



Using Impact model to assess the continuing relevance of public interventions

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**WGEPP Forum 2026
Rabat, 15.09.2026**

Outline

1

Open the Black box

Why relevance assessment starts with a deep understanding of the intervention and its context.

2

Build the impact model

Definition, core elements, results chain, and the main ways to represent intervention logic.

3

Use the model assess relevance

relevance drift, questions and indicators.

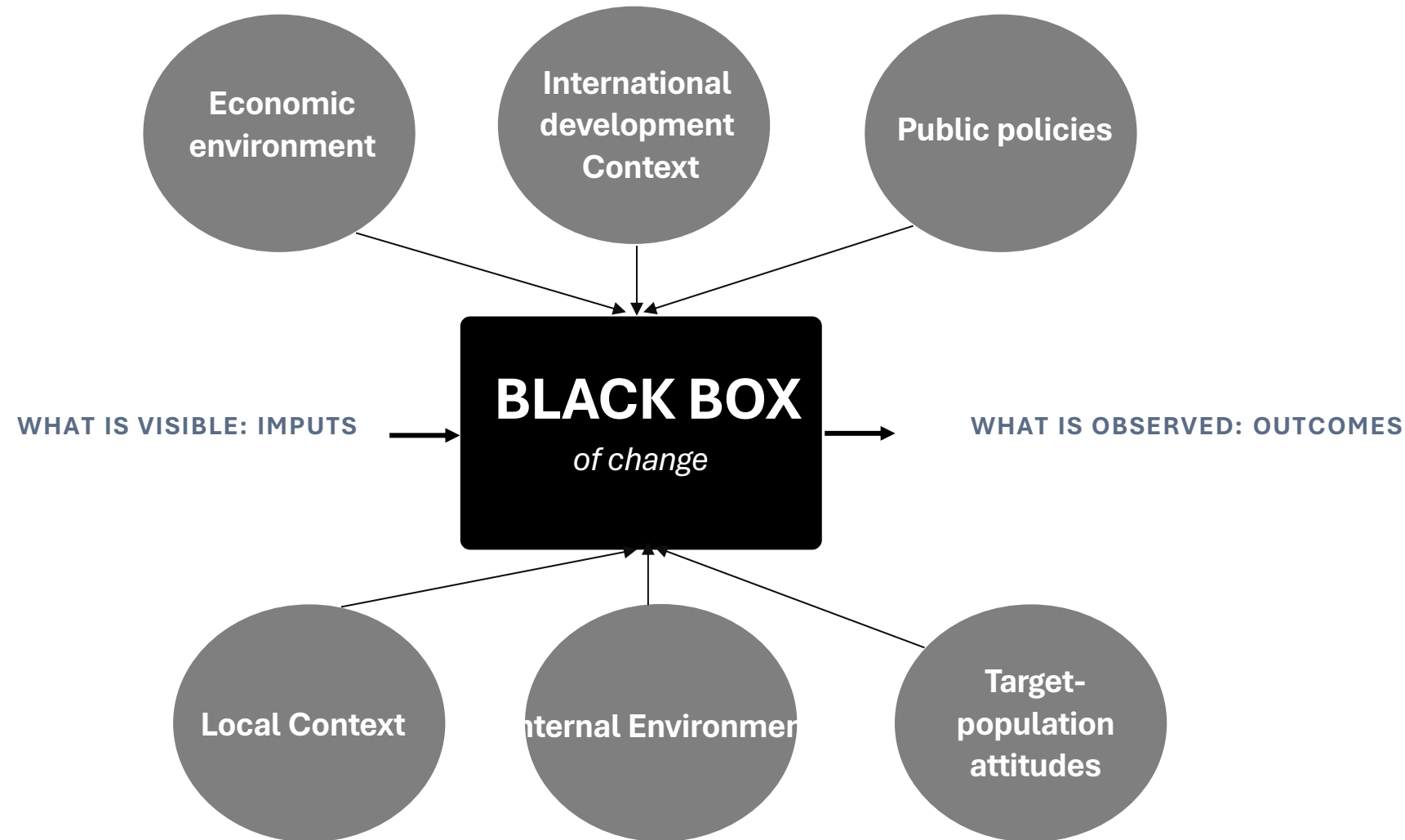
4

Apply the model in practice

Traffic and Road Circulation Management in the City of Casablanca

Why should we open the black box?

