



DEFENCE
SIMULATION
PLAN
PART 1

DEFENCE SIMULATION PLAN

PART 1 – STRATEGIES, AIMS, & RESULT AREAS

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INTRODUCTION TO THE DEFENCE SIMULATION PLAN

AUTHORITY

1. The Defence Simulation Plan has been issued under the authority of the Chief Information Officer following endorsement by the Defence Simulation Forum (DSF).

CONTEXT

2. The Defence Simulation Policy (DI(G) OPS 42-1) states the Defence vision for simulation as follows:

**Defence exploits simulation
to develop, train for, prepare for and test military options for Government
wherever it can enhance capability, save resources or reduce risk.**

3. In practice this will mean that:

- a. simulation will be employed and managed effectively,
- b. the profile of simulation in Defence will rise significantly,
- c. simulation will become integral to the way Defence does business,
- d. simulations will be combined to address broader issues than they can address individually, and
- e. the military options which are the focus of simulation effort will be those that result from both contemporary and future warfighting concepts.

4. Six Strategies to be pursued in order to implement this Vision are also in the Policy. They are:

- a. manage simulations effectively,
- b. increase the use of simulation in Defence processes,
- c. combine simulations for greater benefit,
- d. ensure adequate personnel,
- e. ensure simulation life cycle support, and
- f. secure access to data to support simulations.

5. The relationship of each Strategy to Defence's simulation capability is shown in Figure 1.

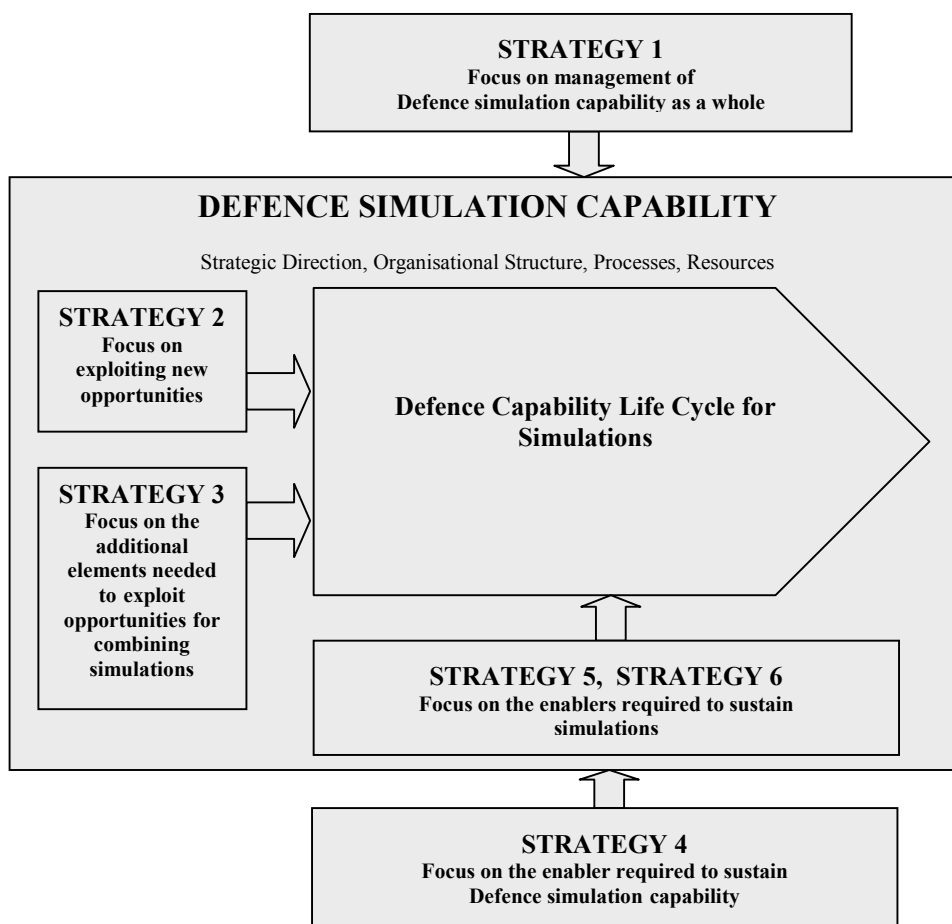


Figure 1: relationship of the strategies to Defence's simulation capability

PURPOSE

6. This Defence Simulation Plan responds to the need identified in the Policy to describe:
 - a. the individual tasks necessary to implement the strategies described in the Policy,
 - b. the interdependencies and interrelationships between those tasks, and
 - c. the agencies responsible for executing those tasks.
7. The Policy further identifies the need for:
 - a. subordinate simulation policies and plans for Defence Groups, to detail how the requirements of the Policy, the Defence Simulation Plan, and the simulation requirements specific to that Group are to be implemented; and
 - b. technical plans and similar documents, to expand the detailed development of specific tasks.
- 8. The purpose of this Defence Simulation Plan is, therefore, to provide a coordinating link between the Defence Simulation Policy and the suite of specific tasks and activities required to implement the Policy.**
9. The Defence Simulation Plan has a ten year time horizon. A "Resourcing Supplement" to the Plan addressing resource allocation details is being produced in collaboration with the Defence Simulation Forum for formal release early in 2003 (see Section 8).

