titled "Unlocking Energy Efficiency Investments in Sub-Saharan Africa," the IFC estimates that the energy efficiency investment potential in selected African countries could reach $234 billion by 2030. This figure includes investment opportunities in energy-efficient buildings, industry, and municipal infrastructure.

PRB's target setting framework should help your bank to finance those needed investments

- Setting ambitious, but realistic targets
- Establishing new practices, processes, products etc.
- Introducing key performance indicators to measure your progress

Thinking and working around energy efficiency in a strategic way with the PRB framework

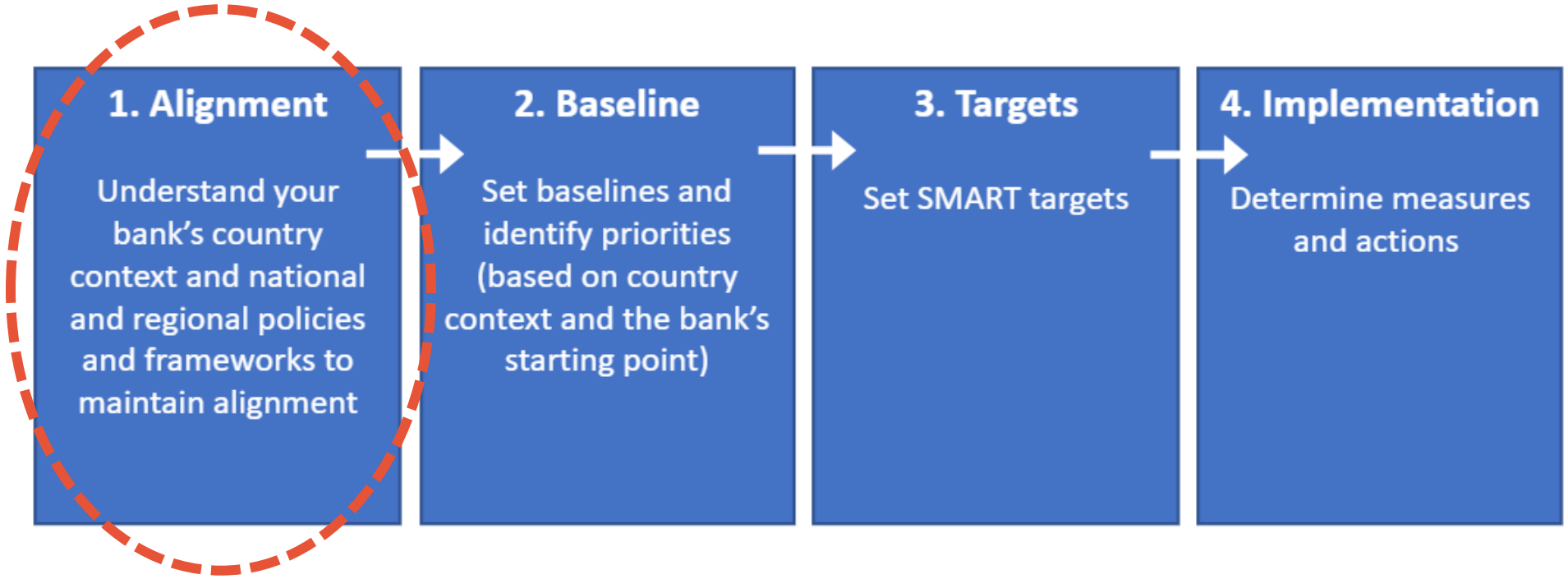
Let’s start with clarifying definitions



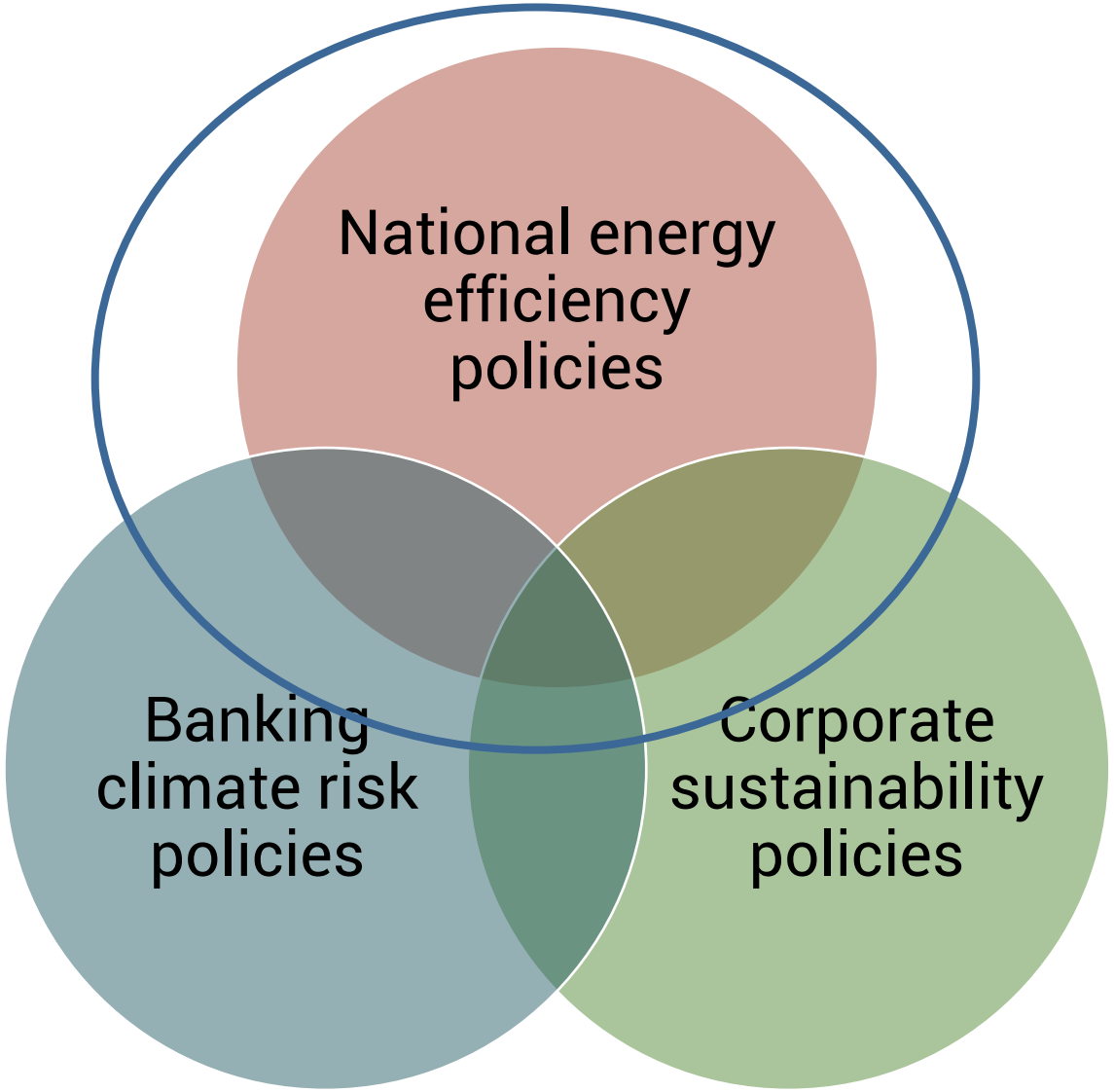
1.Demand-side energy efficiency via the use of efficient equipment or behavioral change on the customer's side lowers energy consumption without compromising consumer comfort or the country's competitiveness.