A relevance judgement requires a deep understanding of what the intervention is trying to change and how.

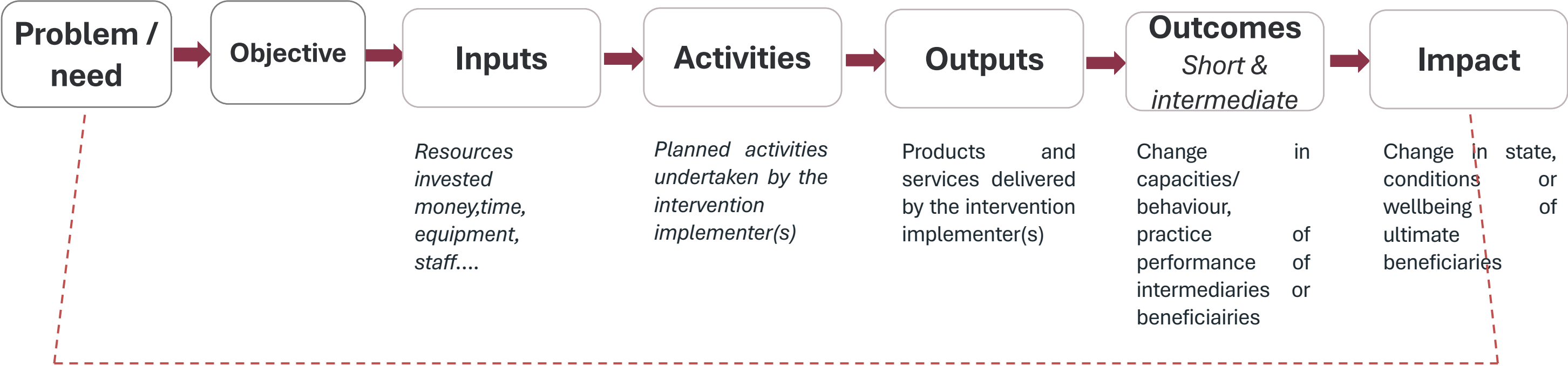


Impact model: powerful tool to open the box and acquire deep understanding before fixing evaluation questions.

What is an impact model?

An **impact model** is an explicit representation used to define, monitor and assess the performance and impact of public interventions. They explicitly articulate how an intervention will achieve the desired objective(s), including causal relationships and underlying assumptions and risks.

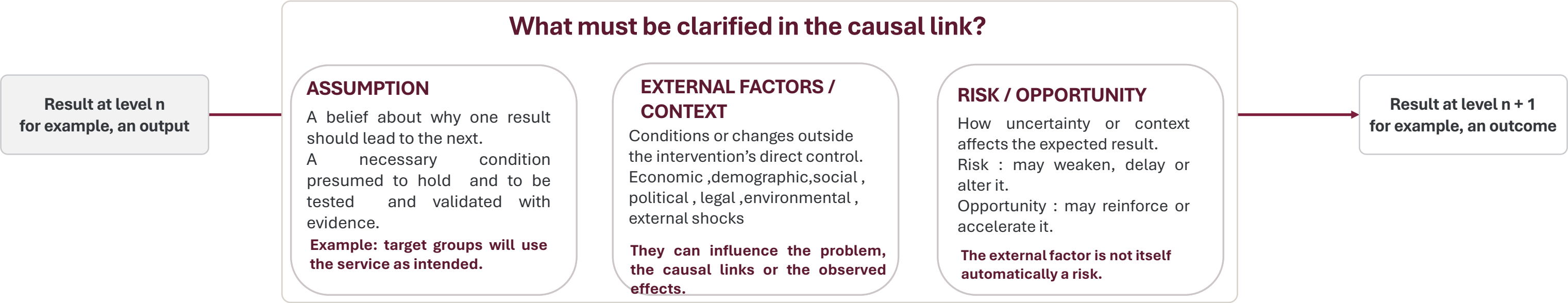
1 Results chain: What is expected to happen?



