



Infrastructure  
and Projects  
Authority



## The 5 Case Model

### Infrastructure Business Case Guidance

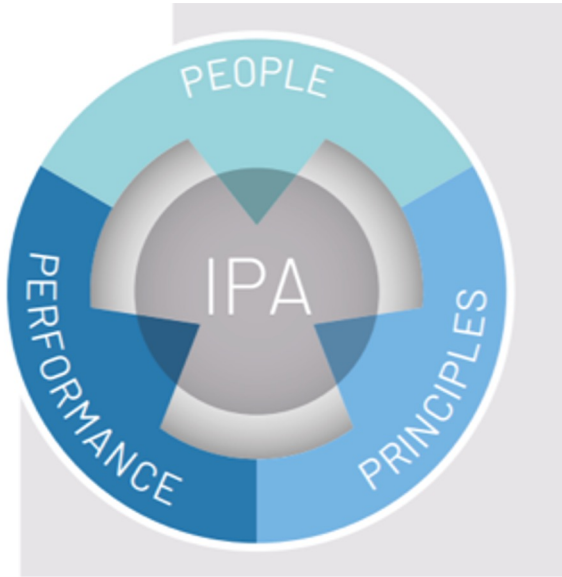
#### - International Model

James Ballingall

September 2022

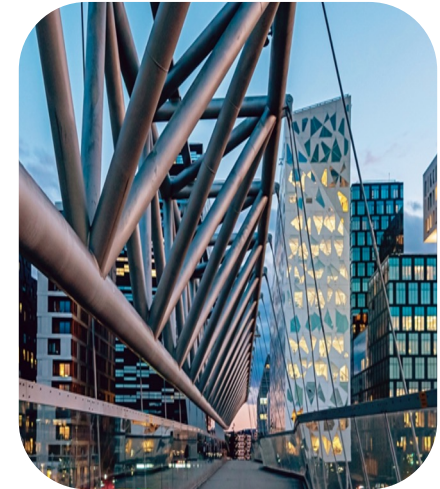


# Introducing the new infrastructure international business case guidance produced by the IPA in conjunction with the Better Business Case Standards Board



# Agenda

- Background to the Guidance
- Why was it created?
  1. The Infrastructure gap
  2. How to bridge it
  3. The Global Infrastructure Programme
- The 5 cases
- New international infrastructure version
- Training and Accreditation



# Infrastructure and Projects Authority - Who we are

The IPA is the government's centre of expertise for infrastructure and major projects and PPPs.

Our core teams include experts in **all elements of project delivery**: infrastructure, IT, defence transformation, project finance and project profession capability.

We support the successful delivery of all types of major projects; ranging from railways, schools, hospitals and housing, to defence, IT and major transformation programmes.

## Our purpose

We deal with every aspect of major project delivery. Our purpose is to drive continuous improvement in the way government delivers infrastructure and major projects.



## International Team

We have worked with 60 countries over the past 15 years. We have helped set up a number of PPP units worldwide

To know more about the IPA, please visit:  
<https://www.gov.uk/government/organisations/infrastructure-and-projects-authority>

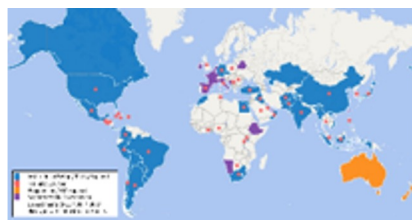
# IPA 's International Team – what we do

The International team has provided policy, technical advisory and capacity building support to over 600 overseas senior officials and decision makers...

from Ministries of Economics, Finance, Planning, Development Banks, Multilateral Organisations...



...from more than 60 countries across the 5 continents...



...through London-based and in-country activities....



...covering a broad range of infrastructure related disciplines...



...and our international advisory and capacity building activities allow us to...

promote British expertise on PPPs and Infrastructure planning, financing and delivery...



...showcase the best design, engineering and construction projects in the UK...



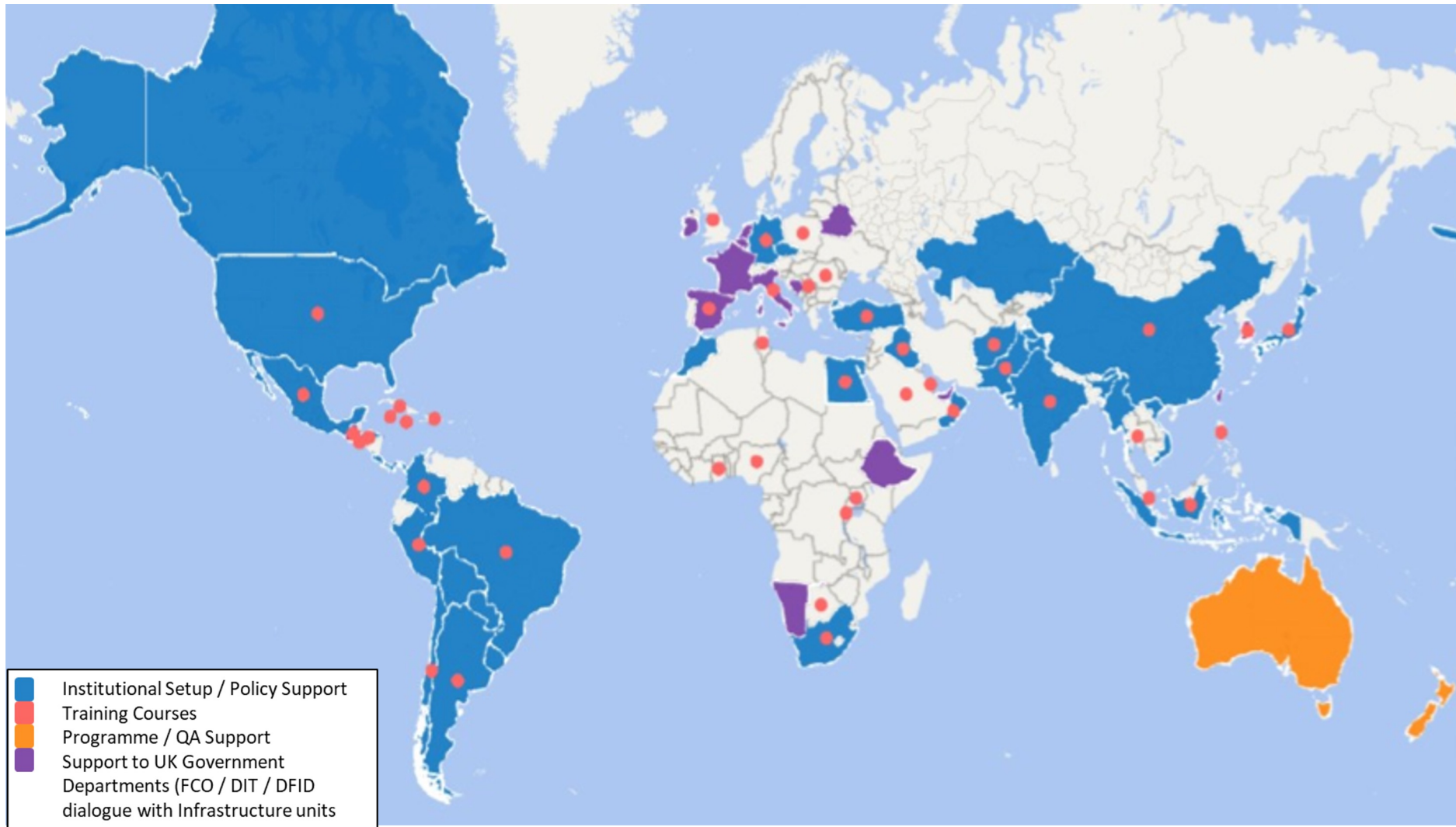
...support project development and influence policy making internationally...



