



SIP/2009-WP/10
Business case

Introduction to Business Case

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**Workshop on the Development of Business Case
for the Implementation of CNS/ATM Systems
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What is a business case?



Definitions

- A tool supporting planning and decision-making that can be used by public as well as private entities
- For a public entity, a business case is a substantiated argument for a public project, a policy or a program proposal requiring a resource allocation and/or investment, often including a financial commitment;
- For a private entity, a business case can be developed to assist decisions on capital investment, product/service development, changes to business processes, contracts, special pricing, partnerships, etc.



Other definitions ...

- “A 'business case' is a form of advice to executive decision-makers. It is a substantiated argument for a project, policy or program proposal requiring a resource investment, often including a financial commitment.”¹

¹ The Government of New South Wales, Australia,
“Business case guidelines”



Other definitions ...

- “A management tool that supports planning and decision-making for an investment by positioning the investment decision in the context of business objectives. The business case is a proposal and provides an analysis of all the costs, benefits and risks associated with the proposed investment and offers reasonable alternatives.”¹
- “Before making a final decision to proceed with project, management needs to satisfy itself that three basic questions have been properly answered:
 - Why are we doing this?
 - What will it cost?
 - What business value do we expect to achieve?”¹

¹ The Government of Alberta, Canada, “A cost benefit assessment framework for information technology projects”



Other definitions ...

- “A multi-purpose document that generates the support and participation needed to turn an idea into reality.”¹
- “It explains what the idea, problem, or opportunity is about, how and who it will impact, what others are doing, each of the alternatives, the associated impacts, risks and cost/benefit of each alternative, and makes recommendations.”¹

¹ The Government of Alberta, Canada, “Business case usage guidelines”



Other definitions...

- “A decision support and planning tool that projects the likely financial results and other business consequences of an action.”



Other definitions

- “A document that defines the proposal, lays out its objectives, deliverables, estimated cost and effort, and scope”
 - Deliverable: any measurable, tangible, verifiable outcome, result or event that must be produced to respond to a certain need.
 - Scope: a description of the agreed on work to be completed during project execution. This description will specify the deliverables.



What is the difference between a business case and a business plan?

- **A business case:**
 - is specific to a project, a policy or a program proposal, and
 - covers the lifecycle of the proposal;
- **A business plan**
 - normally covers an entire organization or enterprise, and
 - is limited in time (typically 3 to 5 years)



A business case is not:

- **a non-value adding external requirement,**
- **a routine chore, or**
- **a means to validate an idea at all costs**



**Who is the
target audience of a
business case?**



Target audience

- **Decision makers**
 - **Government (national, local, etc.)**
 - **Leadership, management and shareholders of public or private enterprises**
 - **Funding sources including financial institutions**
- **Partners and stakeholders: organizations and/or individuals that are either involved, provide input, or have an interest in or expectations from the proposal.**
- **The public**



What are their needs and concerns? ...

➤ Decision makers

- Need for and/or opportunity of the proposal
- Alignment with general policy, objectives and strategy
- Priority in the allocation of limited resources
- Effectiveness and efficiency

➤ Partners and stakeholders

- That they are consulted on any proposal that might them
- That the proposal does not unduly affect them negatively
- That they are compensated for any effect



What are their needs and concerns?

- The public
 - Level and quality of service provided
 - Community benefits
 - Health
 - Safety
 - Security
 - Environment



Why do we need a business case?

- **To convince the target audience:**
 - of the need for the proposal
 - of the feasibility of the proposal
 - that the proposal is cost effective and beneficial
 - that the proposal is financially viable
 - that the risks involved are manageable
- **To be able to prioritize proposals**



Other uses of a business case

- Helps determine the strengths and weaknesses of a proposal in a systematic and objective manner
- Serves as a tool to test the validity of an idea before putting the case to others



When do we need a business case? ...

- For every project, policy or program proposal, except when the project has to be implemented at any cost and regardless of the risks involved
- Particularly needed when:
 - reluctance to the proposal is foreseen;
 - the proposal is expected to have a significant impact on either internal infrastructure arrangements or the delivery of services;
 - the proposal brings substantial change in the way things are done and/or will require a significant allocation or reallocation of resources.



When do we need a business case?