IMPLEMENTATION

10. The Defence Simulation Plan is divided into two parts. Part 1 – this document – addresses each Strategy in turn, explains the respective aim for it, and identifies Result Areas which are key to its implementation. Each Result Area provides a manageable structure and rationale for the development of specific tasks and therefore has its own specific objective.

11. Tasks under each Result Area fall into two categories, namely:

- a. those which apply across a range of Defence simulation activities, and
- b. those which are specific to a particular Defence Group.

12. Part 2 of the Plan details the tasks which apply across a range of Defence simulation activities. ADSO has broad responsibility for the development and maintenance of Part 2.

13. Each Defence Group is to detail, within its own policy and plan framework, the tasks and activities which are specific to the requirements of that Group. Defence Groups are to use the statements of higher level intentions and objectives in Part 1 of this Plan to guide the definition of tasks and activities to be undertaken within Defence Groups.

14. Figure 2 depicts the Defence Simulation Plan within the hierarchy of Defence simulation policy and planning documentation.

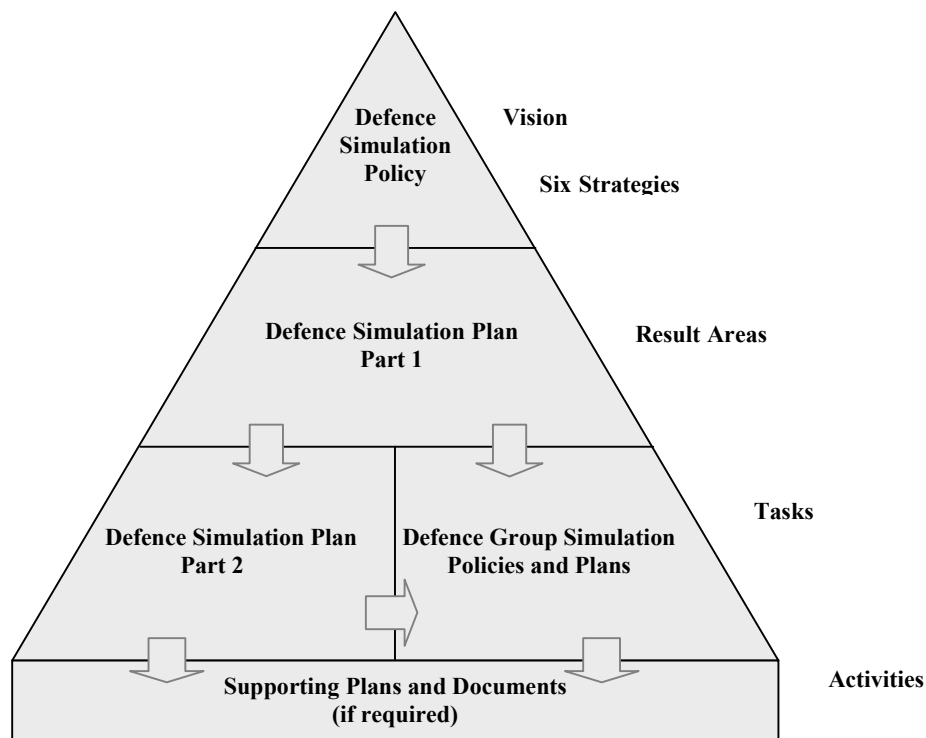


Figure 2: coordination of simulation policy and planning across Defence.

15. The rationale for the approach to implementation of this Plan is described in section 8.

16. Tasks generated by the Defence Simulation Plan will be resourced as follows:

- a. Tasks which apply to an individual Defence Group will be resourced by that Group.
- b. ADSO has a central role in the resourcing of tasks which apply to two or more Groups. That role includes advice, securing sponsorship from other funding sources, and similar activities in addition to direct funding.

ASSESSING EFFECTIVENESS

17. The Defence Simulation Plan develops the tasks necessary to achieve Defence's vision for simulation. Assessing effectiveness in this process requires a series of judgements, namely:

- a. whether the Result Areas within each Strategy are achieving the aim of that Strategy, and
- b. whether the tasks within a Result Area are achieving the objective of that Result Area.

This sequence is illustrated in Figure 3, while details of the assessment system are provided in Section 7.