...maintain a global network and ensure we are current with international best practice.



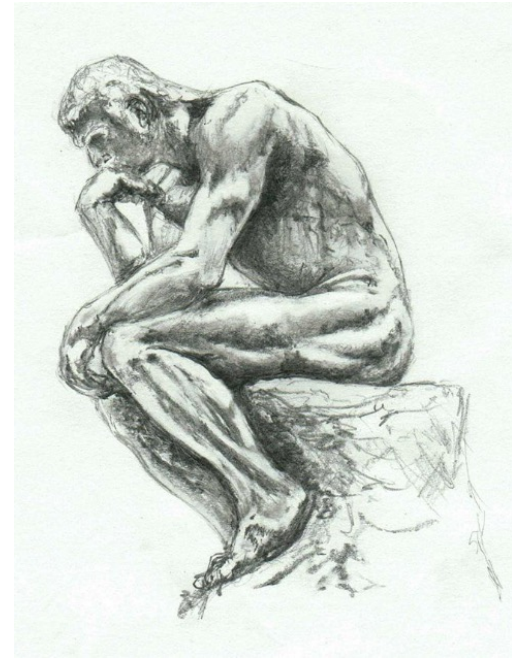
# Where we do it



# The Infrastructure Problem

Not what you might think

5 case model IIL USA



# The Problem

*“A critical issue slowing the flow of private capital to infrastructure is the lack of properly structured, bankable projects”*

G20

*“The key bottleneck to infrastructure development is not capital, but a severe lack of bankable projects which can attract private capital”*

World Bank / G20

## Common challenges for infrastructure projects around the globe

*“Project preparation is critical to moving projects to bankability”*

World Economic Forum

*“Many potential infrastructure projects in developing countries struggle to secure financing, due to poor preparation and packaging of project proposals”*

Institute of Civil Engineers



## The Global Infrastructure Gap - more of a spending than a funding issue.

### The Challenge

Infrastructure is vital to a country's prosperity and as an **enabler of economic growth** and poverty reduction, but there is **global infrastructure 'gap'**.

**A critical problem** is the **lack of properly developed, bankable projects** that **investors have confidence in**.

In addition: inefficiencies in the project development process, such as:

- **Poor project selection, preparation and appraisal,**
- **Implementation and delivery,** and
- **Monitoring and evaluation,**

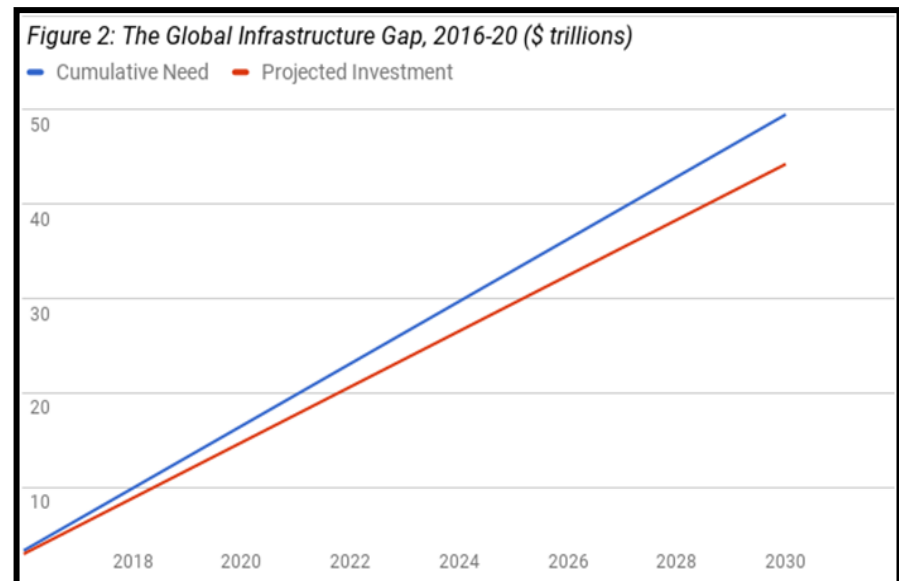
can result in only a fraction of public investment translating into productive infrastructure.

**\$350  
billion**

**\$5.2  
trillion**

The current infrastructure spend required is estimated by McKinsey to be \$3.3tn globally per annum

The shortfall – the infrastructure 'gap' - is 11per cent of that p.a, or \$350 billion, amounting to \$5.2 trillion over the period 2016 – 2030





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Introducing the

## Global Infrastructure Programme

which developed the

Infrastructure Business Case:  
International Guidance



# Global Infrastructure Programme



The Global Infrastructure Programme (GIP) was a **technical cooperation scheme in infrastructure** funded by the UK Government's Prosperity Fund and implemented by IPA (Infrastructure and Projects Authority), FCO (Foreign and Commonwealth Office) and BEIS (Department for Business, Environment and Industrial Strategy).

*In a nutshell*

Spent  
£13  
Million

Over  
4 Years

Support  
about 10  
countries

*To support through*

Tools adaptation  
and adoption

Capacity building  
and certification

Implementation  
Support

The GIP's main objective was to help **transform the infrastructure systems, and thus promote inclusive economic growth, reduce poverty, support gender equality and increase private investment and business opportunities** in partner countries. This is done through the development of best practice tools/methodologies and adaptation for use in partner countries. Aim : "to help close the gap".

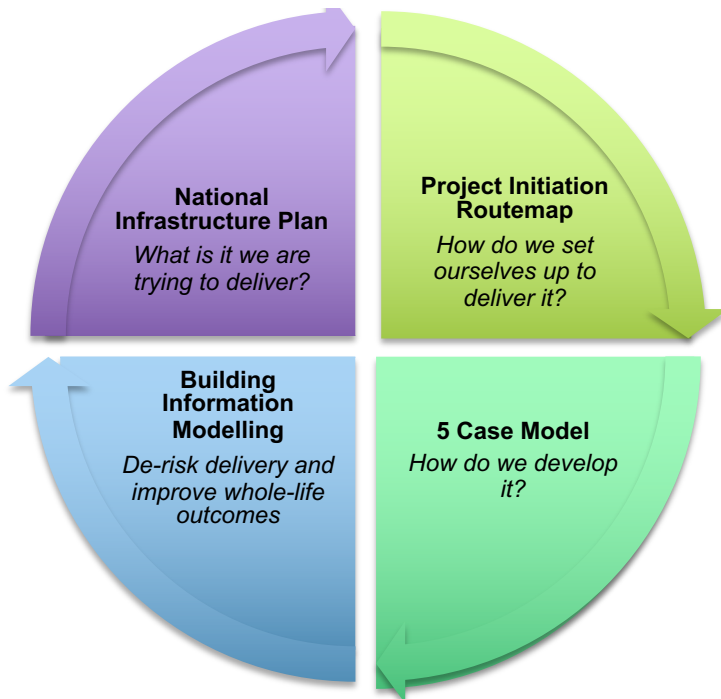
# The Three Methodologies

The Global Infrastructure Programme presented a unique offer.