2.Supply-side energy efficiency seeks to use less energy input and produce the same or more electricity at the generation and distribution segment.

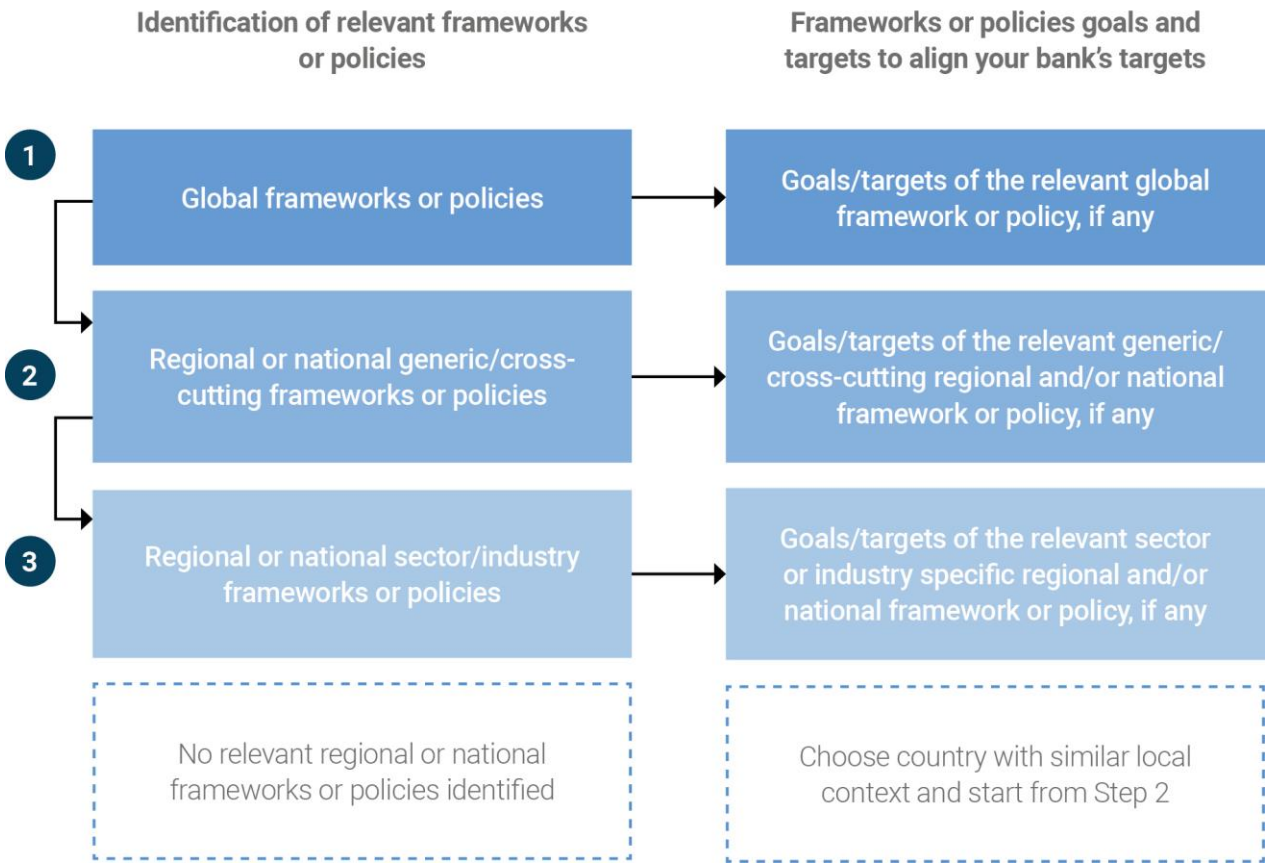
The target setting process (climate or resource efficiency)



Policy environment – what to look for?



Alignment



- IEA NZ2050, SDS scenarios etc.
- The South African economic, reconstruction and recovery plan; South Africa's Low-Emission Development Strategy (SA LEDS) 2050.
- Compulsory Specifications for Energy Efficiency and Labelling of Electrical and Electronic Apparatus

Recommended resource for your context analyis

Policies 265 | Africa | Middle East | Targets, plans and framework legislation | Strategic plans | Minimum energy performance standards | Filter