- The business case is a dynamic document
- As time passes, situations change and new information is available
- The business case needs to be updated
- The regular update may last for the lifecycle of the project proposal



Business case complexity and resources required

- The complexity of a business case and time needed to develop it varies with the nature of the proposal;
- In some cases, the business case may take several months to develop;
- It may even be necessary to initiate a trial or pilot project to test the feasibility of the proposal



Business case model outline ...

- **Executive summary**
- **The need**
- **The proposed project**
 - **Project scope:**
 - **Project purpose**
 - **Planned outcome(s)/deliverable(s)**
 - **Project description**
 - **Proposed timeframe and milestones**



Business case model outline ...

- **Implementation plan**
 - Project management arrangements
 - Internal change management and training
 - External communications and issues management strategy
 - Marketing
 - Quality management
 - Procurement strategy
 - Benefits realization
 - Post-project management
 - Project evaluation and post-implementation review
- **External funding arrangements**



Business case model outline ...

- **Assessment of options**
 - **Identification of options**
 - **Economic appraisal**
 - **Cost-benefit analysis**
 - » Net Present Value approach
 - » Snapshot approach
 - » Cost benefit ratio
 - **Cost effectiveness analysis**
 - **Least cost analysis**
 - **Pay-off period approach**



Business case model outline

- **Financial appraisal**
 - Return On Investment (ROI)
 - Net Present Value (Discounted Cash Flow)
- **Sensitivity analysis**
- **Risk analysis and risk management**



Robust business case



Impediments to a robust business case

- **Insufficient or unconvincing argument for the proposal;**
- **Ambiguous or unacceptable option assessment methodology;**
- **Unreliable input data;**
- **Other priorities take precedence.**



Advice for a robust business case

- **Thorough research**
- **Objectivity, rigor and logical argument**
- **Clarity**
- **Completeness**



Project classification

- Replacement projects
- Cost reduction projects
- Safety and environmental projects
- Expansion projects



Examples of projects

- Infrastructure projects (roads, bridges, airports, factories);
- Information technology and telecommunication projects;
- Major policy reform proposals.



Examples of business cases

- **Project proposal**
- **Funding submission**
- **Feasibility study**
- **Value management study**



Business case for the implementation of CNS/ATM systems



Options for the implementation of CNS/ATM systems ...

- The planning of air navigation systems, including CNS/ATM, has to respond to the identified operational requirements and ATM objectives
- Existence of a multitude of options that achieve these goals:
 - Operational options
 - Technical options
 - Institutional options
 - Financial options



Options for the implementation of CNS/ATM systems

- Decision makers need to be able to compare implementation options, rank them and choose among them
- What type of criteria?
 - Operational
 - Technical
 - Economic
 - Financial



Content of a business case ...

- A business case sets out the context of the problem or situation being addressed
- It provides a thorough description of the proposal, the rationale for its selection among other alternative options and a comprehensive assessment of its benefits, costs and risks
- It takes cost benefit analysis a step further



Content of a business case

- **The main sections of a business case are:**
 - **Description of the proposal**
 - **Identification of the stakeholders / partners**
 - **Cost-benefit analysis**
 - **Financial analysis**
 - **Risk analysis and management**