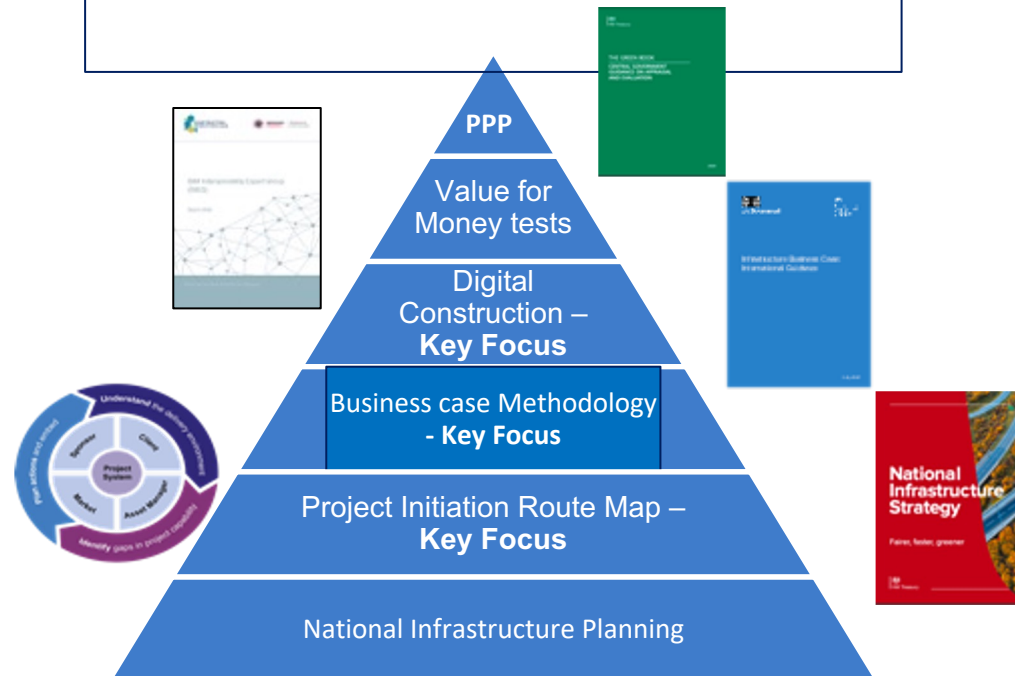
For partner countries, it developed new methodologies – based on the UK's world leading products – to help governments plan and develop effective and sustainable infrastructure. The 5 case methodology was one of these.

The Programme offer had the support of the World Bank, U.N. and IADB.

## Creating a sustainable infrastructure model



## UK Methodologies – building blocks



# Benefits

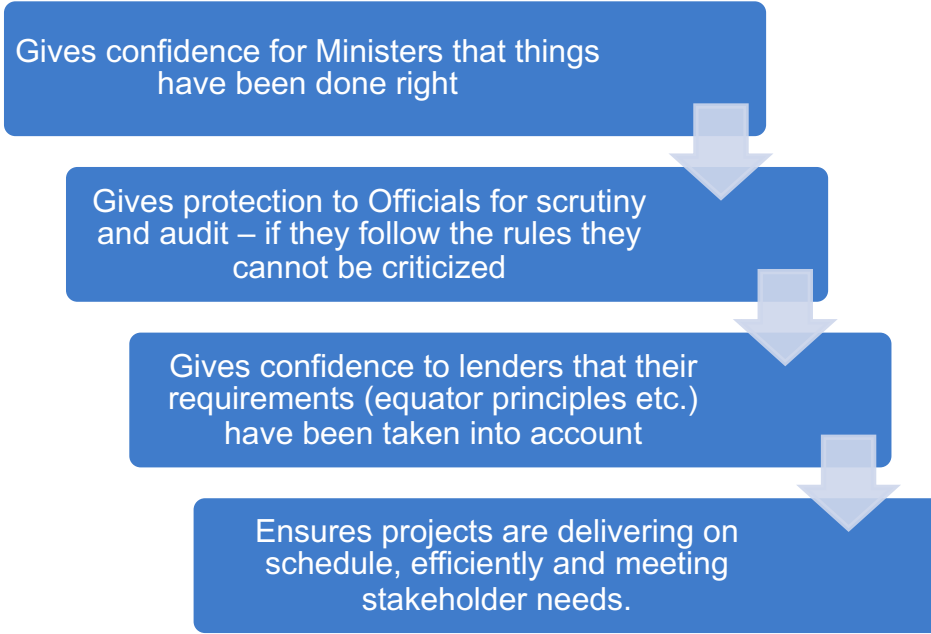
The 5 case methodology gives the following key benefits to ministries and local authorities:

- It gives an overall **process for scoping and planning** government spend
- It gives a **structure for project preparation** to make sure the project is properly prepared for market and likely to succeed
- It provides a **framework for project evaluation and approvals**
- It gives **tests to ensure tax payers money is well spent** and VfM is optimised
- It provides an **audit trail** to withstand retrospective scrutiny
- And it gives **Transparency, Certainty and Consistency** to investors!