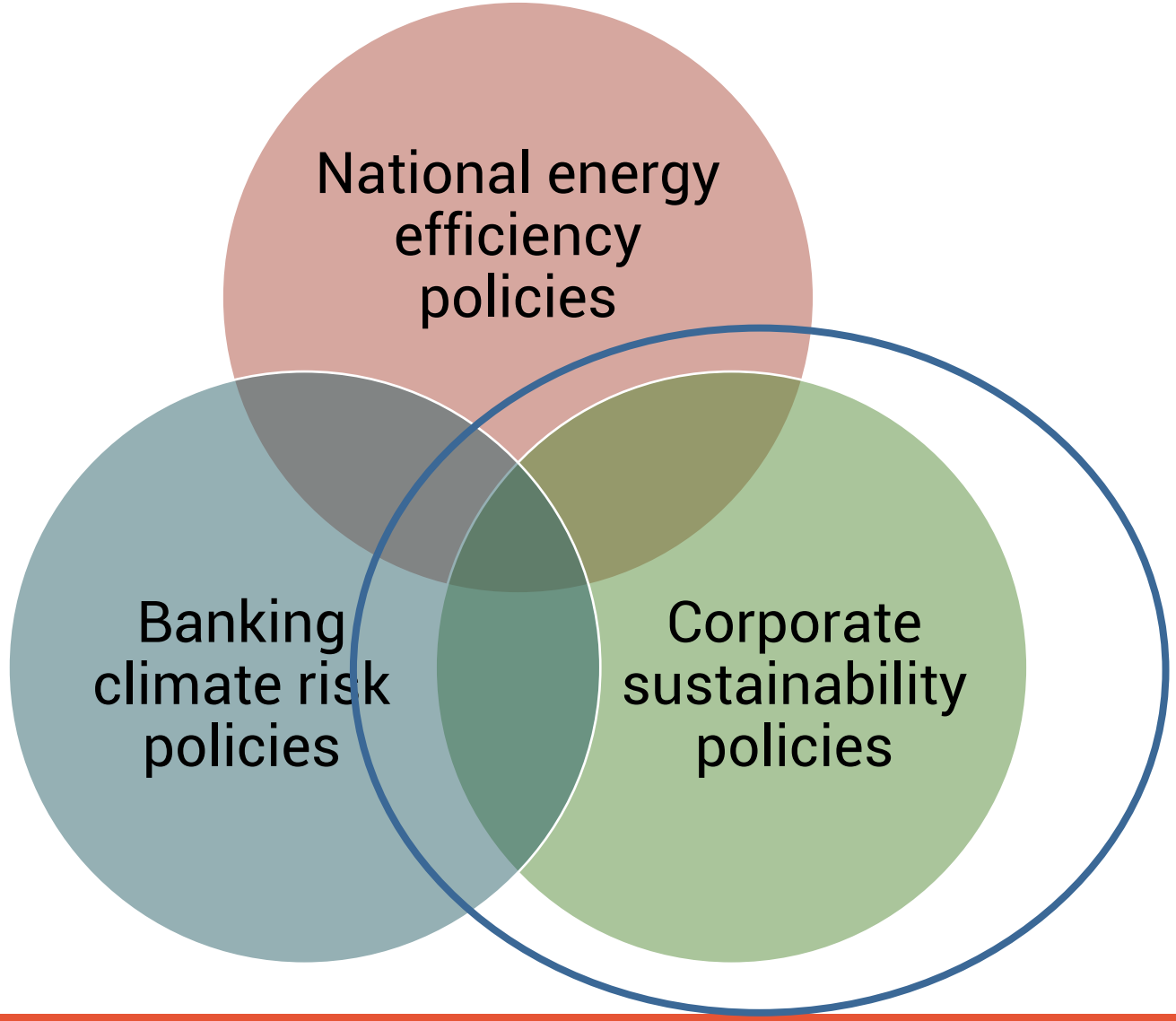
Policy	Country	↑ Year	Status	Jurisdiction
Creation of a High Energy Council	Algeria	2022	In force	National
Dubai Integrated Waste Management Strategy 2021-2041	United Arab Emirates	2022	In force	National
Egypt-Saudi electricity interconnection project	Egypt	2022	Planned	International
Exploration Strategy for the Mining Industry of South Africa	South Africa	2022	In force	National
Hydrogen Leadership Roadmap	United Arab Emirates	2021	In force	National
Kuwait Nationally Determined Contributions 2021	Kuwait	2021	In force	National
MEPS for Air conditioners	Rwanda	2021	In force	National
MEPS for Refrigerators	Rwanda	2021	In force	National
National Hydrogen Strategy	Morocco	2021	In force	National
Nationally Determined Contribution (NDC) to the Paris Agreement: Iraq	Iraq	2021	In force	National
Nationally Determined Contribution (NDC) to the Paris Agreement: Nigeria	Nigeria	2021	In force	National
Nationally Determined Contribution (NDC) to the Paris Agreement: Qatar	Qatar	2021	In force	National
Nigerian Economic Sustainability Plan	Nigeria	2021	In force	National
Oman's Second Nationally Determined Contribution	Oman	2021	In force	National
Qatar Energy's Sustainability Strategy	Qatar	2021	In force	Other

Policies database

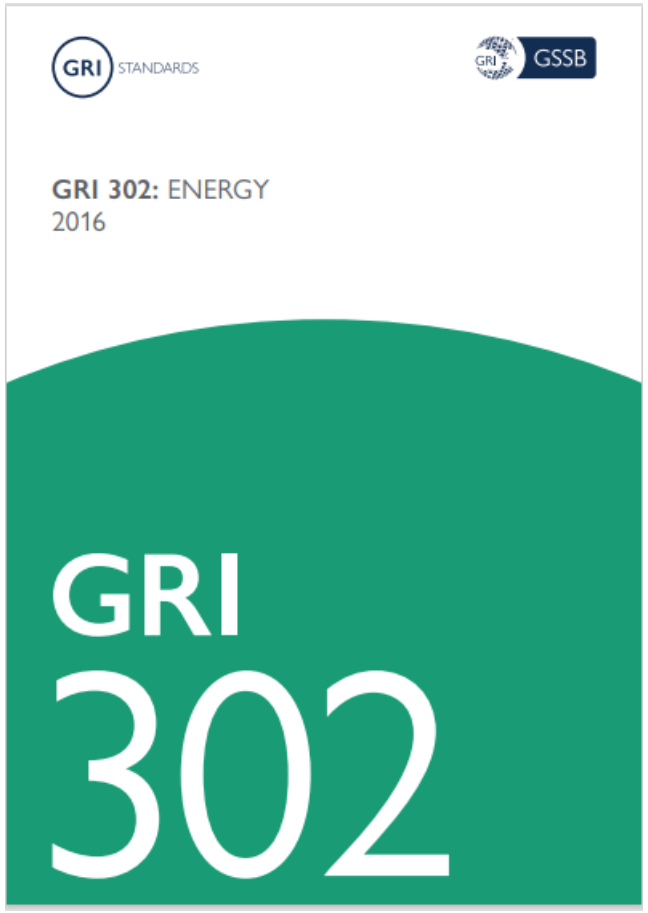
International Energy Agency

www.iea.org/policies

Policy environment – what to look for?



Energy Efficiency in corporate sutainability disclosures



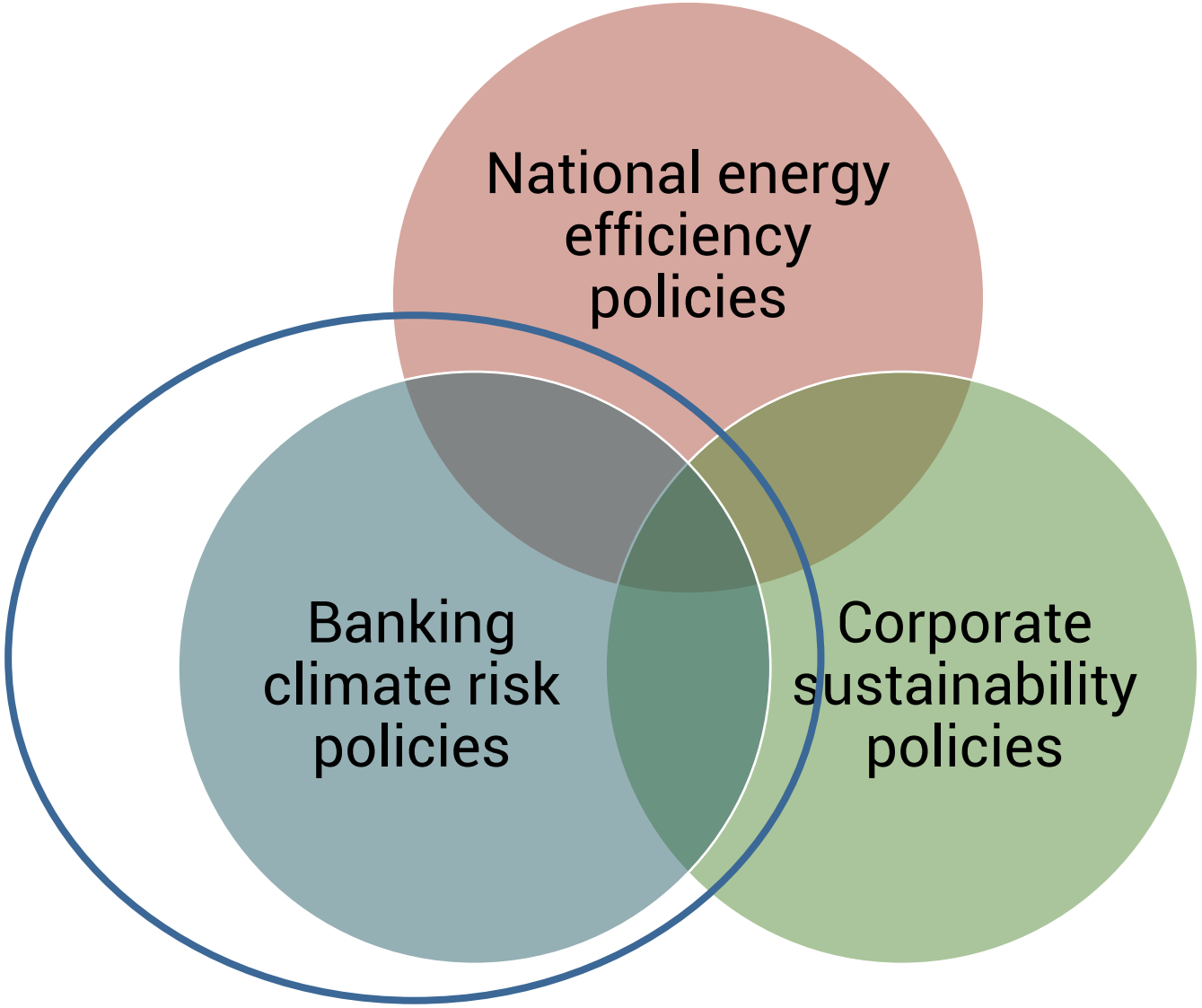
- Disclosure 302-1 Energy consumption within the organization
- Disclosure 302-2 Energy consumption outside of the organization
- Disclosure 302-3 Energy intensity
- Disclosure 302-4 Reduction of energy consumption
- Disclosure 302-5 Reduction in energy requirements of products and services

