

Informal Meeting of Ministers of Environment and Climate Change

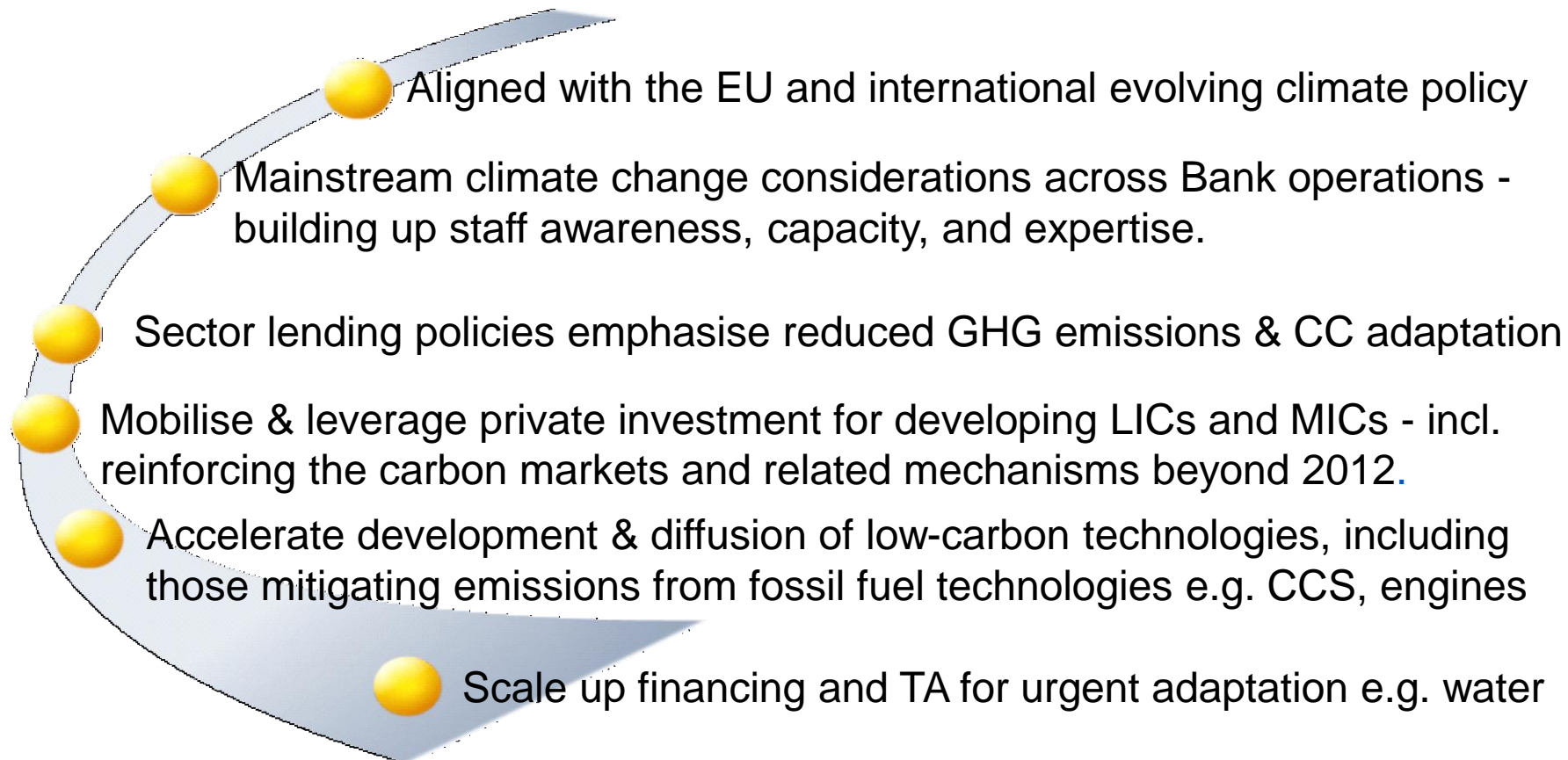
Financing Climate Change Adaptation

Thomas C. Barrett, Director
European Investment Bank

7-8 July 2012
Nicosia, Cyprus

EIB's Climate Action Strategy

EIB's corporate objectives, targets, principles and standards



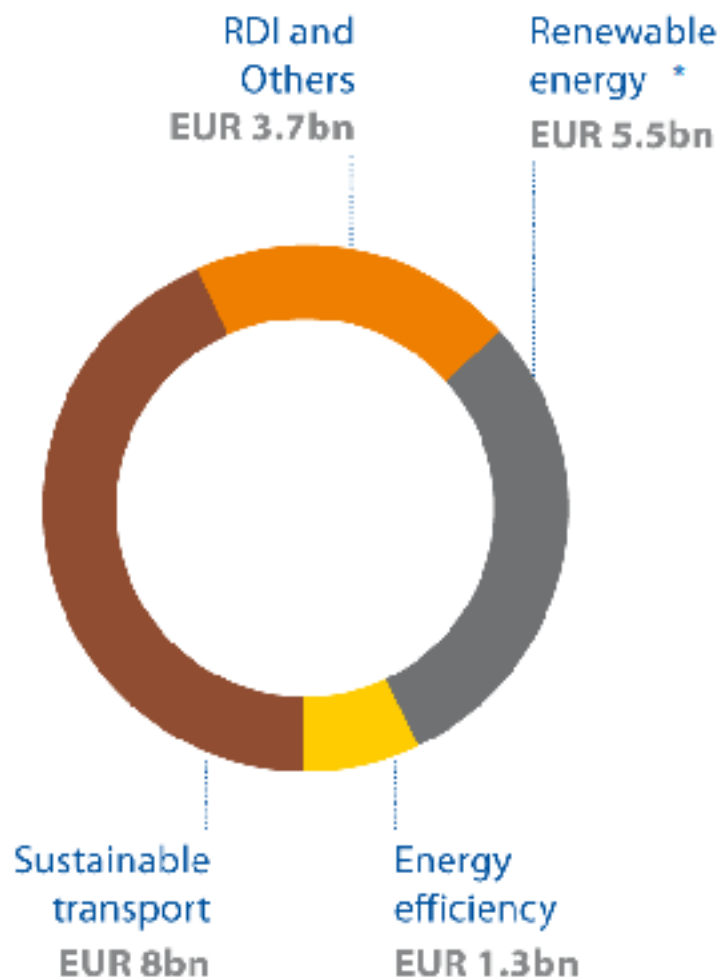
EIB COP KPI

Climate Change > 25% of overall lending;
RE > 20% of total energy

- 
- **Spur EU growth & jobs**
 - Special effort for SME financing
 - Explore options to leverage EU budget funds
 - **Deliver on Climate Action**
 - **Support to EU policies beyond its borders**
 - Focus on Pre-accession and Neighbours

EIB signatures and disbursements





Renewable energy, EUR 5.5bn of which EUR 1.7bn for Wind and EUR 819m for Solar

EIB approach to Adaptation:

- Focus on:
 - Projects in risky sectors (esp. projects exposed to water cycle)
 - Project in vulnerable areas (e.g. costal zones)
 - Projects potentially affecting livelihoods already near the limit of tolerance (e.g. the Sahel)
- Identify risks: environmental, credit, insurance, and reputational
- Actively manage risks - “Assess / Hedge / Review”:
 - Systematic screening of all projects for climate risks
 - Technical Advice to support clients in integrating climate risk assessment
 - Request promoters to address vulnerability to CC in project planning and design
- Cooperate with the EC, MDBs and EU FIs - share best-practice, lessons-learned; adopt consistent risk management approaches