# Benefits



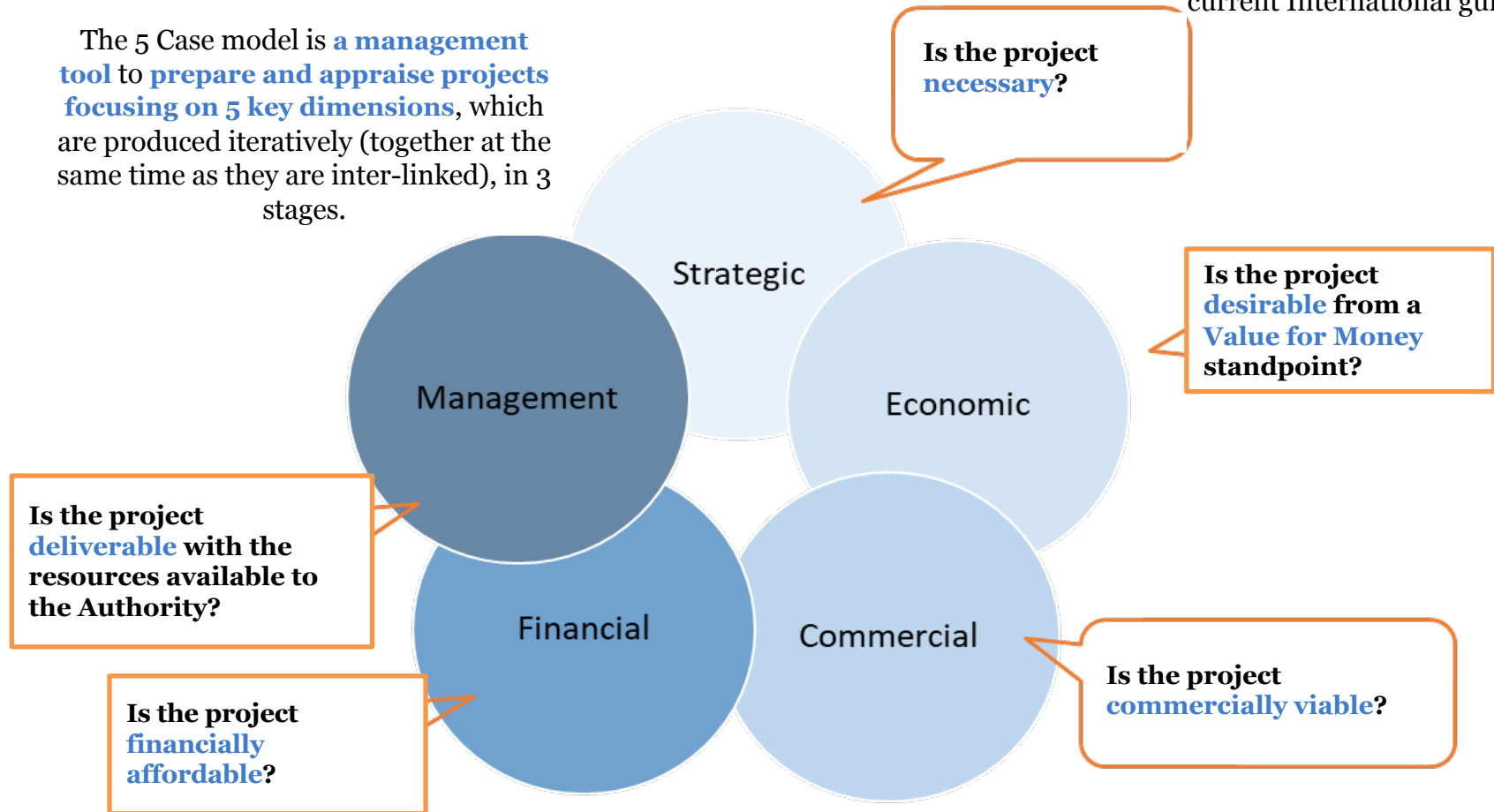
## In Country Benefit



# *We created new Infrastructure International Guidance - Part of the 5 case family.*

Approved by the BBC standards board and based on the core 5 case concepts of the UK guidance. Different to the current International guidance

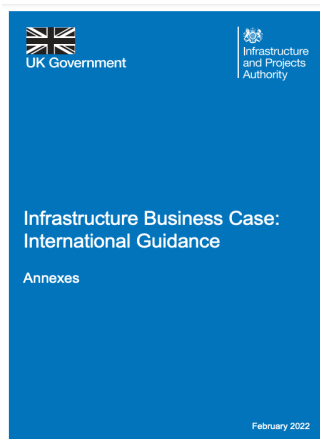
The 5 Case model is a **management tool** to **prepare and appraise projects focusing on 5 key dimensions**, which are produced iteratively (together at the same time as they are inter-linked), in 3 stages.



# With a Suite of Documents specially adapted for Infrastructure and for International use



**International  
Guidance**



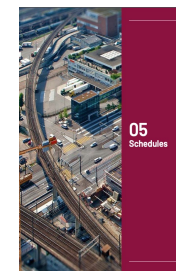
**International  
Case Study**



**International  
Templates**



**International  
Technical Notes**



**International Infrastructure: Business Case Development Guidance -**

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/902005/International\\_Infrastructure\\_Business\\_Case\\_Guidance.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/902005/International_Infrastructure_Business_Case_Guidance.pdf)

**Infrastructure Business Case: international case study -**

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/902004/International\\_Infrastructure\\_Business\\_Case\\_Guidance\\_Case\\_Study.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/902004/International_Infrastructure_Business_Case_Guidance_Case_Study.pdf)

**Infrastructure Business Case: international guidance annexes -**

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/902007/International\\_Infrastructure\\_Business\\_Case\\_Guidance\\_Annexes.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/902007/International_Infrastructure_Business_Case_Guidance_Annexes.pdf)

**Part of a broader family of UK documents and based on Green Book**





# Translated and Updated

- Guidance materials & Case Study
- International, Spanish, Portuguese & Bahasa Indonesia versions
- Informed by stakeholder engagement in country
- Accompanying training materials
- APMG accredited



## 5CM refresh:

- Decarbonisation
- Resilience
- UN SDGs
- Inclusive growth

Published in February 2022

**With a training and accreditation programme**



# Adopted as global best practice – and spreading round the world

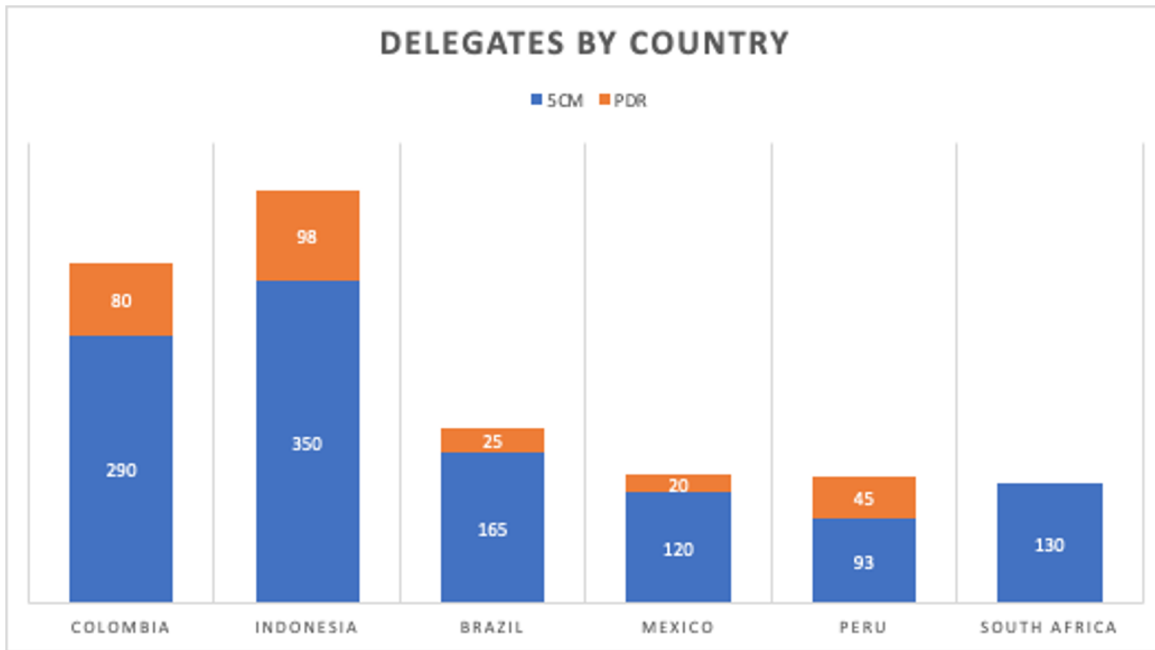
<h2 style="text-align: center;">G20 Principles Infrastructure Project Preparation</h2> <div style="text-align: center;"><p><i>G20 Principles for the Infrastructure Project Preparation Phase</i> <i>Prepared by the Infrastructure Working Group</i></p><p>The introduction of robust and transparent infrastructure planning and pipelines, improved business cases and project stage gate controls, and the development of business case methodologies have led to more productive infrastructure being built.</p><p>The following <u>Principles for the Infrastructure Project Preparation Phase</u> could be considered when preparing national and regional infrastructure projects. The Principles consist in a list of critical aspects to consider under the following dimensions:</p><ul style="list-style-type: none"><li>• Project rationale</li><li>• Options appraisal</li><li>• Commercial viability</li><li>• Long-term affordability</li><li>• Deliverability</li></ul></div>	<h2 style="text-align: center;">Global Infrastructure Programme</h2> <div style="text-align: center;"> </div>
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Does it work in any country? Yes  
Because the questions the “5 case model” asks are the same the world over  
– though the answers may differ!