Energy Efficiency and TCFD reporting

1. **Transition Risks:** Energy efficiency measures can help mitigate risks associated with the transition to a low-carbon economy. Organizations can disclose the potential financial impacts of energy efficiency improvements on their operations, including reduced energy costs, improved resource efficiency, and the adoption of energy-efficient technologies.
2. **Physical Risks:** Energy efficiency can contribute to building resilience against physical climate risks. Organizations can report on how energy efficiency measures, such as efficient building design or cooling systems, are implemented to adapt to changing climatic conditions and reduce vulnerability to extreme weather events.
3. **Opportunities:** Energy efficiency initiatives can create business opportunities and competitive advantages. Organizations can disclose their investments in energy-efficient technologies, projects, or infrastructure that contribute to cost savings, operational efficiency, and market differentiation.
4. **Metrics and Targets:** TCFD reporting encourages organizations to disclose relevant metrics and targets related to climate change. Energy efficiency metrics, such as energy intensity, energy savings, or greenhouse gas emissions reductions resulting from energy efficiency measures, can be included in TCFD disclosures.

TCFD | TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

Policy environment – what to look for?



Banking policies - examples

- A growing number of countries require banks to assess and manage climate risks.
- This often includes assessing energy efficiency of properties (transition risks) etc.
- In some countries the government energy efficiency policies comprise elements targeted at banks (e.g. incentives)
- For example, Morocco's national energy efficiency plan, known as the National Energy Efficiency Strategy (NEES), includes measures to mobilize financing for energy efficiency projects. The country has worked closely with banks and financial institutions to develop innovative financing mechanisms that support energy efficiency initiatives.
- Moroccan banks have introduced various initiatives to promote energy efficiency, such as providing loans and financial products tailored specifically for energy efficiency projects. They also offer incentives, such as lower interest rates or favorable loan terms, for customers who invest in energy-efficient technologies or renewable energy systems.

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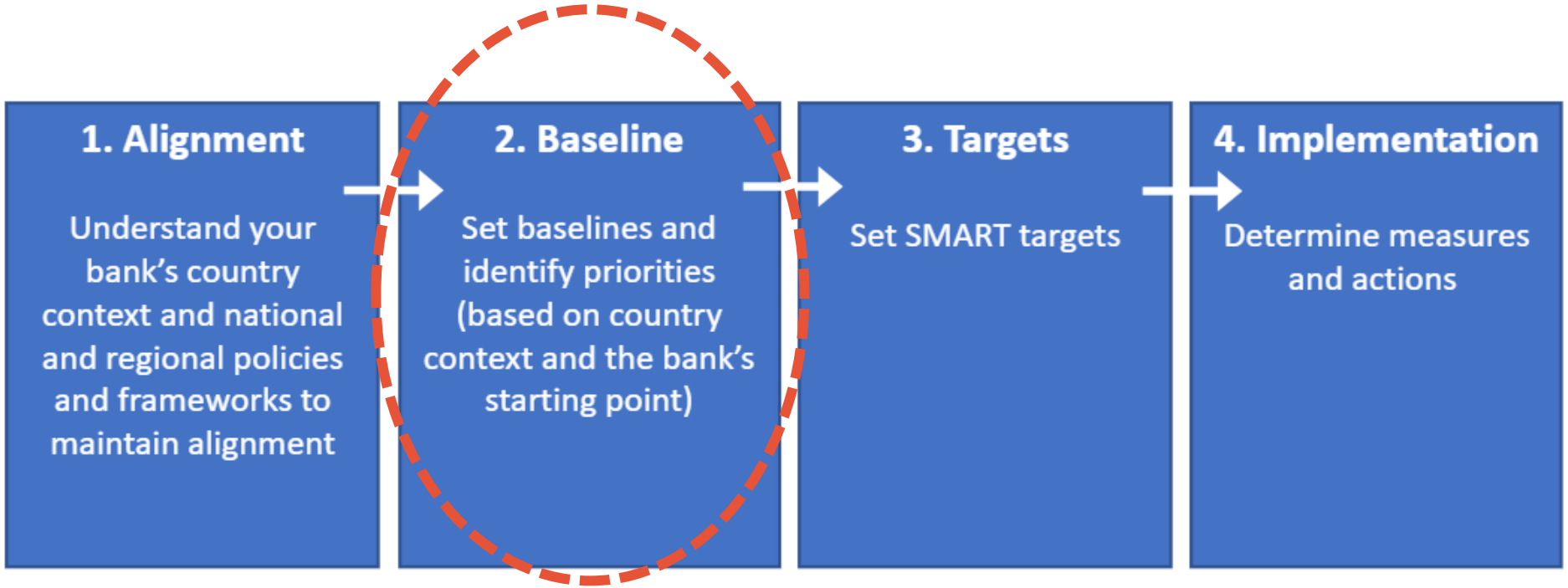
Do you feel confident to do Step 1 (mapping policies and frameworks to align with)?

ⓘ Start presenting to display the poll results on this slide.