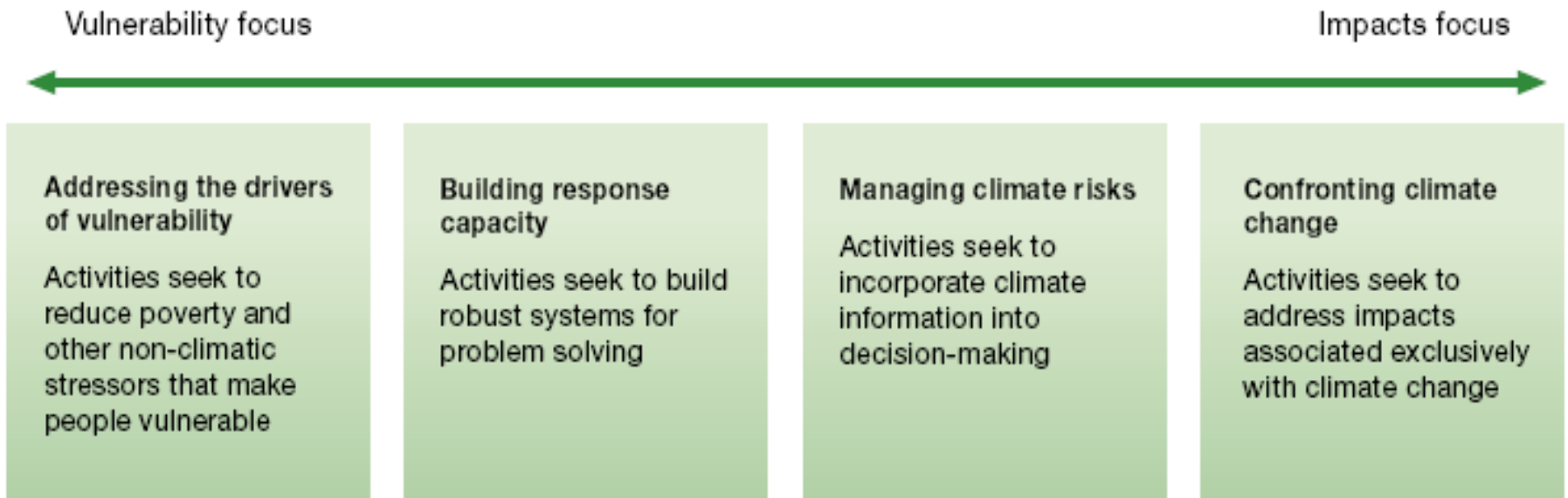
What is Adaptation ?

CC Response:	Mitigate	Adapt
Addresses	Causes	Effects
Resembles	Preventive medicine	Medical treatment
Benefits	Global, deferred	Local, Immediate
Concepts	Easy	Hard
Difficulty	Increases	Eases

Adaptation = increasing resilience to uncertain adverse CC impacts

- **Identify risks: potential impacts AND sources of vulnerability**
 - Vulnerable sectors → exposed to the water cycle or extreme events (e.g. water-dependent electricity generation, transport networks, agriculture)
 - Vulnerable areas (e.g. coastal areas, floodplains)
 - Vulnerable communities (e.g. weak economy or infrastructure base)
- **Actively manage risks : “Assess / Hedge / Review” (UKCIP)**
 - No accurate local predictions → ROBUST decisions based on projections
 - Focus on how your system will behave (e.g. transport network, water system...)
 - Flexibility → Plan for MANY futures (scenarios for City of London)
 - You cannot eliminate risks → “how many deaths are acceptable in a heat-wave?”

Adaptation = Increasing resilience: Reducing Vulnerability AND Addressing Impacts



Source: Klein & Persson, 2008

Some General Considerations

- Act now and learn to face uncertainty
- Climate change is largely water change
- Do not look at reduction of CC impacts in isolation:
 - Solutions should address BOTH impacts and vulnerability
 - Water is a key to meeting CC challenges for agriculture / food, energy, etc.
 - Identify actions that deliver climate, water AND growth benefits
- We cannot just “build our way out of CC” : Legislation, regulation, institutions, improved decision-making, planning, design → TA helps..
- Optimise the “Water Mix”:
 - Diversify water re sources and manage them as part of integrated system
 - Include loss reduction and demand management in the mix of resources
- Optimise the Financing Mix:
 - Water as a priority in climate finance (grants)? But improve coordination
 - Blend grants/loans - reduce adverse incentives of grants (eg on insurance)
 - Innovate to attract private finance