# Trainings completed across all Methodologies

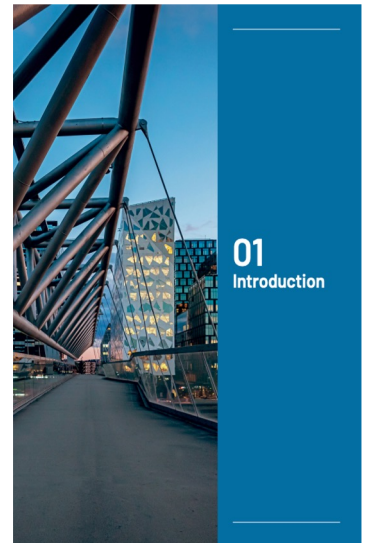
5CM Foundation	5CM Practitioner	Project Development Routemap	Total
1010	575	285	1870

**46% Female Delegates**



# A look at the new materials

A new Opportunity for  
trainers  
to expand their offering  
around the world





# Workshops

**Key:**

Strategic

Economic

Commercial

Management

**Workshop 1:**  
Strategic Needs

**Workshop 2:**  
Options Development

**Workshop 3:**  
Preferred Options

**Workshop 4:**  
Commercial Strategy

**Workshop 5:**  
Successful Delivery

**Early  
Business  
Case**

**Intermediate  
Business  
Case**

**Full  
Business  
Case**

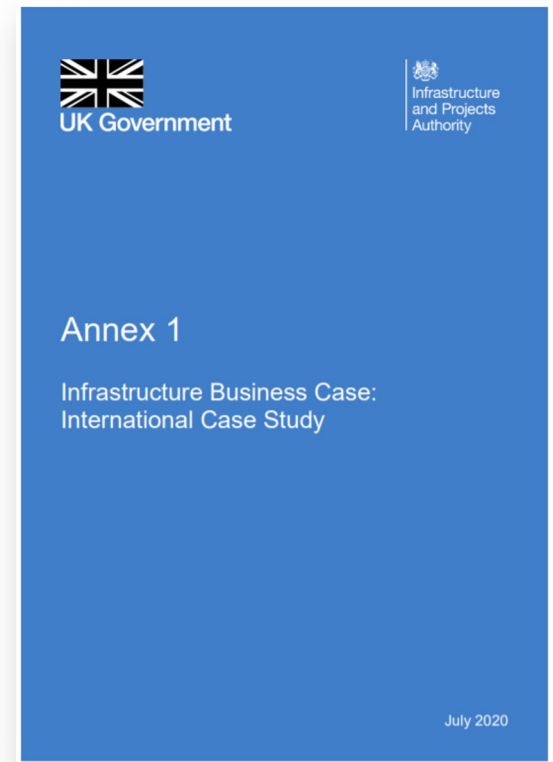
# A Case Study (Nirvana)

The Infrastructure and Projects Authority developed the Nirvana Light Rail Case Study, which illustrates how a business case for an infrastructure project, at the **Intermediate Business Case** stage, could look.

It forms part of a suite of products including:

- IPA's Infrastructure Business Case: International Guidance (the "Guidance");
- Workshops – see Schedule 2 of the Guidance, and
- On-line training materials.

It is designed to be read alongside the Guidance – to illustrate the various actions needed to develop a business using the 5 Case Model approach. References to Actions are to the 45 Actions set out in the Guidance.



# The Guidance and the Training Course



## International Scope

Developed for the international infrastructure market by the Infrastructure and Projects Authority (IPA), part of the UK Government (<https://www.gov.uk/government/organisations/infrastructure-and-projects-authority>)



## G20 Principles

The Guidance is fully aligned with the five G20 Principles for the Infrastructure Project Preparation Phase (and include sustainable development and gender and social inclusion)



## Based on 5 case Guidance

This course and exam are based on IPA's *Infrastructure Business Case: international Guidance* (the "Guidance") published by HM Treasury in February 2022 \*



## Integrated with Best Practice

Part of a wider family best practice guidance e.g. HM Treasury's *Green Book* and *Guidance on Public Sector Business Cases Using the Five Case Model*



## Templates and Case Study

The Guidance includes templates and an example case study for your reference \*



## Use in Programmes

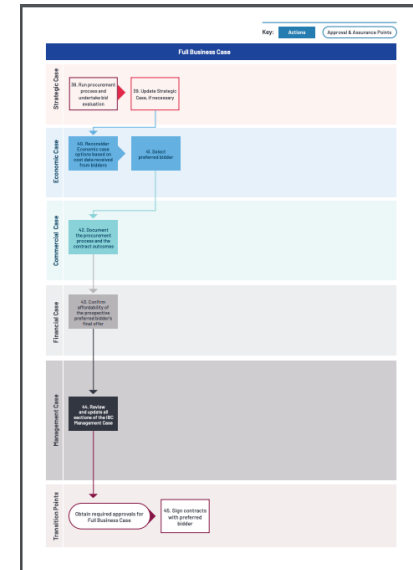
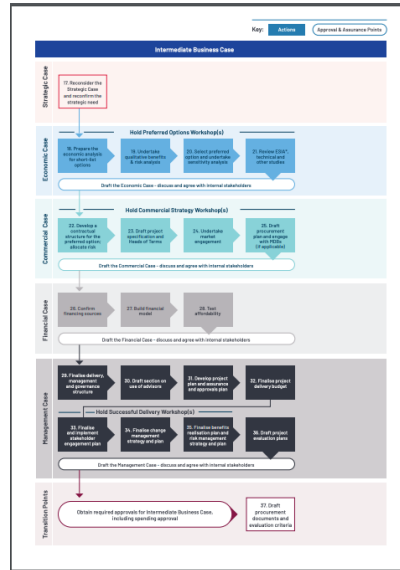
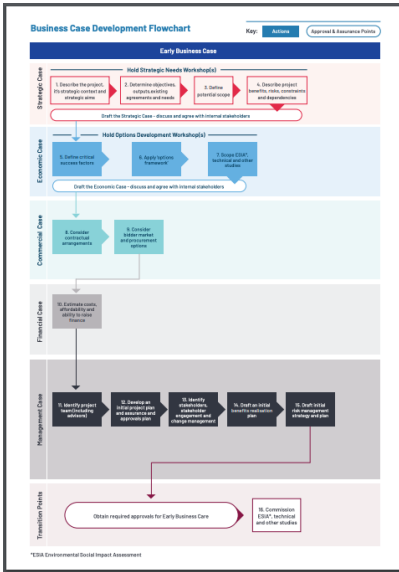
Although the IPA Guidance focuses on infrastructure projects, it is also intended for use in programme planning. The UK has a family of "5 case model" guidance - but the guidance used in this training is specifically adapted for infrastructure \*