The target setting process (climate or resource efficiency)



Measuring your baseline and monitoring your progress

- Your bank needs to select enough relevant **indicators** to measure its current baseline and to monitor and report its progress towards achieving targets.
- The goal is understand how resource efficient and/or climate-friendly your clients' activities are and how those can be improved, through an energy efficiency lense.
- You are encouraged to use a core set of indicators including both practice indicators and impact indicators.

Practice indicators
Portfolio composition and financial flows indicators
Client engagement indicators
Impact indicators

Portfolio screening is key to baseline measurement

Thus, screening your portfolio against a categorisation system will allow your bank to identify:

(i) the activities screened positively, for which your bank should increase its support and exposure,

(ii) the activities screened negatively, for which your bank should engage with its clients and support them to materialise the circular opportunities, and

(iii) the activities screened negatively with no improvement opportunities, for which your bank should decrease exposure and consider exiting the relationship. It will rarely be the case that an activity or a business has no possibility to improve its energy efficiency and circularity (or GHG emissions). Hence, exiting a relationship is thus the solution of last resort.

Screening criteria: an example from Europe – the Taxonomy of sustainable activities

- Some activities are directly linked to EE
  - Manufacture of energy efficiency equipment for buildings
  - Installation, maintenance and repair of energy efficiency equipment
  - Installation and operation of electric heat pumps
- But also embedded in many other activities
  - e.g. Manufacture of low carbon technologies for transport, Renewal of waste water collection and treatment etc., Data processing, hosting and related activities, etc.
- **For most banks, *Construction and real estate activities* will be most relevant**
  - **7.1 Construction of new buildings**
  - **7.2.Renovation of existing buildings**

EU Taxonomy Navigator (europa.eu)

Screening criteria: South African Taxonomy

The Taxonomy recognises two distinct types of substantial contribution applicable across climate change mitigation and climate change adaptation:

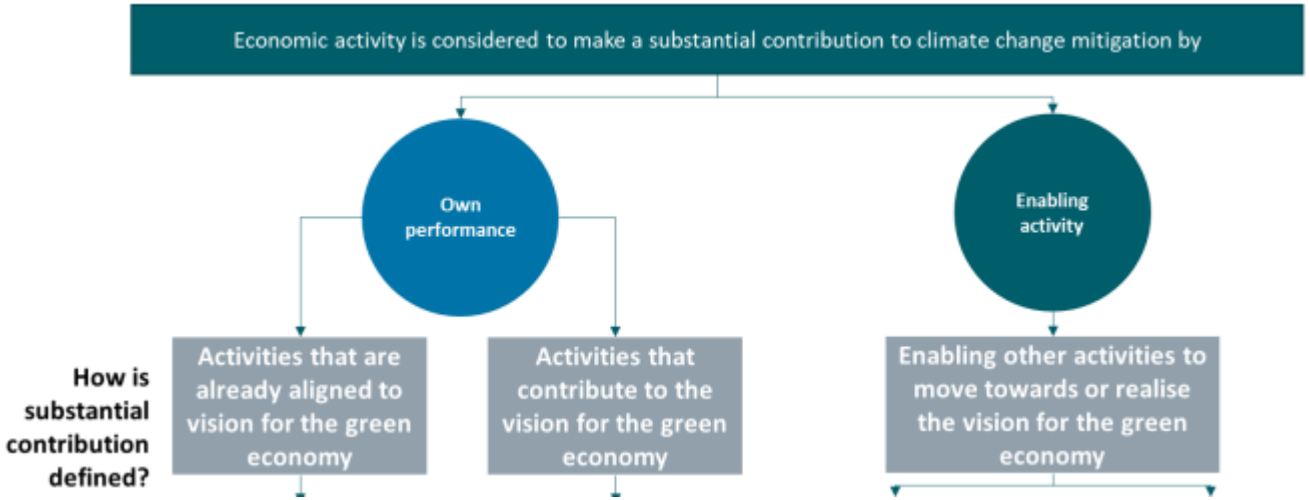
1) Economic activities that make a substantial contribution based on their own performance
2) Enabling activities: economic activities that, by provision of their products or services, enable a substantial contribution to be made in other activities

EE is a key component of the substantial contribution to climate change mitigation criteria:

a) Generating (…) renewable energy
b) Improving energy efficiency except for power generation activities

(…)

i) Enabling any of the above



Source: South African Taxonomy

Screening criteria: South African Taxonomy

7.2.1 Manufacture of low carbon and resource efficiency technologies
7.7.2 Building renovation and major refurbishment

7.2.2 Manufacture of Cement
7.2.6 Manufacture of other inorganic basic chemicals
7.4.1 Water collection, storage, distribution treatment and supply
7.6.1 Data processing, hosting and related activities

With minimized emissions through EE

3. Manufacture of the following products (with thresholds where appropriate) for energy efficient equipment for buildings and their key components is eligible:

- Installation of Building Management Systems (BMS)
- High efficiency windows (U-value better than 0.7 W/m2K)
- High efficiency doors (U-value better than 1.2 W/m2K)
- Insulation products with low thermal conductivity (lambda lower or equal to 0.045 W/mK), external cladding with U-value at or lower than 0.5 W/m2K and roofing systems with U-value at or lower than 0.3 W/m2K)
- Hot water fittings (e.g. taps, showers) that are rated in the top class of the Water Efficiency Labelling and Standards (WELS) scheme.
- Household appliances (e.g. washing machines, dishwashers) rated in the top available class according to South African Energy Efficiency Labelling[28]
- High efficiency lighting appliances rated in the highest energy efficiency class that is in the energy efficiency label (or higher classes) according to South African Energy Efficiency Labelling
- Presence and daylight controls for lighting systems
- Highly efficient space heating and domestic hot water systems rated in the highest energy efficiency class significantly populated in the energy efficiency label (or higher classes) according to South African Energy Efficiency Labelling
- Highly efficient cooling and ventilation systems rated in the highest energy efficiency class significantly populated in the energy efficiency label or higher classes according to South African Energy Efficiency Labelling
- Heat pumps compliant with the criteria for heat pumps given in the energy section of the taxonomy
- Façade and roofing elements with a solar shading or solar control function, including those that support the growing of vegetation
- Energy-efficient building automation and control systems for commercial buildings.
- Zoned thermostats and devices for the smart monitoring of the main electricity loads for residential buildings, and sensoring equipment, e.g. motion control.

Source: ASEAN Taxonomy

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Do you think you would be able to set up a screening criteria for your bank?

ⓘ Start presenting to display the poll results on this slide.

Baseline measurement for resource efficiency target setting - indicators

UN environment programme | finance initiative
Principles for Responsible Banking

Practice baseline

Portfolio composition and financial flows

Percentage of portfolio that meets a set of energy efficiency (circularity) criteria (e.g. green mortgages, defined based on a taxonomy)

Example: 2% of our current mortgages are energy efficient

Client engagement

Number/percentage of clients engaged to collect data (energy consumption, EPC ratings etc.) and identify energy efficiency (circular) opportunities

Example: we engage on avarage 0 clients/month about energy efficiency opportunites

Impact baseline

Circularity impact

In addition to energy usage, use of primary raw material in the construction of the buildings / water usage, waste recycling, etc. in the existing building stock (use phase) etc.