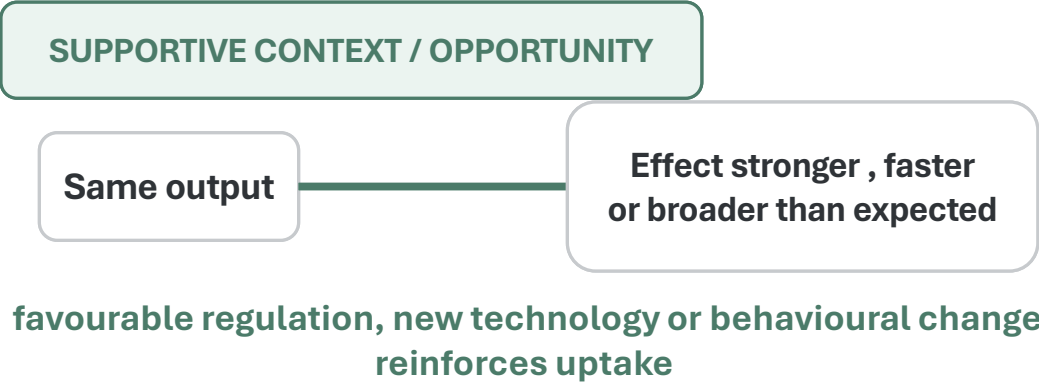
The essential test is not the boxes alone, each arrow expresses a causal proposition that need to be examined.

What is an impact model?

2 Causal logic: Why and under what conditions?



Same intervention output ≠ same observed effect



What is an impact model?

3

Measurement & evidence:

How can the effects be tested?

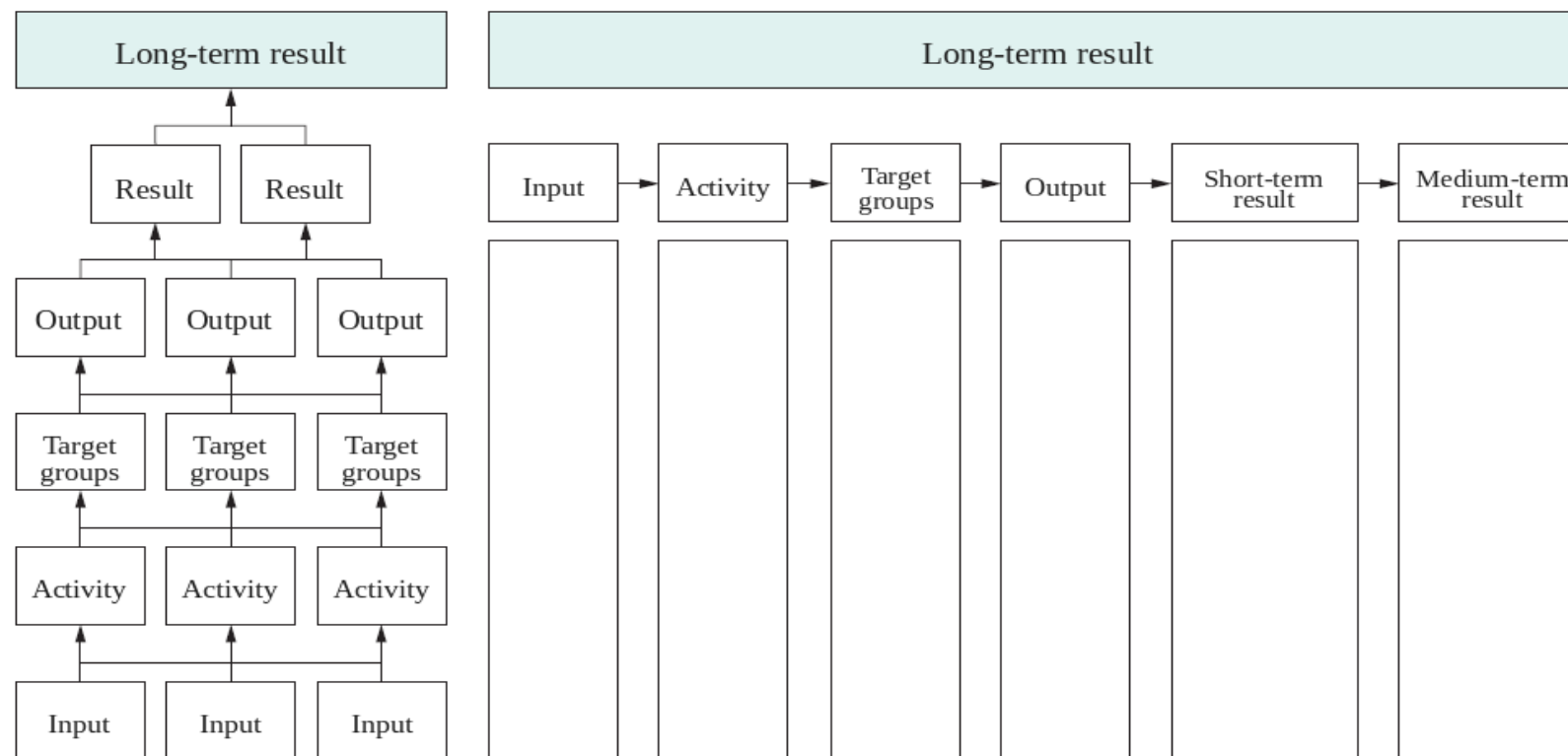
Translate expected effects into observable evidence