\*

([https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1062669/Infrastructure\\_Business\\_Case\\_International\\_Guidance.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1062669/Infrastructure_Business_Case_International_Guidance.pdf))

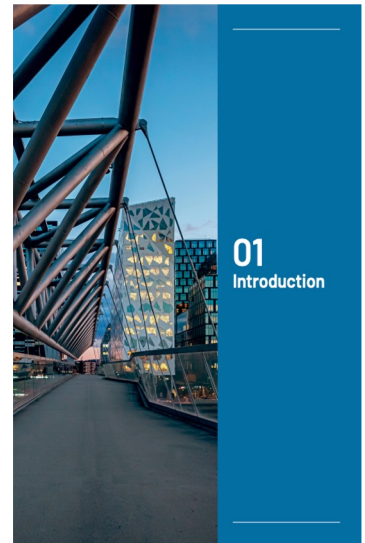


# Summary flow charts for each stage

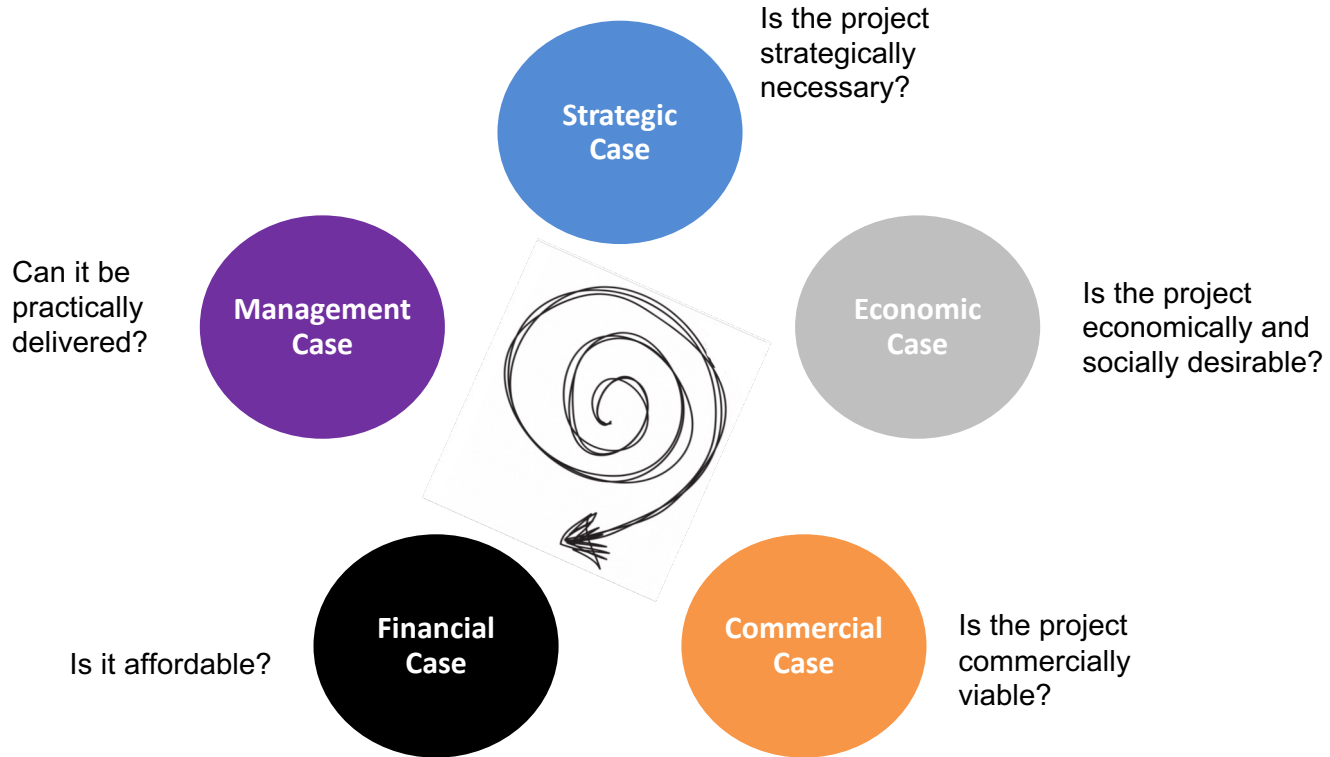


# The Key Principles

5 case model IIL USA

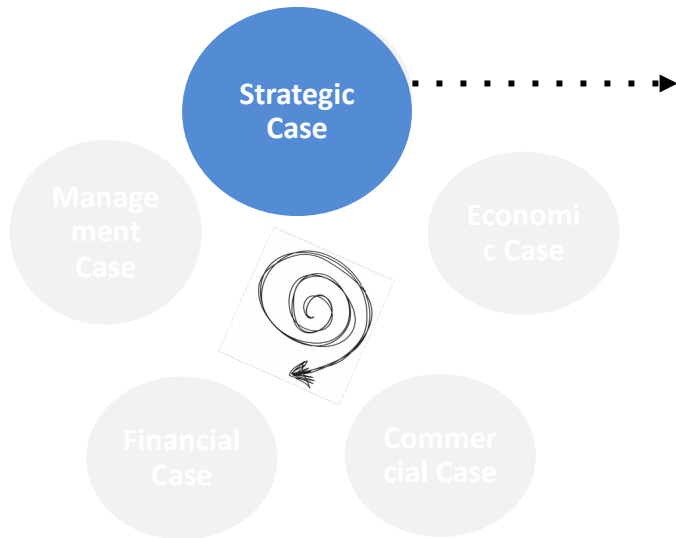


# The 5 Case Model asks five key questions:



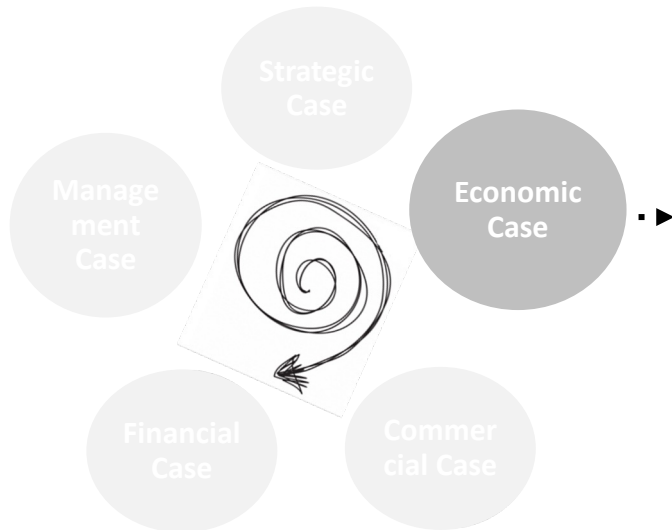
## Is there a strategic need for the project?