Water and Climate Projects:

What are we looking for? Some elements

Mitigation	<ul style="list-style-type: none"> • Energy efficiency • Energy recovery (biogas schemes) in wastewater treatment plants
Mitigation AND Adaptation	<ul style="list-style-type: none"> • Leakage reduction • Network efficiency • Metering
<u>Adaptation to water scarcity</u>	
Have CC scenarios concerning water availability and drought frequency been considered? How is the system vulnerable to this? How do the proposed solutions address this vulnerability?	
	<ul style="list-style-type: none"> • Improve water allocation and use • Develop new resources, including non-conventional alternatives (e.g. transfer schemes, desalination) • Interconnect resources into more resilient system • Protect existing water sources (wastewater, stormwater management)
<u>Adapting to excessive flows</u>	
Have CC scenarios concerning flood severity and frequency been considered? How is the system vulnerable to this? How do the proposed solutions address this vulnerability?	
	<ul style="list-style-type: none"> • Flood modelling and monitoring • Development of risk-based strategies • Flood protection of infrastructures • Storm water basins an retention tanks

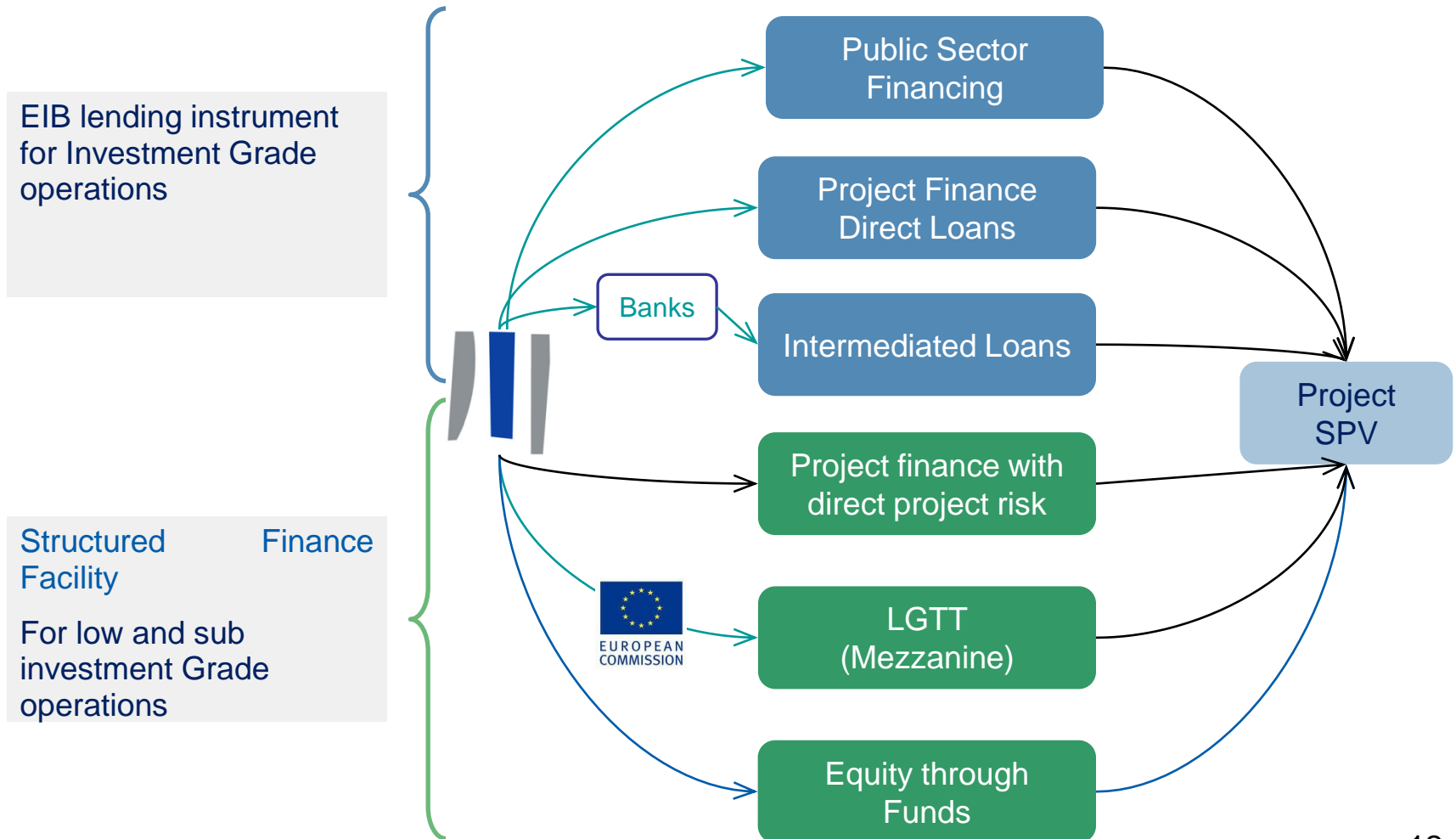
Priorities for the EIB – The EU bank

LENDING	BLENDING	ADVISING
<ul style="list-style-type: none">▸ Loans <p>But also:</p> <ul style="list-style-type: none">▸ Guarantees▸ Equity participation	<ul style="list-style-type: none">▸ Combining EIB loans and EU grants▸ Leveraging EU and Member States budget resources	<ul style="list-style-type: none">▸ Strong in-house expertise▸ Technical and financial advice▸ Technical assistance initiatives

Attracting **FUNDING** for long-term growth

EIB Financing Instruments

- ❖ EIB has at its disposal an extensive range of instruments to finance public and private sectors



Blending of Budget and non-Budget resources;

➤ **Blending can contribute to investment; improves financial impact; curtails the risks borne by public authorities; and offset the requirements on the banking sector**