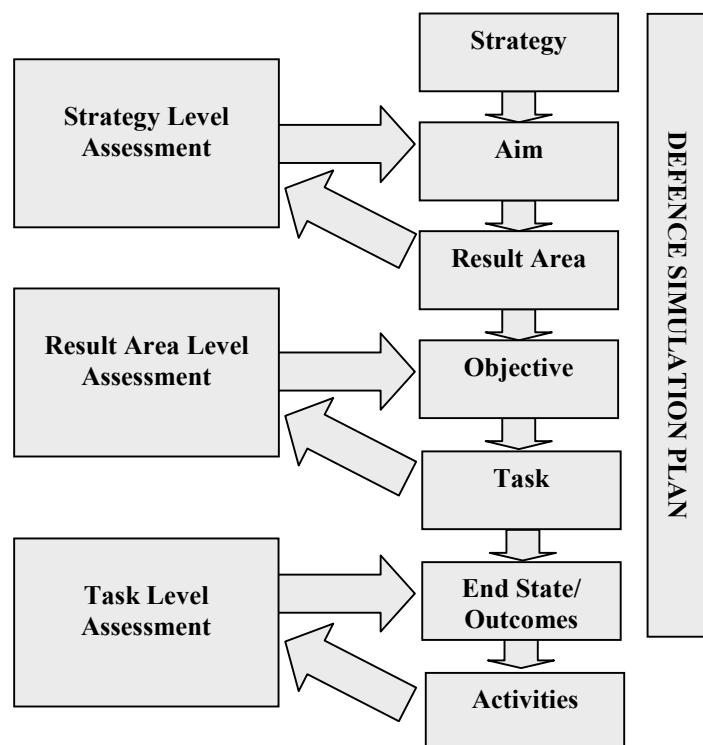


Figure 3: sequence of assessment

AMENDMENT

18. **Defence Simulation Plan Part 1.** Part 1 of the Defence Simulation Plan is to be reviewed one year after initial issue. Further reviews are to occur one year after completion of the previous review. Minor amendments to Part 1 may be approved by the DSF. Significant amendments require approval by CIO following endorsement by the DSF.

19. **Defence Simulation Plan Part 2.** Part 2 of the Defence Simulation Plan is also to be reviewed in conjunction with Part 1, but other amendments may be made at any time. Amendments to Part 2 require approval by the DSF.

STRATEGY 1: MANAGE SIMULATIONS EFFECTIVELY

POLICY REQUIREMENT

“Simulations often represent a considerable investment in dollar and workforce terms. Effective management is necessary in order to secure and maintain the maximum advantage available from the investment. Defence will implement measures to increase the effectiveness of simulations through improvements in the management structure and processes for simulation requirement definition, acquisition, and implementation phases.” (Defence Simulation Policy para 25.)

CONSIDERATIONS

1. The intention of this strategy is to ensure that Defence manages its current and future simulations effectively so as to extract the maximum benefit from them. However, it is not sufficient to manage individual simulations: Defence simulation capability must be managed as a whole.
2. Particular considerations which will shape the tasks under this Strategy are as follows:
 - a. Defence’s simulation management effort must focus on the contribution that simulation makes to the provision of military options to government, in terms of enhancing capability, saving resources, and reducing risk.
 - b. There is value in dividing the management function according to the phases of the Capability Life Cycle. However, the effective management of simulation systems also requires a ‘Defence-wide’ management view.

AIM

Defence manages simulation effectively, to maximise the contribution of simulation to the provision of military options to Government.

RESULT AREAS – STRATEGY 1

Result Area 1.1 – Providing Strategic Direction

3. This Result Area encompasses the development of long-term visions for the use of simulation in Defence, the translation of vision into policy, and the implementation of policy through plans, tasks and activities.

4. **Objective:** Defence uses a practical approach which identifies the strategic direction for simulation, and articulates the tasks and activities required to achieve it.

Result Area 1.2 – Advancing the Management Structure

5. The focus of this Result Area is the organisational structure required to ensure effective and coherent management of simulation within Groups and across Defence. This includes the established elements such as Defence Group simulation agencies, and the more transient elements such as committees and working groups.

6. **Objective:** Defence has in place the management structure necessary to ensure that its vision for simulation is realised.

Result Area 1.3 – Using Effective Processes

7. This Result Area emphasises the need to align all processes applied to simulation management with Defence's vision for simulation. Initiatives which are also relevant to this Result Area include those which:

- a. coordinate simulation activities across Defence and with external organisations, in order to reduce duplicated or wasted effort;
- b. foster collaboration within and outside Defence, so that activities in one area can produce a broader benefit.

8. **Objective:** Effective processes consistent with Defence's simulation vision are employed in the management of Defence's simulation capability.

Result Area 1.4 – Resourcing Simulation Appropriately

9. This Result Area highlights the fact that suitable resource commitment, across all elements of Defence's simulation activities, is required to enable the achievement of Defence's vision for simulation.

10. **Objective:** Defence recognises that simulation is a key element of its overall capability, and resources it accordingly.

STRATEGY 2: INCREASE THE USE OF SIMULATION IN DEFENCE PROCESSES

POLICY REQUIREMENT

“Defence will use simulation where it can enhance capability, save resources, or reduce risk. An active program is required to identify candidate opportunities for using simulation, and to evaluate the viability of doing so. For example, training can be enhanced through the use of collective and mission-level simulations. Course of action development may use simulation based Decision Support Systems and war gaming to analyse and choose the optimum course of action. Materiel acquisitions can be analysed and supported by the use of simulation. Intelligence work may be assisted by simulation of the key elements of overseas forces. Through combining these efforts with others the military options for Government will be developed and supported by simulation.” (Defence Simulation Policy para 26.)