Objective	Indicator	Target	Data source	Comparison
Output	Value	Target	Source	Before/after
Outcome	Value	Target	Source	Trend
Impact	Value	Target	Source	Benchmark

Without indicators, targets, data sources and a comparison point, the causal claims in the model cannot be tested.

How its represented?

Impact models can be represented in different ways ,the representation should remain as simple as possible while capturing what matters.



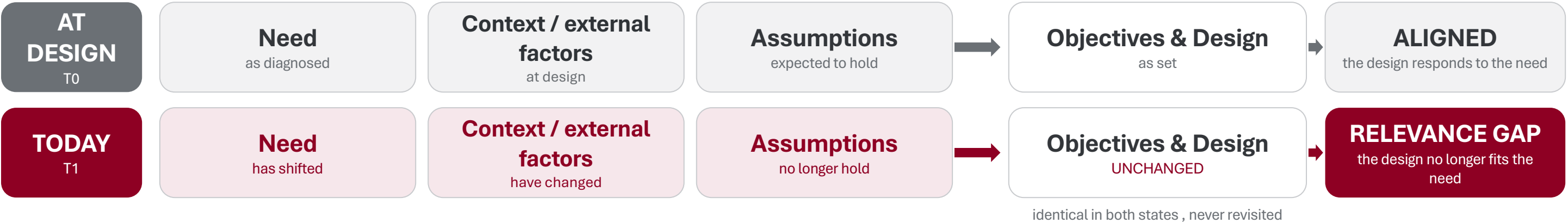
Other, more systemic and complex representations:



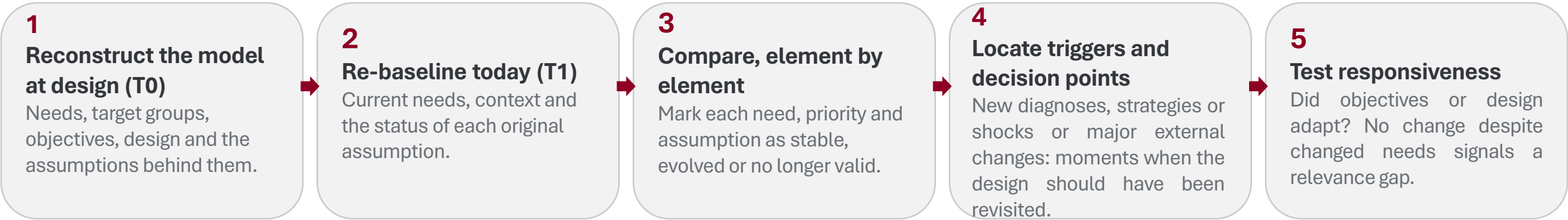
Unintended Effects: Effects generated by the intervention but outside the intended pathway. They may be positive or negative, direct or indirect, and may affect target or non-target groups.

How to use the model to assess relevance?

The impact model can be reopened when needs, context or causal assumptions change while objectives and design remain fixed.



How can Evaluators detect it?



Red flags of drift:

- objectives or targets unchanged for years despite new diagnoses;
- A key assumption no longer holds (behaviour, technology, other actors);
- new needs or affected groups not covered;
- An external factor has shifted the problem the programme targets.

How to use the model to assess relevance?

Model element	Relevance question	Evidence to collect	Possible indicator
Need / problem	Is the need still current and priority?	Updated diagnosis, administrative data, surveys, stakeholder evidence	Trend in the need vs baseline, current benchmark
Objective and design	Does the design still respond to the need?	Objectives, design files, alternative options, decision records	Alignment: current needs vs objectives and instruments
Assumption	Does the causal condition still hold?	Monitoring data, research, interviews, implementation evidence	Assumption status, threshold indicator
External factors / context	Which exogenous changes may explain weaker or different effects , or change the appropriateness of the design?	Economic, demographic, social, legal, technological, environmental and shock data	Context trend , threshold , deviation from design conditions
Adaptation and responsiveness	When context changed, did objectives or design adapt in time?	Revision records, reallocations, updated plans and decision points	Evidence of timely adaptation vs a design left unchanged

Focus on the links that are material, uncertain or changing , above all the need, the assumptions, external context and the adaptation record.

What are the main challenges when using impact models?

The challenge is not drawing boxes, but building a model that is clear, credible, shared and usable.

1 Balance detail and simplicity
Simple enough to understand, detailed enough to explain the causal logic.

2 Build participation and ownership
Involve key stakeholders and secure support for the model's use.

3 Choose a workable development process
Balance top-down guidance with bottom-up knowledge and experience.

4 Look beyond intended effects
Remain alert to consequences that were not planned, positive or negative.

5 Deal with time lags
Some effects emerge late; measurement and expectations must adapt.

A useful impact model should remain understandable, shared and open to refinement as evidence and context evolve.

Practical Case: Evaluation of Traffic and Road Circulation Management in the City of Casablanca

1 The starting point

Casablanca's traffic and road circulation system was under growing pressure:

- Rapid Urban Growth And Rising Travel Demand;
- Recurrent Congestion And Gaps In Road-network Continuity;
- More Interaction Between Tramway, Road Traffic And Pedestrians;
- Parking, Freight And Port related Pressures;
- Several Actors, With Limited Integrated Monitoring.

2 What the intervention brought together

Multiple measures aimed to improve access, traffic flow, safety and reliability.

- Road and junction improvements, corridors and tunnels;
- ITS, signal regulation and a central traffic-control system;
- Public-transport priority and tramway-road interfaces;
- Parking, public-space and freight management;
- Governance, coordination, data and monitoring.