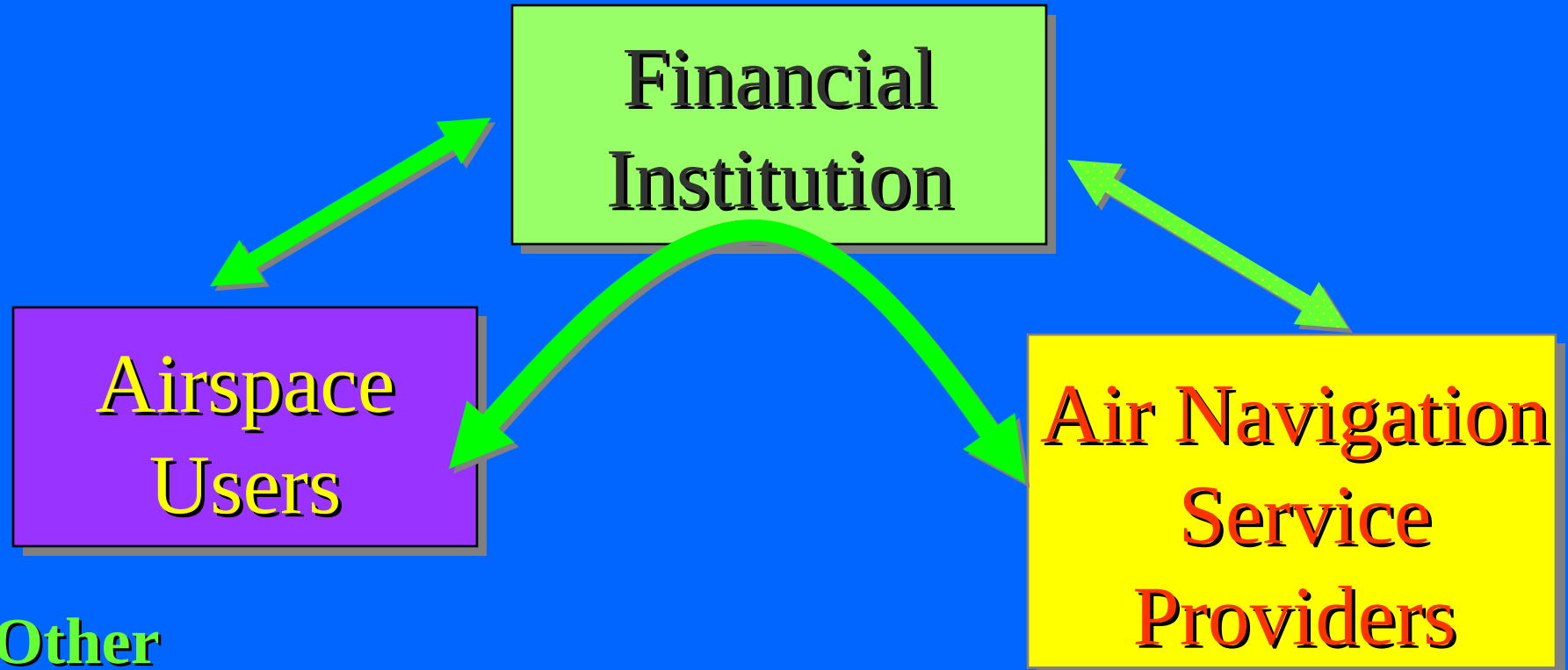
Need for a business case for CNS/ATM

- **Slow implementation of CNS/ATM systems**
- **Reluctance towards adoption of new technology**
- **Disagreement among stakeholders**
- **Lack of funding**



Partners/Stakeholders

- Need to identify all partners/stakeholders
- Costs, benefits and risks should be identified and evaluated for each partner/stakeholder
- Integrated business case