- Project rationale
- Fit with wider policy/strategy
- Sets scope and boundaries
- Clear project objectives
- Summarises benefits, risks, constraints, and dependencies
- Clear statement on environmental and social sustainability



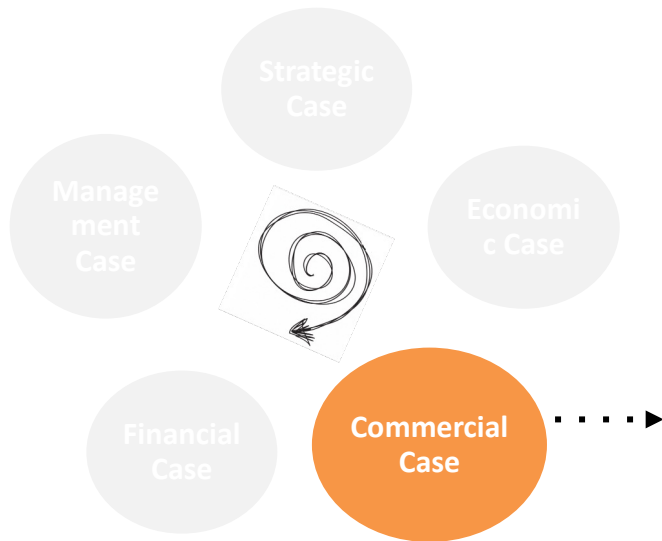
## Is the project economically and socially desirable?

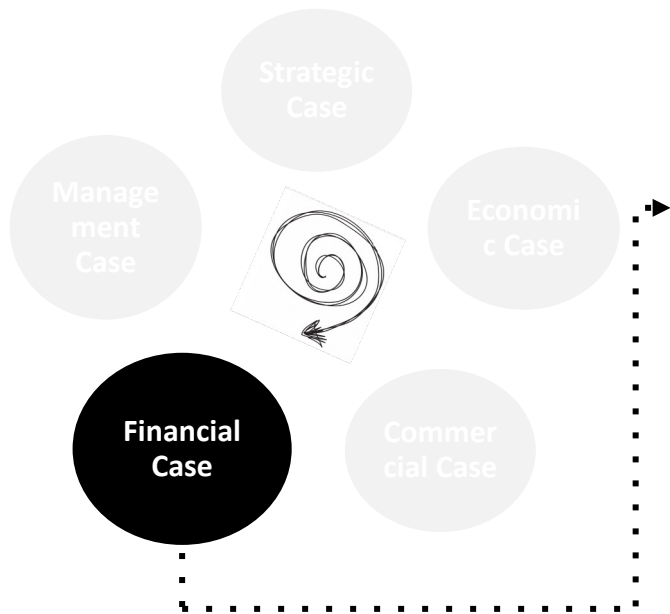
- **Choice** – a wide range of options has been considered
- **The preferred option delivers value for money** and represents the best balance of costs, benefits, dis-benefits and risks
- Opportunity cost: the art of the 'good enough'



## Is the project commercially viable?

- Demonstrates the supply side can **deliver requirements** on an efficient market basis
- Details the **procurement strategy**
- Sets out the (potential) Deal and proposed **contract structure** and **allocation of risk**
- Sets out how social aspects can be integrated at specific points across the procurement cycle



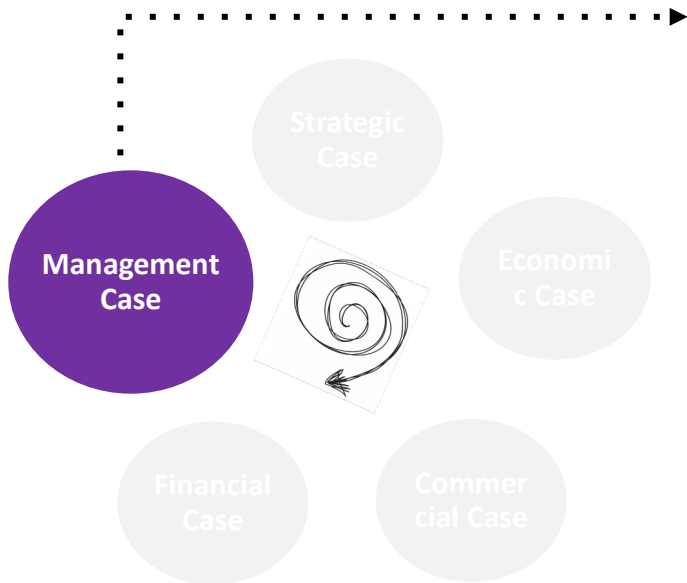


## Is the project affordable?

- **Affordability** – are capital and operating costs affordable? Has allowance been made for risk management? Have allowances for E&S sustainability been taken seriously and integrated into the budget?
- **Funding** – agreed sources of funding and support

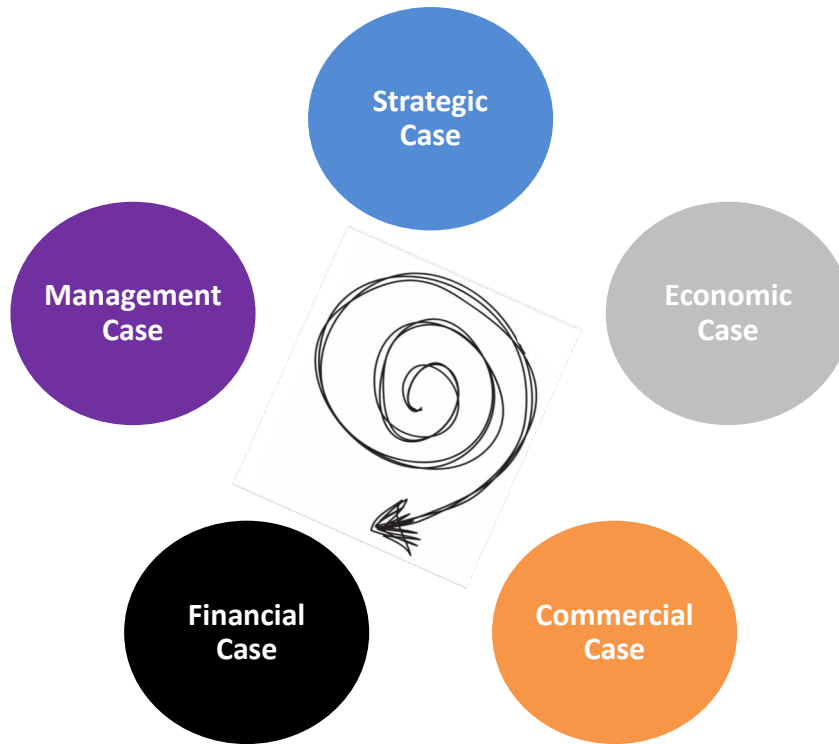
## Can the project be practically delivered?