CONSIDERATIONS

1. This Strategy is based on two premises, as follows:
 - a. Full exploitation of simulation requires Defence to deliberately and actively seek and evaluate new simulation opportunities.
 - b. Full exploitation of simulation requires that there are effective ways to pursue the opportunities identified.
2. Particular considerations which will shape tasks under this Strategy are as follows:
 - a. A key prerequisite is a general awareness of simulation’s potential and limitations among all Defence members.
 - b. A proposal for a new simulation – or to combine discrete simulations – must be assessed in terms of enhancement of capability, saving of resources, and reduction of risk. Technical feasibility is not, in itself, sufficient justification.
 - c. New opportunities need to be sought in terms of both the warfighting outputs of Defence, and the enabling business processes of the Department which contribute to those outputs.
 - d. Successful exploitation of new simulation opportunities may require innovative approaches to overcome inappropriate barriers to the uptake of simulation, for example in areas such as resourcing.
 - e. The successful exploitation of new and existing technology will help create opportunities to advance the use of simulation in Defence processes.

AIM

Defence has an active and ongoing program which progresses new opportunities for simulation and reduces obstacles to the uptake of simulation in Defence.

RESULT AREAS – STRATEGY 2

Result Area 2.1 – Promoting Awareness and Acceptance

3. This Result Area reinforces that it is people who will advance the use of simulation in Defence. New opportunities for simulation will only be recognised if people are aware of its potential, and will only be realised if people accept that simulation has a significant role in enhancing capability, saving resources, and reducing risk.

4. **Objective:** All Defence members have suitable awareness of the opportunities and limitations of simulation, and accept simulation as a key element of Defence capability.

Result Area 2.2 – Exploiting New Opportunities for Resourcing

5. New simulation opportunities typically require an initial investment in order to achieve a longer-term return. This Result Area addresses the need for innovative approaches across Defence to successfully resource this transition in the face of competing priorities.

6. **Objective:** Defence has successful mechanisms to resource the transition to new, simulation-supported, ways of doing business.

Result Area 2.3 – Progressing New Simulation Opportunities

7. This Result Area highlights the potential contribution of simulation to all application areas across Defence.

8. **Objective:** Defence has an active and ongoing program which identifies and pursues new opportunities for simulation.

Result Area 2.4 – Exploiting New Technology

9. Technological advance can accelerate the development of new simulation applications. There is merit both in sponsoring research into new technology, and in assessing the value to Defence of technology which already exists or is emerging from elsewhere. These initiatives may involve effort within Defence as well as within academia and industry.

10. **Objective:** Defence trials existing and emerging technology and develops new technology to support its simulation objectives.

STRATEGY 3: COMBINE SIMULATIONS FOR GREATER BENEFIT

POLICY REQUIREMENT

“As simulation becomes a normal part of the Defence way of doing business certain simulations will be combined to address issues that are broader or at a higher level than one simulation on its own may be able to provide. Through combining simulation practice and outcomes, higher level analysis and collective training to support military options for government will be provided. Note that in this context, simulations may be combined by direct physical link or by some other means of information transfer. Further, the combining of simulations is to be subject to assessment by the same six criteria as are individual simulations. ” (Defence Simulation Policy para 27.)

CONSIDERATIONS

1. This strategy addresses the combination of selected simulations, each of which exists for its own discrete purpose, into a collection which satisfies a higher purpose. New opportunities for combining simulations will be identified through tasks under Strategy 2: the additional considerations necessary to implement these opportunities are addressed here in Strategy 3.
2. Particular considerations which will shape tasks under this Strategy are as follows:
 - a. Simulations may be combined simply through the flow of information (where, for example, the result of one simulation forms a data element for another simulation), in addition to direct connection via networks.
 - b. Extracting meaningful results from collections of simulations implies that they need to have a consistent or compatible basis.

AIM

Defence has established a coherent system for combining simulations where there is benefit in doing so.

RESULT AREAS – STRATEGY 3

Result Area 3.1 – Designing the ‘Broad Scheme’

3. Tasks under Strategy 2 will identify, *inter alia*, opportunities to combine simulations. To achieve coherence across Defence, these proposals will need to be considered against a broader scheme. This Result Area addresses the need to establish that scheme.

4. **Objective:** Defence uses a process to establish and evolve a ‘broad scheme’ of combined simulations.

Result Area 3.2 – Mastering the Technical Aspects

5. This Result Area reinforces the importance of technical issues when combining simulations.

6. **Objective:** Defence has in place all the technical mechanisms required to allow simulations to be combined where there is benefit in doing so.

Result Area 3.3 – Developing the Management Aspects

7. Simulations which are combined into larger systems are often from disparate functional areas within Defence or allied nations. This Result Area highlights that these combined simulations may require new management approaches.

8. **Objective:** Defence has in place all the management mechanisms required to allow simulations to be combined and utilised effectively.

STRATEGY 4: ENSURE ADEQUATE PERSONNEL

POLICY REQUIREMENT

“A key requirement to enable Defence to achieve its vision is to have access to suitable personnel, at all levels, with an understanding of simulation, and how to use it to support the Defence mission. This expertise need not solely exist within Defence; Australian industry and academia need to be an integral part of this process so that they can support and enhance Defence’s capabilities. In turn, industry and academia need to be supported by Defence and informed of Defence requirements. Defence will identify and implement measures to ensure that suitably trained, qualified and experienced personnel are available to support simulation.” (Defence Simulation Policy para 28.)