➤ **Need to grow the volume of Innovative Instruments** across the EU & candidate countries.

- The investment requirements of the transport; energy climate change and digital broadband sectors are approximately EUR 2 trillion over the next decade.
- Financing needs for major transport infrastructure investments go well beyond the means of national budgets
- PPPs currently finance an important but minority share of EU infrastructure investments

➤ **Investment needs are so significant that they will require smarter use of public finance**

- Innovative and blended financial instruments can expand the role of private finance and leverage public grant funding of projects
- Greater co-financing of infrastructure by EU capital markets, currently a significantly under-utilised source of finance for large economic infrastructure required to compensate for the lesser role of banks.

EIB Advisory programmes in partnership with EC and EDFIs

Enhancing infrastructure investment in Europe through technical and financial advisory programmes



EPEC - European PPP Expertise Centre

- ❖ Strengthen the ability of the public sector to engage in Public Private Partnership (PPP) transactions by building up Members organisational capacity and sharing experience and expertise, analysis and good practice

JESSICA

JESSICA – Joint European Support for Sustainable Investment in City Areas

- ❖ Advisory services on the structuring and management of Jessica Funds, an Innovative financing instrument for integrated urban development, launched by EU Commission (DG Regio), EIB and CEB.
- ❖ Higher productivity of EU / public funds – uses Financial Leverage Effect and Expertise



JASPERS - Joint Assistance to Support Projects in European Regions

- ❖ Technical assistance between DG REGIO, EIB, EBRD, and KfW to prepare major projects in cohesion countries
- ❖ Increases the capacity of the beneficiary countries to absorb EU funding in support of priority investment