- **Delivery** – governance structures, plans and resources are in place for successful implementation and post evaluation
- **Plans** for stakeholder engagement, risk management and benefits realisation, including how sustainability should be integrated into the governance structure



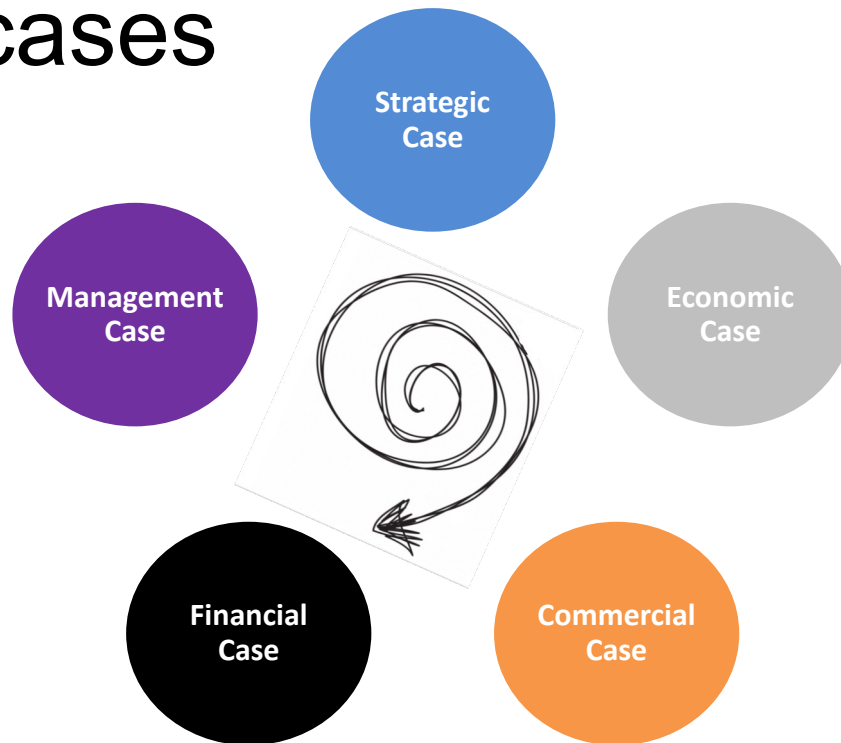


## The five questions are:



1. Is there a **strategic need** for the project?
2. Is the project **economically and socially desirable**?
3. Is the project **commercially viable**?
4. Is the project **affordable**?
5. Can the project be **practically delivered**?

# Environmental considerations are mainstreamed throughout the five cases



1. What is the project's link to **sustainable development goals**?
2. Is the project **economically and socially desirable**?
3. Can the market deliver the project **sustainably and with due care to social inclusion**?
4. Can the project draw on relevant **green finance** options?
5. How will the project report against expected **environmental and social benefits**? What about risks?

## Business case: large\* projects

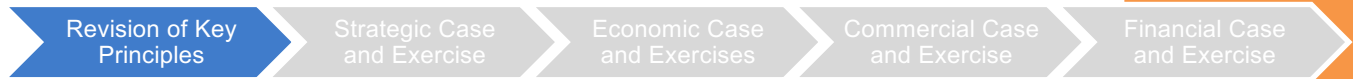


**Single business case typically developed in three stages**

**With the help of 5 workshops to help develop thinking at 5 key points: Strategic needs, Options Development. Preferred option, Commercial strategy, Delivery (Guidance Schedule 2).**

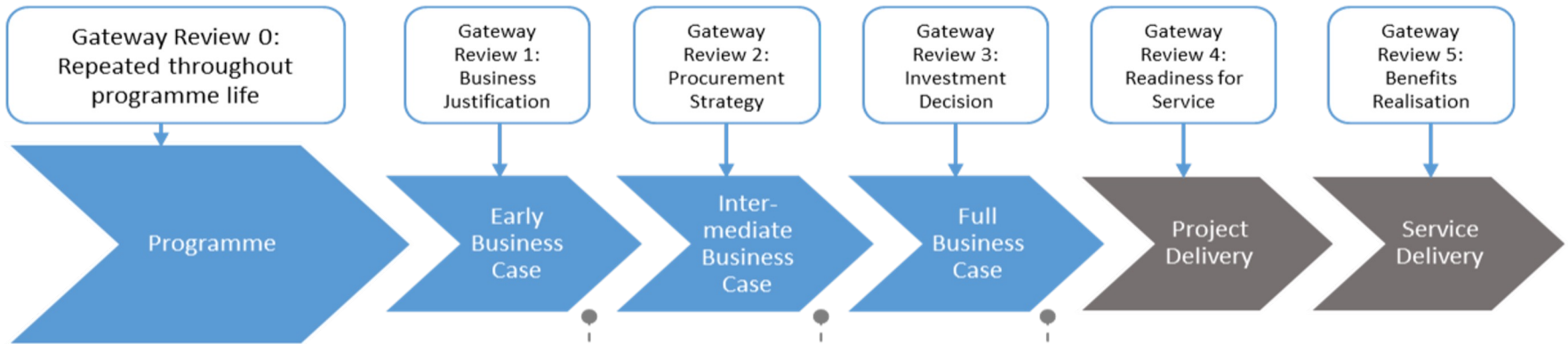
\*Large is generally defined as >£2 million project value

N.B. In the UK, the 5 case approach is used for programmes and policies as well as projects.

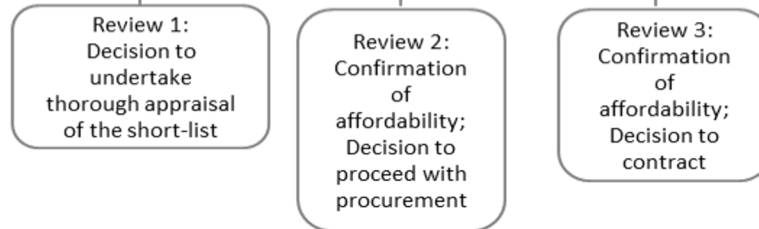


# Assurance and approval wrap

## Assurance



## Approval



# Available Training - APMG

- Overview of the Five Case Model
- Developing the Strategic Case
- Developing the Economic Case
- Developing the Commercial Case
- Developing the Financial Case
- Developing the Management Case



## Foundation level

## Practitioner level

- ❑ A set of "plain vanilla" training sides has been produced, along with syllabus etc
- ❑ APMG Training available to become accredited trainers for the new guidance

# Accreditation



# ATO & Trainer Accreditation

The usual ATO eligibility requirements apply.

Infrastructure Business Cases: New trainer eligibility requirements:

1. Have 2 years' experience of working with business cases.
2. Have passed the IBC Practitioner exam with a score of 66% or more (53 marks out of 80)
3. Undergo a full APMG Trainer Assessment

# APMG-accredited BBC trainers

Requirements for trainers already accredited for Better Business Cases:

1. The trainer must hold current Better Business Cases trainer/facilitator accreditation with APMG.
2. The trainer must pass the Infrastructure Business Cases Foundation exam
3. The trainer must pass the Infrastructure Business Cases Practitioner exam with an elevated score of 66% or more (53 out of 80). Self-study is permitted.
4. A product knowledge interview is NOT required.

This provides a faster route to entry for some existing APMG-accredited trainers.





# APMG Examinations and Fees

Currency	Foundation	Practitioner
GBP	£111	£140
Euro	€156	€202
USD	\$182	\$231
AUD	\$200	\$358
CNY	¥1,044	¥1,741
ZAR	R2,390	R3,027
DKK	Kr.1,162	Kr.1,495
INR	₹10,510	₹13,312





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## Questions

Was it a success?

Which countries are now using this?

Do you want training?

Do you want to be a trainer

Q and A

Infrastructure Business Case:  
International Guidance





James.ballingall@ipa.gov.uk