CONSIDERATIONS

1. This Strategy envisages the development and management of simulation expertise within personnel to whom Defence has access, be they within the Department or external to it. In this context, ‘expertise’ is deliberately used to imply a greater level of understanding than the ‘awareness’ cultivated under Strategy 2.
2. Particular considerations which will shape tasks under this Strategy are as follows:
 - a. This strategy is consistent with general workforce planning requirements for Defence. Consequently, the prosecution of this strategy broadly falls within the responsibility of DPE. However, Defence Groups need to identify and plan to meet their own personnel requirements within the broad framework established by DPE.
 - b. Simulation expertise in the context of this strategy will require management:
 - (1) at the micro level by managing individual training, qualifications and experience; and
 - (2) at the macro level by managing the total body of expertise available to Defence.
 - c. Expertise requirements will vary according to an individual’s role as, for example, a user, a maintainer, a procurer, or a manager of simulation.
 - d. In terms of simulation expertise, Defence is a comparatively small organisation. Success in this area may well rely on cultivating and accessing expertise outside the organisation, in collaboration with external stakeholders.

AIM

Defence has access, when and where required, to personnel who are skilled in simulation.

RESULT AREAS – STRATEGY 4

Result Area 4.1 – Forecasting Future Personnel Needs

3. This Result Area recognises that all tasks under this strategy need to be guided by an accurate assessment of Defence's future personnel needs for simulation.
4. **Objective:** Defence uses a practical approach for forecasting future requirements for personnel with simulation expertise.

Result Area 4.2 – Developing Simulation Expertise

5. This Result Area ensures that forecast requirements influence specific personnel development activities to build simulation expertise.
6. **Objective:** Defence has an effective program which meets its requirements for personnel who are trained, qualified and experienced in simulation.

Result Area 4.3 – Managing Simulation Expertise

7. This Result Area recognises that the simulation expertise to which Defence requires access needs to be developed and maintained in a deliberate and coordinated manner.
8. **Objective:** Defence uses a structured and practical process for deploying and maintaining simulation expertise when and where it is required.

STRATEGY 5: ENSURE SIMULATION LIFE CYCLE SUPPORT

POLICY REQUIREMENT

“Like any capability, simulations require support throughout their life cycle. This support is required during the concept development, requirement definition, acquisition, in-service and disposal phases. It includes activities such as research, development, design, data provision, system integration, logistics support, maintenance, and upgrades. Support may be sourced from within Defence, or from industry, or from other public sector agencies. In some instances, provision of these services by Australian organisations will be desirable or essential. Defence will identify and implement measures to ensure adequate support for simulations throughout their life cycle.” (Defence Simulation Policy para 29.)

CONSIDERATIONS

1. This Strategy addresses the specific support functions required during particular phases of the simulation life cycle.
2. Establishing and maintaining these functions requires skilled people, but also involves procedures and processes, organisational issues, information, etc. Consequently, this Strategy is related to, but distinct from, Strategy 4.

AIM

Defence has access to all the support functions required to establish and maintain the effectiveness of simulations throughout their life.

RESULT AREAS – STRATEGY 5

Result Area 5.1 – Identifying Support Requirements

3. This Result Area highlights the need to first identify the functions required for simulation life cycle support. These support requirements will need to be reviewed as circumstances change to ensure Defence has appropriate support for its simulation capability.

4. **Objective:** Defence uses a practical approach which identifies the functions necessary to support its simulations through life.

Result Area 5.2 – Establishing Support Functions

5. Defence already has access to specific simulation support functions. This Result Area will establish the additional support functions identified in the previous Result Area

6. **Objective:** Defence has an effective program which establishes the functions necessary to support its simulations through life.

Result Area 5.3 – Maintaining Support Functions

7. Defence recognises that deliberate, conscious action is required to maintain the specific support functions to which it has access, both within and outside Defence, to ensure that its simulation capability is sustained.

8. **Objective:** Defence uses a structured process which maintains the functions necessary to support its simulations through life.

STRATEGY 6: SECURE ACCESS TO DATA TO SUPPORT SIMULATIONS

POLICY REQUIREMENT

“Access to adequate data is essential to support the development and through-life management of simulations. The data concerned includes not only data about the entities and elements of the natural environment which are being simulated, but also design, maintenance and similar data about the simulation itself. Defence will implement measures to ensure that it has access to, and where appropriate ownership of, data of the quality required to support approved simulation activities.” (Defence Simulation Policy para 30.)

CONSIDERATIONS

1. This strategy highlights the importance of data to both the development of new simulations, and to the management of their capability throughout their life.
2. Particular considerations which will shape tasks under this Strategy are as follows:
 - a. Data dealing with the development of new simulations can be thought of as ‘data for the simulation’, and includes geo-spatial data, environmental data, data about the equipment or entities being simulated, and data about an adversary.
 - b. Data dealing with the management of a simulation’s capability throughout its life can be thought of as ‘data about the simulation’, and includes design reports, maintenance manuals, user manuals, etc.
 - c. Though the two data types are typically used at different parts of a simulation’s life cycle, they are united by similar considerations of forecasting requirements, maintaining access, and minimising cost.
 - d. Issues relevant to this strategy include data availability, credibility, and integrity, as well as level of detail and the level of security required.

AIM

Defence has ready and cost-effective access to the data required to support simulations throughout their life cycle.