Other

A/C manufacturers

ATM Equipment
suppliers

Major Stakeholders



Analysis Process

Provider/User

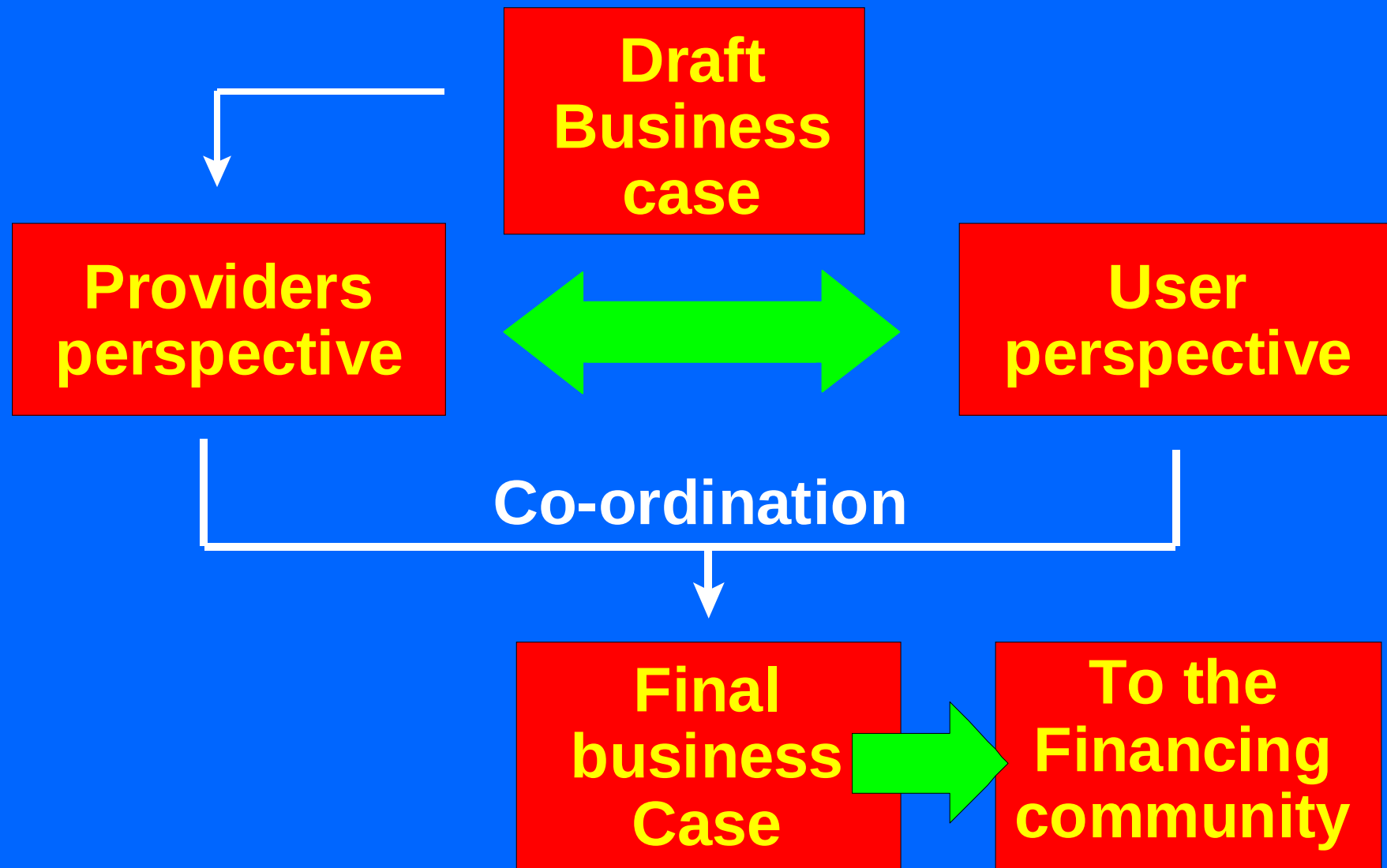


Business case

- State
- Sub-regional
- Regional



Stages of the Business Case





Prerequisites ...

- Homogeneous ATM area clearly defined (State/service provider, group of States, subregion, region, etc.)
- Consultation and coordination between service providers with adjacent areas of responsibility
- Consensus among stakeholders/partners on the need for the new technology



Prerequisites ...

- Availability of the new technology's facilities and equipment
- Expected costs of equipment and operations established with an acceptable margin of uncertainty
- Recognition and awareness of international cost recovery policy for air navigation services (ICAO's Policies on Charges for Airports and Air Navigation Services, adopted by the Council in December 2000 and published as Doc 9082/6)



Prerequisites

- Existence of an effective cost and revenue accounting system
- Sound and agreed methodology for determining the cost basis for charges
- An effective mechanism for the collection of charges



Data requirements ...

➤ Traffic

- Traffic densities and traffic flows
- Traffic forecasts

➤ Current configuration

- Cost of operations of the service providers
- Inventory and costs of current air navigation systems' equipment and facilities:
 - Communications (Air/Ground, Ground/Ground and avionics)
 - Navigation (En Route, Terminal and Approach and Avionics)
 - Surveillance (En route, Terminal and avionics)
 - ATM
- Level of user charges



Data requirements

- **Future configuration**
 - **Operational requirements**
 - **Cost of new air navigation systems' equipment and facilities:**
 - **Communications (Air/Ground, Ground/Ground and avionics)**
 - **Navigation (En Route, Terminal and Approach and Avionics)**
 - **Surveillance (En route, Terminal and avionics)**
 - **ATM**
- **Transition pattern and cost of transition**
- **Facilities, equipment and avionics costs**



Main impediments

- Lack of coordination and consultation among service providers with adjacent areas of responsibility
- Lack of coordination and cooperation among stakeholders
- Non-homogeneity of areas selected and redundancy of facilities and equipment
- Ambiguous institutional or legal format
- Lack of financial guarantees
- Unavailability or inaccuracy of data required