Example: houses financed by our loans use on avarage 70 m3 water/year

Environmental impact

Energy consumption / net revenue
Energy consumption / balance sheet total
Energy consumption / unit of production
Real estate assets by energy efficiency classes
Real estate energy consumption / m2

Example: our sample of SME clients consume electricity of 0,075 kWh/dollar net revenue

+Renewable energy installed capacity

Social impact

Energy poverty related indicators

Example: 10% of our current mortgage clients can be considered energy poor

Exemplary baselines

See later slides about target setting explaining out links to renewable energy (mandatory), circularity (optonal) and social (optional) targets

Briefly about energy poverty

A considerable share of the population today both in Sub-Saharan Africa and MENA still has no access to electricity, and relies on polluting and unhealthy cooking fuels and technologies.

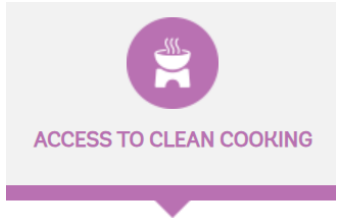
No single definition for energy poverty, but the four common primary indicators include:

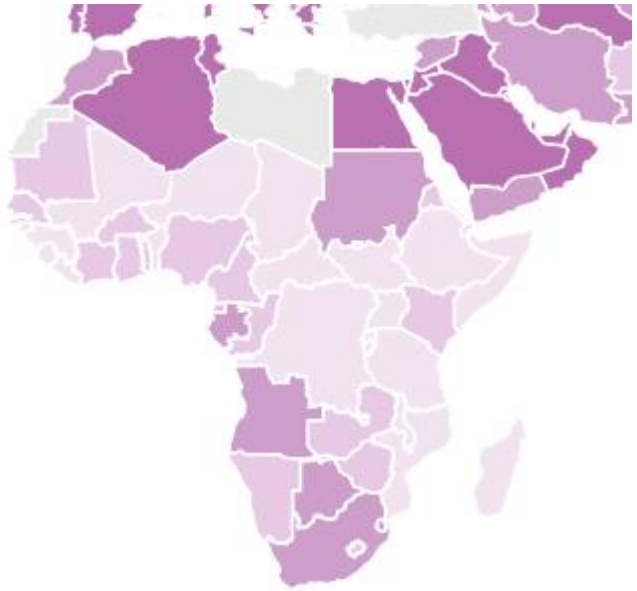
1) Arrears on utility bills;

2) Low absolute energy expenditure;

3) High share of energy expenditure in income;

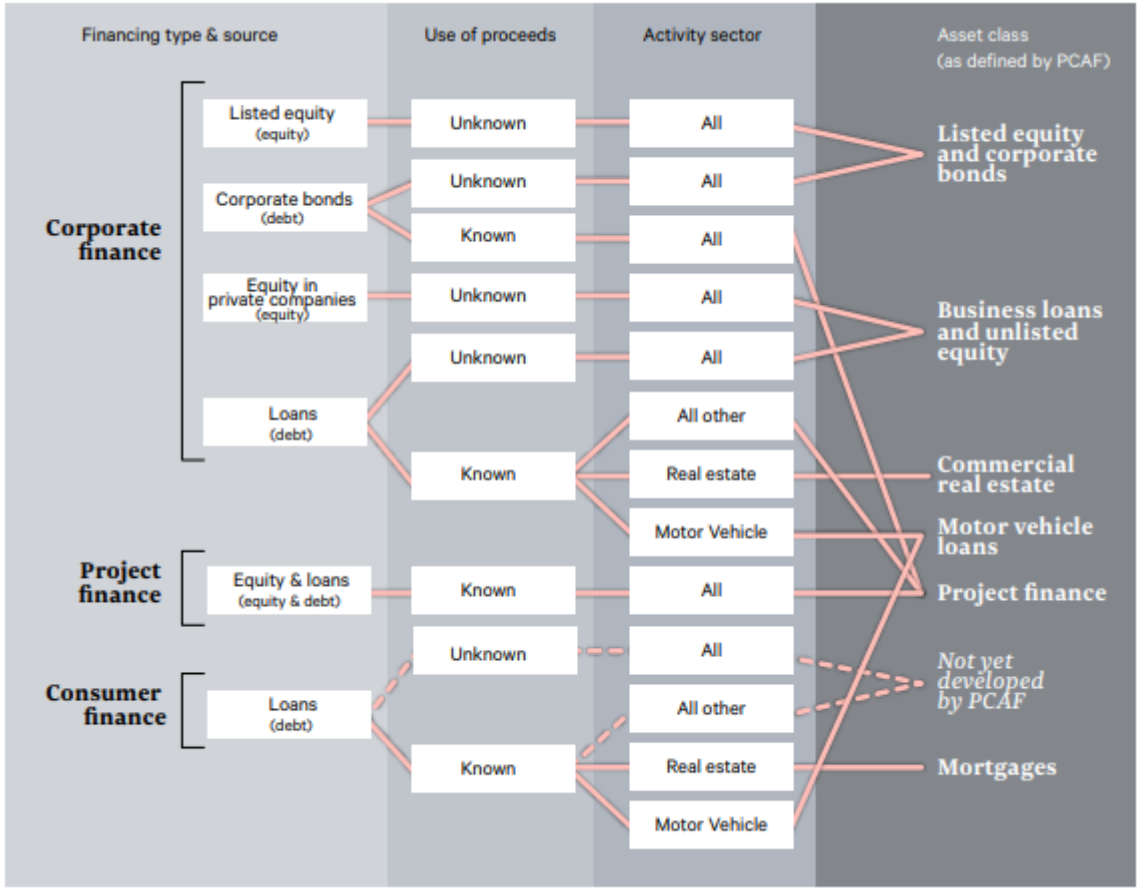
4) Inability to keep home adequately warm/cool