RESULT AREAS – STRATEGY 6

Result Area 6.1 – Forecasting Future Data Requirements

3. The data required for simulations, such as geo-spatial data, may have a long lead time. Similarly, data about a particular simulation may be required some time after the simulation has been introduced into service. This Result Area recognises that conscious planning action is required to ensure that data is available when it is needed.

4. **Objective:** Defence uses a practical approach which forecasts future simulation data requirements in a timely manner.

Result Area 6.2 – Addressing Fitness for Purpose of Data

5. A simple statement setting the standards for data quality across all the potential applications for simulation would be of limited value in itself. This Result Area establishes the requirement to manage data quality to ensure that user needs and the data selected are appropriately matched.

6. **Objective:** Defence data management activities ensure the data used for simulation is fit for purpose.

Result Area 6.3 – Establishing Data Access Mechanisms

7. As with other enablers, ownership of data – both for and about simulations – is not essential provided suitable access is available when required. However, there may be economic benefits in owning and sharing data for simulations, rather than paying for access to the same data several times.

8. **Objective:** Defence uses robust mechanisms for accessing data for simulations.

Result Area 6.4 – Maintaining Data Currency

9. Access to ‘static’ data is not sufficient for Defence’s purposes. Data requirements will evolve as the related simulation evolves. Changes in the real world need to be reflected, where appropriate, in the data Defence uses for its simulations. Furthermore, changes to the individual simulations Defence uses will necessitate changes to the data about those simulations.

10. **Objective:** Defence uses robust mechanisms for maintaining data currency, throughout the life of the dependent simulations.

ASSESSING EFFECTIVENESS

ASSESSMENT METHODOLOGY

1. The purpose of the assessment process is simply to determine whether a suite of initiatives is achieving the higher-order objective. Extending the concept outlined in the Introduction, the process requires a series of assessments, namely:

- a. whether the Result Areas within each Strategy are achieving the aim of that Strategy,
- b. whether the tasks within a Result Area are achieving the objective of that Result Area, and
- c. whether the activities undertaken as part of a task are achieving the end state required for that task.

2. There are a number of methods under the broad heading of performance measurement which are consistent with this purpose. They use a variety of terms, and can impose significant data collection overheads. To achieve the purpose of the assessment process simply and with minimum overhead, the method adopted for the Defence Simulation Plan is as follows:

- a. The distinction is drawn between measures which provide a particular value for some parameter, and indicators which provide a more general gauge of trends. Most of the initiatives described in this Plan do not relate to precise production-type activities where measures can be meaningfully made. Consequently, the assessment method is based on Key Performance Indicators.
- b. Some indicators relate to perceptions within the Defence community about a particular matter. They are included because perceptions can be as important as hard data in guiding further action for that particular area. They are not meant to suggest that effort should concentrate on the management of perceptions at the expense of management of the issues.
- c. The method includes statements about how each Performance Indicator should vary with time to illustrate improvement and/or progress.
- d. Assessments will be based on the judgment of DSF members and/or their staff. Judgments may be made using a simple four point assessment scale for example, or through a more elaborate process if required.
- e. The method described in Part 1 of this Plan addresses assessment at the Strategy and Result Area levels only. Assessment of the particular tasks described in Part 2 of the Plan are to be made as part of the execution of the particular task.
- f. Each indicator is aligned with a particular Strategy or Result Area. To avoid excessive lists of indicators, some elements of the respective aim or objective may not be addressed. There may also be interdependencies between indicators – a trend in one indicator may also reflect developments in another. These issues should not be allowed to detract from the basic function of the indicators, which is to provide some understanding of progress in a simple manner.
- g. The initial set of Key Performance Indicators may need to be developed as implementation of the Plan proceeds.

3. The Key Performance Indicators, and the focus question used to formulate them, are presented in Tables 1 and 2 overleaf.

KEY PERFORMANCE INDICATORS

Table 1 – Strategy Level Key Performance Indicators

STRATEGY	AIM	KEY PERFORMANCE INDICATORS What indicators will help determine if the Result Areas for this Strategy enable Defence to meet the Strategy aim?	TREND
1. Manage Simulations Effectively	Defence manages simulation effectively, to maximise the contribution of simulation to the provision of military options to Government.	<ul style="list-style-type: none"> • The degree of alignment of all simulation activities to the Defence Mission • The perception that simulation is an effective element of Defence capability. • The perception that simulation offers an appropriate return on investment. 	Increasing Improving Improving
2. Increase The Use Of Simulation In Defence Processes	Defence has an active and ongoing program which progresses new opportunities for simulation and reduces obstacles to the uptake of simulation in Defence.	<ul style="list-style-type: none"> • The degree of integration of simulation into Defence processes. • The number of identified simulation opportunities for which a solution is implemented. 	Increasing Increasing
3. Combine Simulations For Greater Benefit	Defence has established a coherent system for combining simulations where there is benefit in doing so.	<ul style="list-style-type: none"> • The degree to which valid proposals to combine simulations are accommodated within a ‘broad scheme’ • The degree to which the ‘broad scheme’ guides the development of proposals to combine simulations. • The degree to which the combining of simulations is enabled by existing infrastructure. 	Increasing Increasing Increasing
4. Ensure Adequate Personnel	Defence has access, when and where required, to personnel who are skilled in simulation.	<ul style="list-style-type: none"> • The gap between the expertise required and that which is currently available. • The cost/impact of alternative arrangements to cover expertise shortfalls. • The activities delayed/stopped due to inadequate personnel. 	Decreasing Decreasing Decreasing
5. Ensure Simulation Life Cycle Support	Defence has access to all the support functions required to establish and maintain the effectiveness of simulations throughout their life.	<ul style="list-style-type: none"> • The gap between required support requirements and those in place. • The cost/impact of alternative arrangements to cover shortfalls in support functions. • The activities delayed/stopped due to inadequate support functions. 	Decreasing Decreasing Decreasing
6. Secure Access To Data To Support Simulations	Defence has ready and cost-effective access to the data required to support simulations throughout their life cycle.	<ul style="list-style-type: none"> • The gap between forecast data requirements and the data accessible. • The cost/impact of alternative arrangements for not having access to data. • The activities delayed/stopped due to lack of access to data. • The degree of reuse of data for simulation. • The delay between submission of a request and receipt of the data. 	Decreasing Decreasing Decreasing Increasing Decreasing

