

Assessment of the Status of Integrated Collaborative Design Principles within an Organisation

This assessment determines the extent to which each Integrated Collaborative Design (ICD) principle is present within your organisation. The information generated will help you develop your ICD the practice by identifying those areas that require attention.

Complete the assessment by providing responses that, from your perspective, best describe the current practice of your organisation. The left hand side of each sheet will guide you through the assessment. The matrices used to perform the assessment are provided on the right of each page.

To help us analyse the results, please indicate the nature of your organisation below. We won't be able to identify individual responses from this, so your confidentiality is assured. We will, however, be able to compare different sections of the industry as a useful academic exercise at a later date.

What is the main function of your organisation?

For example, is your organisation a component manufacturer, a systems integrator, an educational institution, etc.?

Maturity Assessment of Applying Process Modelling

What does this assessment tell me?

The practice of Integrated Collaborative Design (ICD) is supported in an organisation by establishing and maintaining three principles. This part of the assessment determines the extent to which the first ICD principle - Applying Process Modelling - is present within your organisation. This will inform your strategies to develop your organisation's ICD practice and, specifically, the use of process modelling.

How do I perform this assessment?

This assessment can be performed individually, or within a group. The latter is preferred as it promotes the discussion required to fully explore the issues surrounding an organisation's ICD practice. Further, by performing a single assessment in a workgroup involving key representatives of appropriate sections of an organisation, consensus regarding the issues to be addressed can be reached.

The assessment is presented in three matrices, addressing each of the ICD principles in turn. This is the first matrix. Each row in the matrix on the right represents an aspect of Applying Process Modelling.

Work through the matrix one row at a time. Within each row, identify the cell whose content best describes the status of your organisation. This is done with reference to the scale across the top of the matrix, which represents advancing stages in an organisation's ICD practice, working from left to right. This scale follows the structure of the Construction Performance Driver assessment, provided by the Construction Best Practice Programme. In this assessment, it illustrates the stages an organisation will advance through as it establishes each aspect of an ICD principle.

Record the single cell from each row that best describes the current status of each aspect of Applying Process Management by ticking the appropriate box. When you have selected one cell from every row, your assessment of the extent to which Process Modelling has been adopted by your organisation is complete, and you can progress to appraise the Adoption of Supply Chain Management on the next page.

How do I apply what I've learnt?

Once you have assessed the extent to which each of the three ICD principles are established within your organisation, you can determine which principles (and principle elements) require action to advance them in your organisation.

Differentiating between information flows and design tasks so that responsibility for the performance of design tasks can be allocated to organisations according to their technical competency.

Defining and representing the project processes for which an organisation is responsible so that the design tasks performed by different organisations can be aligned.

Defining the interface between the design processes of organisations so that gaps and overlaps in the exchange of design information between them can be eliminated.

Understanding the information requirements of different organisations so that the exchange of design information between can be managed according to their requirements.

Ensuring that organisations are aware of their own processes and those of the organisations they work with so that roles and responsibilities are clearly defined and well understood.

Capturing lessons about process definition from project experiences so that the relationship of organisations can be improved over time by gradually extending organisations' understanding of each other's processes.