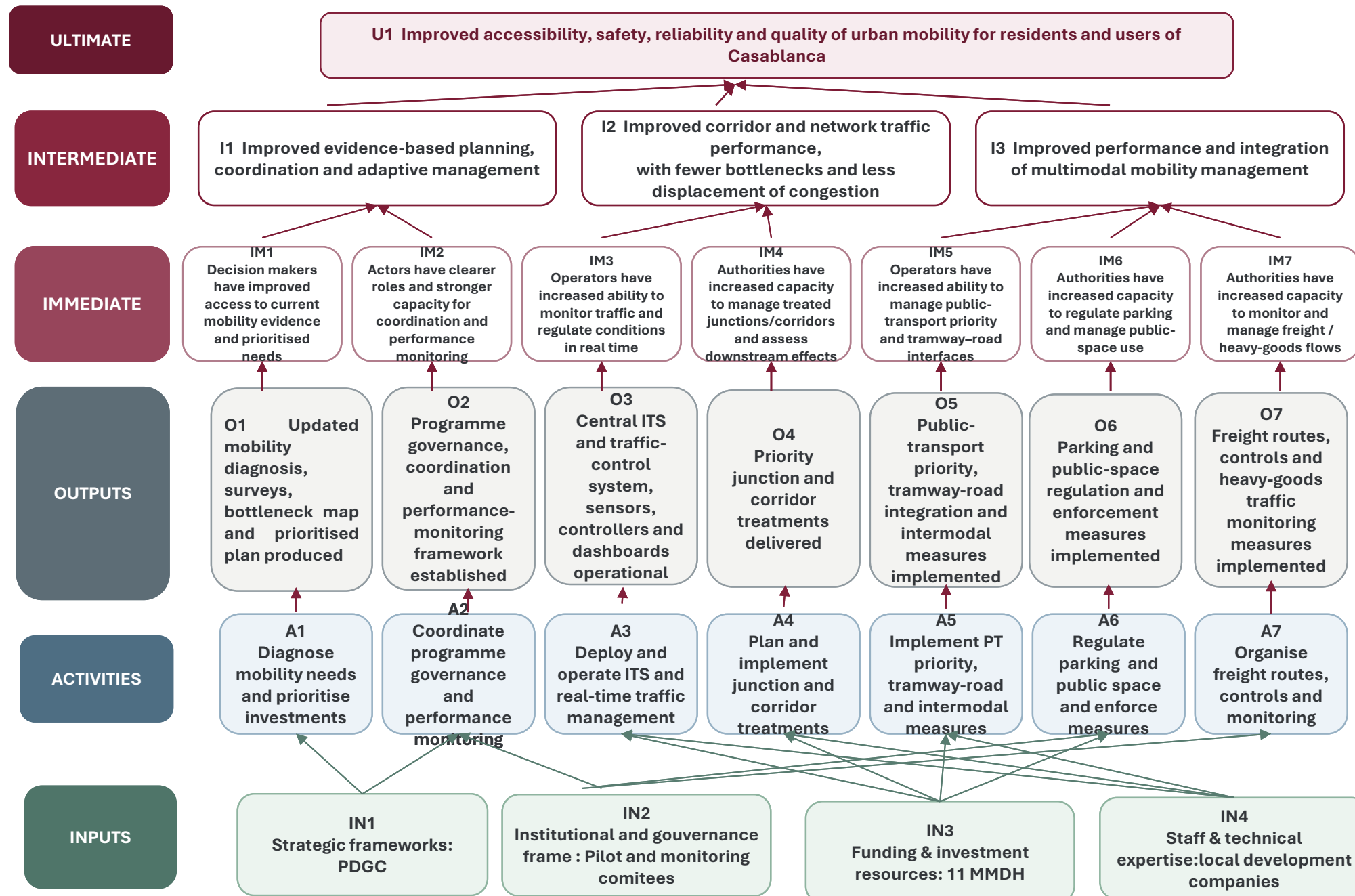
3 Why reconstruct the Theory of Change?

The measures were spread across plans, programmes, conventions and individual projects. Their overall causal logic was never set out in one place.

- Link Each Measure To The Need It Was Meant To Address;
- Clarify How Inputs And Activities Were Expected To Lead To Results;
- Make The Key Assumptions, Risks And Context Visible.

Main relevance question: Assess whether the city's traffic and road circulation management objectives and design remain aligned with evolving mobility needs and context.