Table 2 – Result Area Level Key Performance Indicators

RESULT AREA	OBJECTIVE	KEY PERFORMANCE INDICATORS What indicator/s will help determine if the suite of tasks for this Result Area enable Defence to meet the Result Area objectives?	TREND
1.1. Providing Strategic Direction	Defence uses a practical approach which identifies the strategic direction for simulation, and articulates the tasks and activities required to achieve it.	<ul style="list-style-type: none"> • DSF endorsement of a long term vision for simulation in Defence. • The degree to which simulation tasks and activities are derived from, and/or traceable to, the Defence Simulation Vision. • The perception that the strategic direction is effective/practical. 	Continuing Increasing Improving
1.2. Advancing The Management Structure	Defence has in place the management structure necessary to ensure that its vision for simulation is realised.	<ul style="list-style-type: none"> • The number of simulation activities that cannot be progressed due to lack of suitable management structure. • The perception that the management structure is effective. 	Decreasing Improving
1.3. Using Effective Processes	Effective processes consistent with Defence's simulation vision are employed in the management of Defence's simulation capability.	<ul style="list-style-type: none"> • The number process outcomes that cannot be mapped to the Defence Simulation Vision. • The perception that the processes employed are effective. 	Decreasing Improving
1.4. Resourcing Simulation Appropriately	Defence recognises that simulation is a key element of its overall capability, and resources it accordingly.	<ul style="list-style-type: none"> • The number and cost of the opportunities lost due to inadequate resourcing. • The perception that resourcing for simulation is in proportion to its value to Defence. 	Decreasing Improving
2.1. Promoting Awareness And Acceptance	All Defence members have suitable awareness of opportunities and limitations of simulation, and accept simulation as a key element of Defence capability.	<ul style="list-style-type: none"> • The level of suitable awareness, as indicated by sample/survey. • The perception that simulation awareness and acceptance among Defence members is satisfactory. 	≥75% Improving
2.2. Exploiting New Opportunities For Resourcing	Defence has successful mechanisms to resource the transition to new, simulation-supported, ways of doing business.	<ul style="list-style-type: none"> • The number of endorsed simulation proposals which fail inappropriately as a result of resourcing issues. 	Decreasing
2.3. Progressing New Simulation Opportunities	Defence has an active and ongoing program which identifies and pursues new opportunities for simulation.	<ul style="list-style-type: none"> • The perception that new simulation opportunities are being actively identified and pursued. 	Improving
2.4. Exploiting New Technology	Defence trials existing and emerging technology and develops new technology to support its simulation objectives.	<ul style="list-style-type: none"> • The time between new technology emergence and an assessment of its value to Defence. • The time between the identification of a technology availability gap and the development of technology to fill the gap. 	Decreasing Decreasing
3.1. Designing the 'Broad Scheme'	Defence uses a process to establish and evolve a 'broad scheme' of combined simulations.	<ul style="list-style-type: none"> • DSF concurrence with the initiatives included in the 'broad scheme'. 	Continuing
3.2. Mastering The Technical Aspects	Defence has in place all the technical mechanisms required to allow simulations to be combined where there is benefit in doing so.	<ul style="list-style-type: none"> • Instances where implementation of an element of the 'broad scheme' is thwarted due to technical aspects. 	Decreasing
3.3. Developing The Management Aspects	Defence has in place all the management mechanisms required to allow simulations to be combined and utilised effectively.	<ul style="list-style-type: none"> • The number of combined simulations whose benefits are undermined because of poor management. 	Decreasing