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
	Don't know	Haven't thought about it	Thinking of doing something about it	Doing it as normal business	Full deployment and improvements	Inherent practice throughout operations
Understanding Project Processes	No understanding of project processes	Projects use processes defined by contract	Recognise that existing processes require development	Seeking alignment of project processes	Coherent project processes well established between organisations	Consistent project processes developed and aligned with competencies
Modelling Project Processes	No knowledge of process modelling	Individual businesses define own processes	Consistent work breakdown structures recognised	Generic processes established and used	Shared work breakdown structures are understood and utilised	Processes modelled and tasks aligned
Aligning Organisational Interfaces	No attempts to define interfaces	Inconsistent allocation of tasks with significant interface problems	Design overlaps and gaps recognised in critical areas	Task allocation between all organisations based on known interfaces and competencies	Seamless transfer of information without gaps or overlaps	Fully aligned interfaces with a just-in-time release of information
Enhancing Design Information Co-ordination	Design information exchange is not effectively managed or monitored	Design information is "pushed" to all parties indiscriminately, regardless of need based on contracts	Recognised overload of information flow and need to realign practices	Design information shared in common format with clear understanding of needs	Information needs of each organisation understood with predominately "pull" transfers of essential information only	Fully co-ordinated needs expressed including "what" and "why" it is important
Establishing Project Transparency	Silo mentalities predominate	Obscured roles and poor communication cause significant delays to projects	Communication problems recognised as cause of poor performance on projects	Project roles are well defined and communicated	Mutual agreement of roles is established as basis for co-ordination	Fully effective communication based upon clarity of roles and responsibilities
Fostering Project Learning	No acknowledgement of the impact of projects in delivery	Problems recur on successive projects causing poor performance and delays	Mechanisms exist for capturing feedback from individual projects	Feedback from projects is consistently captured and shared	Feedback is managed collaboratively across projects	Project-based learning is fed back to business relationships to improve future project performance

Maturity Assessment of Adopting Supply Chain Management Practices

What does this assessment tell me?

The practice of Integrated Collaborative Design (ICD) is supported within an organisation by establishing and maintaining three principles. This assessment structures your determination of the extent to which the second of these principles - Adopting Supply Chain Management Practices - is present within your organisation. This will inform your strategies to develop your organisation's practice of ICD and, specifically, its use of supply chain management in its everyday work.

How do I perform this assessment?

This assessment can be performed individually, or within a group. The latter is preferred as it promotes the discussion required to fully explore the issue surrounding an organisation's ICD practice. Further, by performing a single assessment in a workgroup involving key representatives of appropriate sections of an organisation, consensus regarding the issues to be addressed can be reached.

The assessment is presented in three matrices, addressing each of the ICD principles in turn. This is the second matrix. Each row in the matrix on the right represents an aspect of Adopting Supply Chain Management.

Work through the matrix one row at a time. Within each row, identify the cell whose content best describes the status of your organisation. This is done with reference to the scale across the top of the matrix, which represents advancing stages in an organisation's ICD practice, working from left to right. This scale follows the structure of the Construction Performance Driver assessment, provided by the Construction Best Practice Programme. In this assessment, it illustrates the stages an organisation will advance through as it establishes each aspect of an ICD principle.

Record the single cell from each row that best describes the current status of each aspect of Adopting Supply Chain management by ticking the appropriate box. When you have selected a cell from every row, your assessment of the extent to which Supply Chain Management Practices have been applied in your organisation is complete, and you can progress to appraise the Establishment of Value Frameworks on the next page.

How do I apply what I've learnt?

Once you have assessed the extent to which each of the three ICD principles are established within your organisation, you can determine which principles (and principle elements) require action to advance them in your organisation.

Establishing long term business relationships between partnered organisations in a supply network so that supply chains can be assembled to link the organisations involved in projects.

Finding mechanisms (which may be business relationships alone, or relationships facilitated by technology) to link organisations together so that a supply network can be formed in the business domain.

Making improvements that look beyond the short-term objectives of a single organisation within a supply network so that its ability to perform in project supply chains can be improved.

Harmonising the attitudes and culture among supply networks members so that the traditionally adversarial nature of organisation relationships in construction can be overcome.

Improving project relationships between organisations to build business relationships.

Viewing a supply chain in terms of design information exchange so that it can be managed as a design chain.