Italy, Acquedotto Veneto Centrale

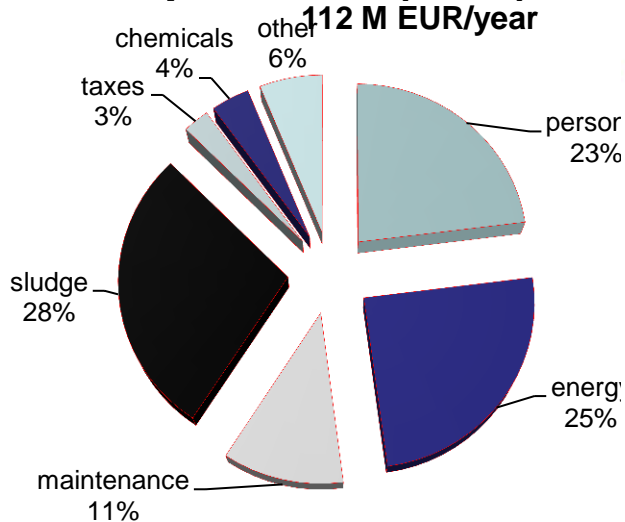


- Groundwater extraction works at the alpine foothills connected to 173 km ring pipeline serving distribution networks of Venice, Padova and other cities
- Ring pipeline and new source provide increased security – the quality of the Adige River deteriorating due to ever more frequent dry spells with low flows
- Will also help save energy and reduce emissions by avoiding water treatment and improving pumping operations

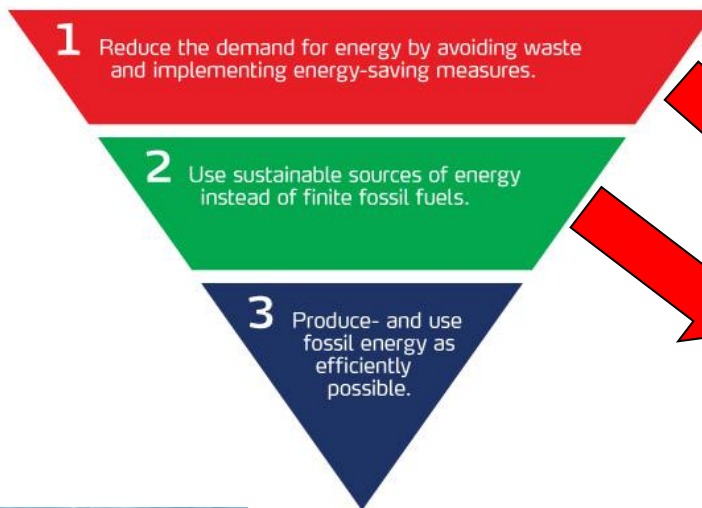
Water projects can deliver both adaptation and mitigation benefits

Aquafin VIII, Belgium

Operations (2010)



The Trias Energetica concept:
the most sustainable energy is saved energy.



- Total projects + CHP
- 14.000.000 kWh saved
- > 2 M EUR / year
- Target 20% savings by 2020



Risks:

- Higher rainfall intensity
- Longer droughts

Response:

- New design standards
- Separation
- Process research

Mitigation & Adaptation

Czech Republic: National Flood Prevention Programme



- ❖ The Czech Republic was hit hard by six disastrous floods in one decade: 100 casualties, € 5 bn damage
- ❖ 2002-2012 National flood prevention strategy - total costs € 750 million - Goal: increase protection for 800,000+ people and key infrastructure
- ❖ EIB worked with Strategic Experts to support scheme selection based on a comprehensive risk analysis

**What matters most in Adaptation
is the logic behind the
interventions**

Malawi, Peri-Urban Water & Sanitation



- Initial goal : increase supply & access to low income areas in Lilongwe & Blantyre
- Leakage reduction made a priority thanks to EIB experts & TA support: (i) makes water available to increase access at lower costs - in Blantyre water needs to be pumped up 100m; (ii) helps reduce energy consumption and GHG emissions
- Innovations: (i) procurement of management contract; (ii) scaling-up of successful NGO solutions
- Resulting benefits: access at lower cost; community involvement; improve finances of Water Boards; reduce GHG emissions; increase system resilience

**Delivering CC, water and development benefits
(even if initial objectives did not include CC..)**

Climate Action: Favouring renewables and energy efficiency



- Financing the installation of over 4000 mega watts of wind and solar plants, to power over 2 million households
- EUR 7bn for renewables and energy efficiency

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