RESULT AREA	OBJECTIVE	KEY PERFORMANCE INDICATORS What indicator/s will help determine if the suite of tasks for this Result Area enable Defence to meet the Result Area objectives?	TREND
4.1. Forecasting Future Personnel Needs	Defence uses a practical approach for forecasting future requirements for personnel with simulation expertise.	<ul style="list-style-type: none"> The number of personnel requirements which are not forecast. The perception that Defence's approach to forecasting future personnel needs is effective. 	Decreasing Improving
4.2. Developing Simulation Expertise	Defence has an effective program which meets its future requirements for personnel who are trained, qualified and experienced in simulation.	<ul style="list-style-type: none"> The number of simulation positions filled with personnel who are adequately trained, qualified and/or experienced. 	Increasing
4.3. Managing Simulation Expertise	Defence uses a structured and practical process for deploying and maintaining simulation expertise when and where required.	<ul style="list-style-type: none"> The number of forecast personnel requirements not satisfied. The perception that Defence's process for managing simulation expertise is effective. 	Decreasing Improving
5.1. Identifying Support Requirements	Defence uses a practical approach which identifies the functions necessary to support its simulations through life.	<ul style="list-style-type: none"> The number of requirements for support functions which are not forecast. The perception that Defence's approach to identifying support functions is effective. 	Decreasing Improving
5.2. Establishing Support Functions	Defence has an effective program which establishes the functions necessary to support its simulations through life.	<ul style="list-style-type: none"> The degree of difference between the support function requirements identified and the support functions established. The perception that the program Defence uses to establish support functions is effective. 	Decreasing Improving
5.3. Maintaining Support Functions	Defence uses a structured process which maintains the functions necessary to support its simulations through life.	<ul style="list-style-type: none"> The number of times simulations are not available as a result of poor maintenance of the support functions established. The perception that Defence's processes for maintaining support functions are effective. 	Decreasing Improving
6.1. Forecasting Future Data Requirements	Defence uses a practical approach which forecasts future simulation data requirements in a timely manner.	<ul style="list-style-type: none"> The number of data requirements which are not forecast. The perception that the approach Defence uses for forecasting future simulation data requirements is effective. 	Decreasing Improving
6.2. Addressing Fitness For Purpose of Data	Defence data management activities ensure the data used for simulation is fit for purpose.	<ul style="list-style-type: none"> The number of simulations compromised through the use of unsuitable data. The perception that Defence's data management activities ensure data is fit for purpose. 	Decreasing Improving
6.3. Establishing Data Access Mechanisms	Defence uses robust processes for accessing data for simulations.	<ul style="list-style-type: none"> The number of simulation activities which stall through lack of data access mechanisms. The cost impact of accessing the same data on multiple occasions. 	Decreasing Decreasing
6.4. Maintaining Data Currency	Defence uses robust processes for maintaining data currency, throughout the life of the dependent simulations.	<ul style="list-style-type: none"> The number of simulations whose effectiveness is diminished as a result of simulation data that is not current. The perception that simulation data is suitably maintained. 	Decreasing Improving

IMPLEMENTATION APPROACH

1. This section presents guidance on the implementation of the Defence Simulation Plan from a Defence-wide perspective.
2. The Result Areas described in Part 1 of the Plan provide the framework for developing the specific tasks which need to be implemented in order to realise the Defence vision for simulation (see DI(G) OPS 42-1).
3. Tasks that have a Defence-wide impact are described in Part 2 of this Plan. Individual tasks may require contributions from more than one Defence Group. However, nominated agencies will have overall responsibility for progressing the work required. These 'lead' agencies are identified in the task tables in Part 2 of the Plan.
4. By inspection, there is work in all Result Areas which needs to proceed in parallel so that mutual benefits arising from predictable inter-dependencies can be realised.
5. Target timeframes for Result Areas and the scheduling of subordinate tasks are substantially matters for professional judgement. Such judgement will draw upon consideration of the following factors:
 - a. What is the status of the associated Result Area? Has significant progress towards achieving the Result Area objective been made?
 - b. Which Application Areas for simulation, as described in the Defence Simulation Policy, will be supported by the work?
 - c. What leverage does the task and its corresponding Result Area exert on the enhancement of Defence capability, saving of resources, and reduction of risk?
6. With the above in mind, a Resourcing Supplement to the Defence Simulation Plan is to be produced. Its purpose is to help secure and direct the allocation of resources to tasks. This Supplement to the Plan will be developed via a consultative process involving close collaboration with members of the DSF.
7. The development of this agreed Defence-wide investment profile will proceed in parallel with each Group's own resourcing initiatives. The latter will need to progress within the Defence framework established by the Defence Simulation Plan while responding to each Group's particular investment priorities.

FORMULATION OF TASKS

1. As outlined in the Introduction, the specific tasks formulated under this Plan will be documented:
 - a. in Part 2 of the Defence Simulation Plan if they apply across a range of Defence simulation activities, or
 - b. in individual Defence Group planning documents if they apply only to one Defence Group.
2. Formulation of tasks for a particular Result Area may be assisted by the focus question: **‘What Defence-wide/Group-wide tasks need to be initiated or progressed in order to achieve the particular Result Area objective?’**.
3. Further, the formulation of tasks may be assisted by considering each Result Area from the following viewpoints:
 - a. **Culture** – the attitudes of individuals and of groups within the organisation which influence the success of new initiatives.
 - b. **Organisation** – the formal and informal, enduring and transient elements of the Defence or Group organisation.
 - c. **Personnel** – the training, qualifications and experience of individuals.
 - d. **Procedures and Processes** – the formal and informal ways in which Defence/Group business is conducted.
 - e. **Technology** - the technological issues which need to be overcome.
 - f. **Infrastructure** – the assets or tools (hardware and software) which need to be established.
 - g. **Information** – the information which needs to be identified and sourced.
 - h. **Resourcing** – the ways in which resources are secured and distributed.