Practical Case: Traffic and Road Circulation Management in the City of Casablanca-ToC



EXTERNAL FACTORS / CONTEXT

Urban expansion & peripheral development
Evolving legal and decentralisation framework
Evolution of other PDGC and metropolitan projects
COVID-19 and socio-economic disruption

ASSUMPTIONS & RISKS

ULTIMATE / CONTEXT

Assumption: Benefits remain sustained and broadly shared; maintenance, funding and coordination persist.
Risk: Rapid demand growth, unequal benefits, budget constraints, technology obsolescence or external shocks.

INTERMEDIATE → ULTIMATE

Assumption: Performance gains are sustained and become significant enough to improve accessibility, safety and reliability.
Risk: Congestion displacement, induced demand, road-only bias or changing land-use, logistics context.

IMMEDIATE → INTERMEDIATE

Assumption: New capacities are consistently used in practice, coordinated across actors and supported by current data.
Risk: Information not used, siloed decisions, weak enforcement or capacity not converted into practice.

OUTPUTS → IMMEDIATE

Assumption: Outputs are accessible, functional, maintained and used by the responsible actors and target groups.
Risk: Obsolete data, unused ITS, missing complementary measures, weak maintenance or enforcement.

ACTIVITIES → OUTPUTS

Assumption: Activities are completed to the required quality, on schedule and in a coordinated way.
Risk: Procurement delays, incomplete works, weak coordination or implementation-quality problems.

INPUTS → ACTIVITIES

Assumption: Resources, mandates, staff, data and procurement arrangements are available when needed.
Risk: Funding delays, staff shortages, fragmented mandates

Practical Case:Traffic and Road Circulation Management in the City of Casablanca-Main relevance findings

ToC link examined	Relevance question	What the evidences showed?	Type of issue	Relevance assessment
A1 -O1 - IM1 - I1 adaptive planning	Were mobility needs and priorities periodically reassessed using current evidence as circumstances changed?	Mobility data existed, but they were not systematically converted into a continuous reassessment loop.	Assumption And Context	Continuing relevance is difficult to demonstrate when updated evidence is not routinely used to reassess needs and priorities.
A4-O4 - IM4 - I2 Corridor works and network performance	Was the design of local junction and corridor works sufficiently network-based to address the wider congestion problem, rather than only isolated bottlenecks?	tunnels addressed genuine local bottlenecks, but the some untreaded important sections broke the intended continuity	Risk And Design	Locally relevant, but only partially relevant to the wider congestion problem because the design no longer preserves corridor continuity.
A5 - O5 - IM5 - I3 Multimodal measures and integrated mobility	Did the multimodal package remain aligned with current mobility needs as the transport system and travel patterns evolved?	Tramway and BHNS expanded, while park-and-ride, interchange hubs and tariff-operational interoperability remained late or incomplete. Active-mode and bus-priority measures also lagged behind the multimodal objective.	Need And Context	The intervention package did not adapt at the same pace as current multimodal and intermodal needs.
A4 -O4 - I2 - U1 CONTEXT : Urban growth vs network connectivity	As Casablanca expanded, were road investments reprioritised toward new peripheral, transversal and network-connectivity needs?	Urban expansion and peripheral mobility needs evolved faster than the network response. Several developing areas still lack continuous and transversal links and remain dependent on a small number of structuring axes.	Need And Context	Continuing relevance requires greater emphasis on network continuity, transversal links and alternative routes as the urban context evolves.

The issue was not the absence of mobility needs, but weak assurance that the design remained an integrated, evidence-based and adaptable response to evolving needs.

Key messages

The impact is the map that helps us ask the right questions.

1

Relevance is alignment over time

Needs, objectives, design and context must remain coherent as circumstances change.

2

Open the black box

Examine causal links, assumptions and external factors. and distinguish what the intervention can influence from what the context may explain.

3

Turn the model into evaluation work

Fragile or changing links become focused questions, evidence needs and indicators.



Thank you