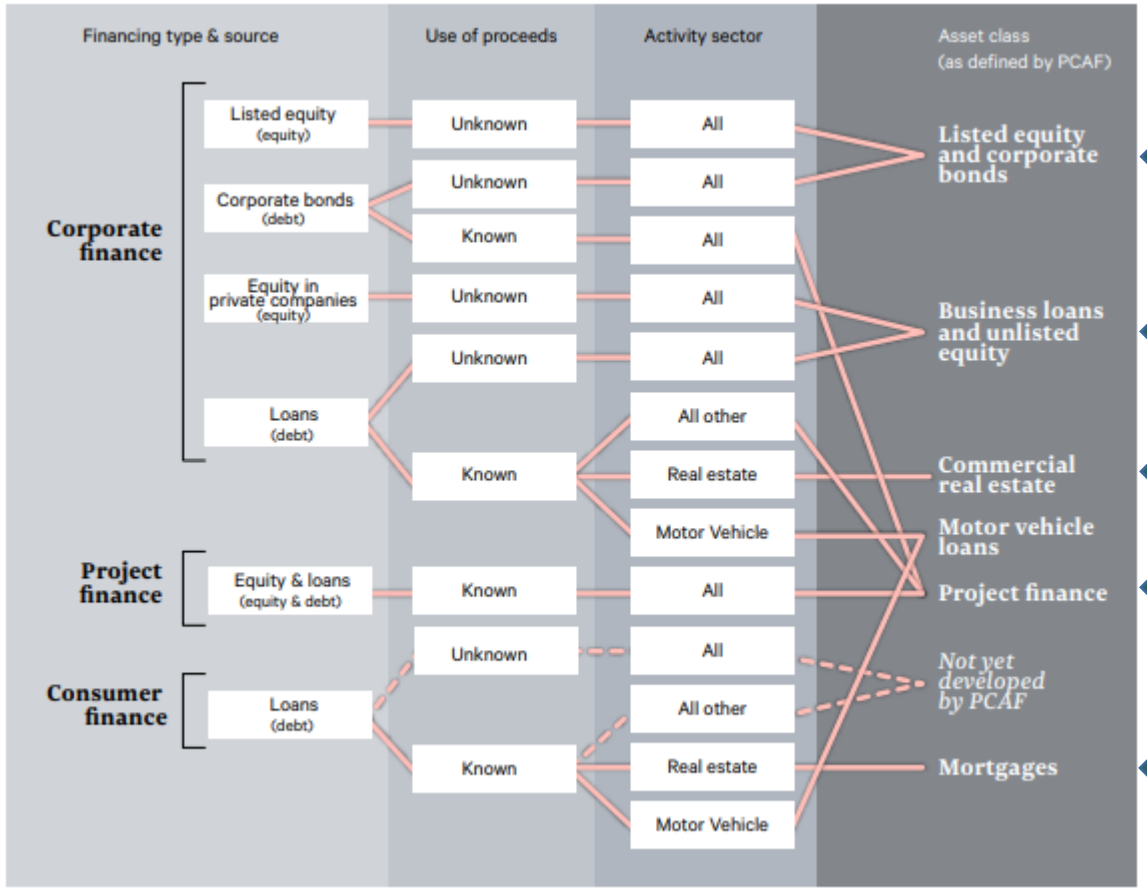
See further insights on energy poverty here:

Measuring your baseline for climate target setting – financed emissions and EE



Please refer to PCAF's website for detailed guidance on GHG accounting. Our workshop just flags the most important links between EE and financed emission calculations.

Measuring your baseline for climate target setting – financed emissions and EE



In some cases the company's energy consumption can be used as a proxy to estimate emissions

Emissions are mainly calculated based on energy consumption

EE project loans: calculation of avoided emissions are allowed by the Standard

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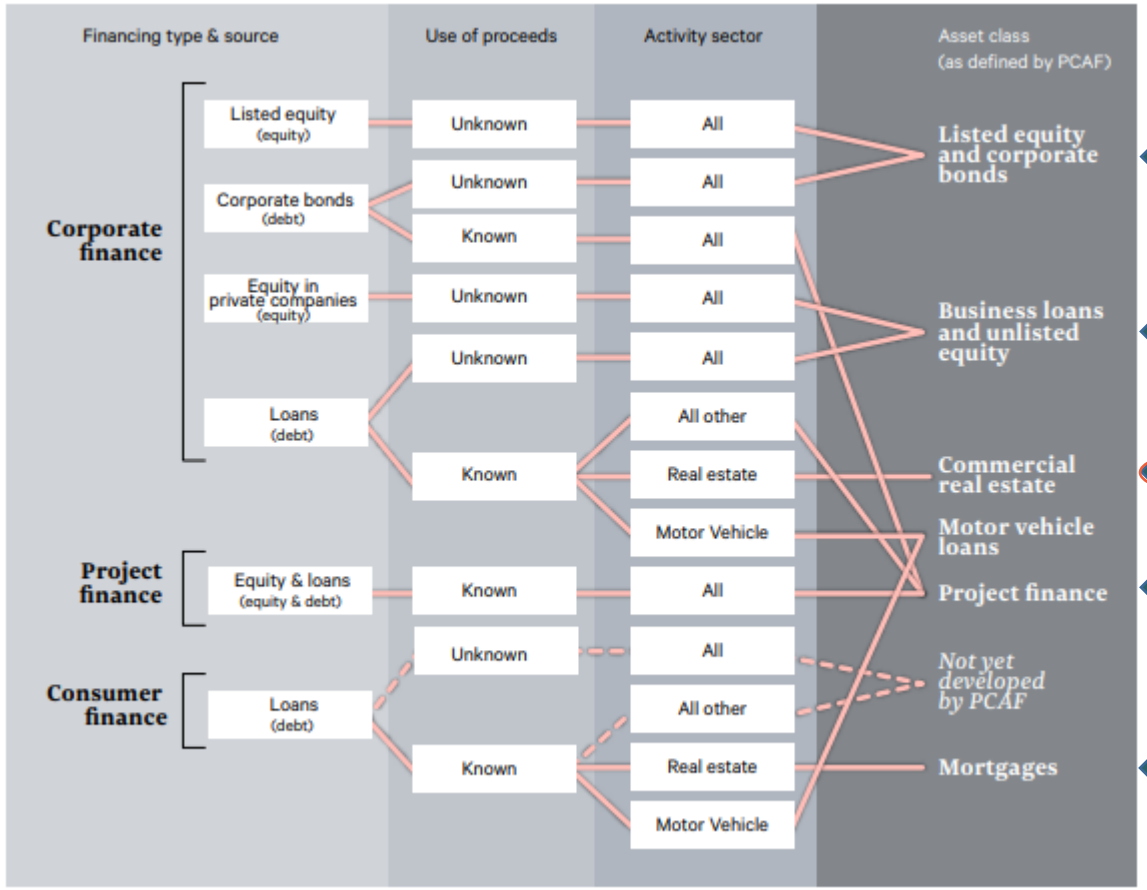
Measuring your baseline for climate target setting – financed emissions and EE



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EE project loans: calculation of avoided emissions are allowed by the Standard

Emissions are mainly calculated based on energy consumption

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Measuring your baseline for climate target setting – financed emissions and EE

PCAF's Data quality score table for Commercial Real Estate

(score 1 = highest data quality; score 5 = lowest data quality)

Data Quality	Options to estimate the financed emissions		When to use each option
Score 1	Option 1: Actual building emissions	1a	Primary data on **actual building energy consumption** (i.e., metered data) is available. Emissions are calculated using actual building energy consumption and **supplier-specific emission factors**[129] specific to the respective energy source.
Score 2		1b	Primary data on **actual building energy consumption** (i.e., metered data) is available. Emissions are calculated using actual building energy consumption and **average emission factors** specific to the respective energy source.
Score 3	Option 2: Estimated building emissions based on floor area	2a	**Estimated building energy consumption per floor area based on official building energy labels AND the floor area** are available. Emissions are calculated using estimated building energy consumption and **average emission factors** specific to the respective energy source.
Score 4		2b	**Estimated building energy consumption per floor area based on building type and location-specific statistical data AND the floor area** are available. Emissions are calculated using estimated building energy consumption and **average emission factors** specific to the respective energy source.
Score 5	Option 3: Estimated building emissions based on number of buildings	3	**Estimated building energy consumption per building based on building type and location-specific statistical data AND the number of buildings** are available. Emissions are calculated using estimated building energy consumption and **average emission factors** specific to the respective energy source.

PCAF's Data quality score table for mortgages

Data Quality	Options to estimate the financed emissions		When to use each option
Score 1	Option 1: Actual building emissions	1a	Primary data on **actual building energy consumption** (i.e., metered data) is available. Emissions are calculated using actual building energy consumption and **supplier-specific emission factors**[136] specific to the respective energy source.
Score 2		1b	Primary data on **actual building energy consumption** (i.e., metered data) is available. Emissions are calculated using actual building energy consumption and **average emission factors** specific to the respective energy source.
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Score 5	Option 3: Estimated building emissions based on number of buildings	3	**Estimated building energy consumption per building based on building type and location-specific statistical data AND the number of buildings** are available. Emissions are calculated using estimated building energy consumption and **average emission factors** specific to the respective energy source.

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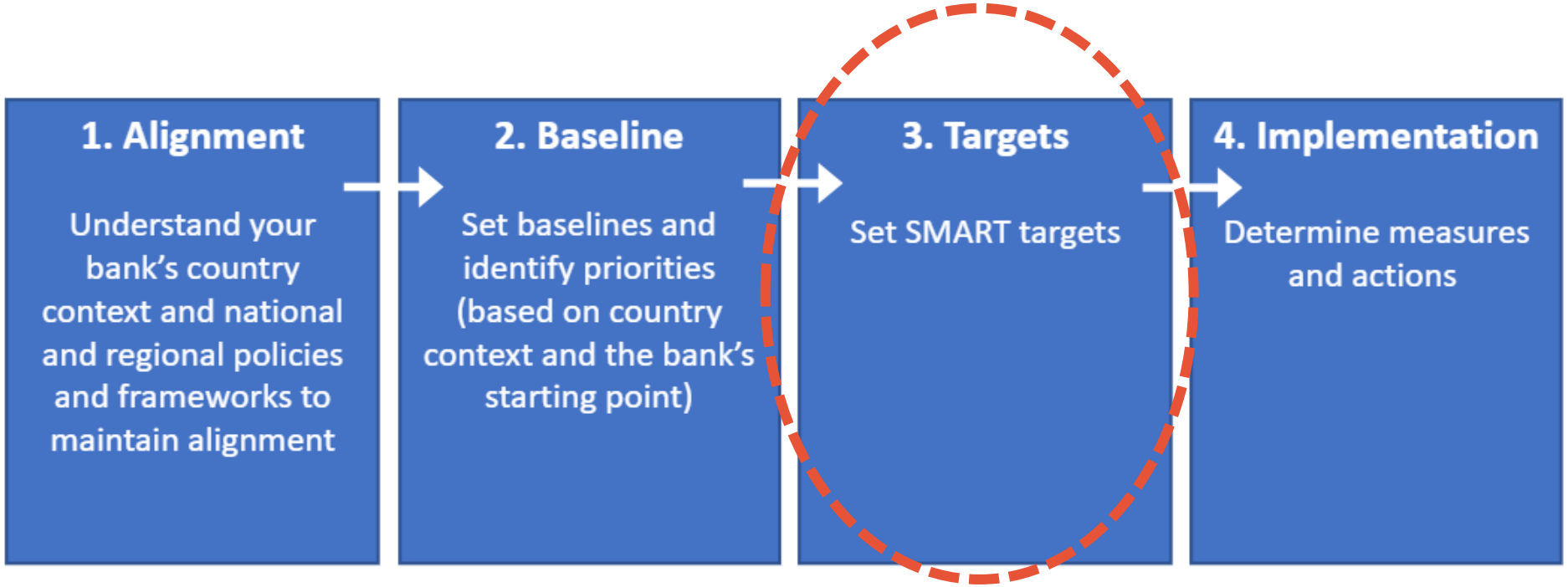
The target setting process (climate or resource efficiency)



Target setting – climate focus

- Your bank should ultimately set impact targets, i.e. targets to increase positive impact and decrease negative impact.
- If your key impact area is **climate change**, your impact targets will be financed GHG emission targets, and energy efficiency will be a key driver

Climate Change

1 Understand the landscape

Energy production / consumption is a huge source of GHG emissions in many sectors

2 Measure & disclose financed emissions

In certain asset classes energy consumption is the main proxy for the calculation of financed emissions

3 Set robust, science-based targets

Energy efficiency is a key driver of Paris Aligned decarbonization scenarios. In some sectors banks' climate targets will be based on EE targets.

4 Implement the targets

In line with your targets, implementation will in many sectors be centered around offering your clients EE advice and investment finance.

Target setting – climate – theoretic example

- Residential mortgages – impact target as GHG emissions:

Baseline (2022)	Intermediate target (2028)	Long term target (2050)
12.500 tCO2e	9700	1300

- CRE loans – impact target as GHG emissions:

Baseline (2022)	Intermediate target (2028)	Long term target (2050)
61.000 tCO2e	40.000	2560

Target setting – climate – theoretic example

Impact targets

- Residential mortgages – impact target as GHG emissions:

Baseline (2022)	Intermediate target (2028)	Long term target (2050)
12.500 tCO2e	9700	1300

- CRE loans – impact target as GHG emissions:

Baseline (2022)	Intermediate target (2028)	Long term target (2050)
61.000 tCO2e	40.000	2560

Practice targets

Portfolio composition and financial flows

By **2026,** ensure that at least 30% of new mortgages meet the local green taxonomy criteria / certified as green using a recoginized scheme.

Client engagement

By **2024,** ensure that every year at least 5% of clients are advised about behavioral and renovation opportunities to improve energy efficiency.

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What do you think would be your greatest challenge in measuring your baseline performance?

ⓘ Start presenting to display the poll results on this slide.

We continue the program on Wednesday

12 July

9.00 Opening

9.05 **EE Underwriting toolkit** (Steven Fawkes/EEFIG)

9.45 **Towards a zero-emission, efficient and resilient buildings and construction sector in Sub-Saharan Africa / MENA** (Jonathan Duwyn / UNEP-GlobalABC and IFC)

10.45 **Break**

10.50 **Using ESCOs to scale up energy efficiency investments** (Jalel Chabchoub/African Development Bank)

11.50 **Wrap-up and closing** (UNEP FI)

Would your bank need capacity building in any other sustainability area?

- We would like to plan our future capacity building programs based on your actual demands as much as possible.
- With that objective, we would kindly like to ask for your support by completing our short survey (which takes just 3 minutes) about your capacity building support needs.
- **Link to the survey: https://forms.office.com/e/gfdvD8T9Fj**
- We would kindly request to complete the survey by **17 July** at the latest.
- Thank you for all the banks who already completed the survey!

Thank you for your attention and see you also tomorrow!

Slides will be shared in email.