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
	Don't know	Haven't thought about it	Thinking of doing something about it	Doing it as normal business	Full deployment and improvements	Inherent practice throughout operations
Establish Business Networks	No awareness of any business networks	Informal networks of individuals and organisations arising from project relationships	Existence of informal networks is registered	Informal networks are being developed into formal relationships	Assessment of benchmarking of membership of formalised networks	Stable networks facilitating co-development and joint-improvement
Building Business Relationships	No recognition of the need for or extent of business relationships	All relationships mediated through current projects	Recognise existence of long-term informal relationships between individuals or organisations	Attempts made to manage long-term relationships between individual organisations	Development of formal structures to manage strategic relationships	Structured approach to strategic relationships involves regular assessment and benchmarking performance
Applying a Holistic Approach to Delivery	Organisations operate solely to comply with contractual obligations	Organisations operate independently to optimise their own performance	Recognition that project success requires teamwork across organisations	Interdependence resulting from longer-term relationships used to optimise delivery of combined services	Formal arrangements between organisations created to facilitate integrated project approach	Supply chain seen as unitary structure with organisation interests subordinate to overall service delivery
Changing Attitudes	Defensive attitudes pervade; organisations seek to keep their distance from others	Isolated pockets of co-operation dependent on personal relationships	Development of implicit mutual obligations between businesses	Changes to formal arrangements; projects and business practices alongside developing trust	Development of a hierarchy of organisational status amongst suppliers and customers	Developed obligational relationships with long term co-operative focus
Linked Business SCM with Project SCM	No recognised link between business and project activities	Project SCM activities predominate with weak links to business relationships	Attempting to develop generic approaches to SCM project tasks	Collaboration with individual organisations to improve project SCM practices between projects	Use of network as a resource to develop generic project practices and project arrangements	Integrated network acts as a virtual organisation
Creating Design Chains from Supply Chains	No awareness of the existence or of need for design chains	Contractual management of design input provided by different organisations	Inconsistent approach to managing design on a project by project basis	Recognition of the role of design in project supply chain	Practices developed to integrate design capability of networked organisations	Delivery of integrated design chains providing integrated design solutions

Maturity Assessment of Establishing Value Frameworks

What does this assessment tell me?

The practice of Integrated Collaborative Design (ICD) is supported within an organisation by establishing and maintaining three principles. This assessment structures your determination of the extent to which the third of these principles - Establishing Value Frameworks - is present within your organisation. This will inform your strategies to develop your organisation's practice of ICD and, specifically, its use of value frameworks in its everyday work.

How do I perform this assessment?

This assessment can be performed individually, or within a group. The latter is preferred as it promotes the discussion required to fully explore the issues surrounding an organisation's ICD practice. Further, by performing a single assessment in a workgroup involving key representatives of appropriate sections of an organisation, consensus regarding the issues to be addressed can be reached.

The assessment is presented in three matrices, addressing each of the ICD principles in turn. This is the third matrix. Each row in the matrix on the right represents an aspect of Establishing Value Frameworks.

Work through the matrix one row at a time. Within each row, identify the cell whose content best describes the status of your organisation. This is done with reference to the scale across the top of the matrix, which represents advancing stages in an organisation's ICD practice, working from left to right. This scale follows the structure of the Construction Performance Driver assessment, provided by the Construction Best Practice Programme. In this assessment, it illustrates the stages an organisation will advance through as it establishes each aspect of an ICD principle.

Record the single cell from each row that best describes the current status each aspect of Establishing Value Frameworks by ticking the appropriate box. When you have selected a cell from every row, your assessment of the extent to which Value Frameworks have been established by your organisation is complete. This completes the assessment of the current status of the three ICD principles within your organisation.

How do I apply what I've learnt?

Once you have assessed the extent to which each of the three ICD principles are established within your organisation, you can determine which principles (and principle elements) require action to advance them in your organisation.

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	
	Don't know	Haven't thought about it	Thinking of doing something about it	Doing it as normal business	Full deployment and improvements	Inherent practice throughout operations	
Understanding the differences between business value and project value so that the delivery of each can be managed appropriately.	Understanding Business Value and Project Value	No recognition of difference between business and project value	The importance of managing business and project activities according to role in creating value not appreciated	Recognise that there might be a difference	The role of individual processes in contributing to business or project value is understood	Process management reflects their role in creating business or project value	Processes are optimised according to their role in creating business or project value
Confirming that process modelling and supply chain management are sufficiently well established in the organisations attempting to establish value frameworks so that they are built on adequate foundations.	Value System Prerequisites	Not aware of the status of process modelling and SCM within organisation	Organisation operates traditionally, without process modelling or SCM	Aware that process modelling and SCM are required to build value frameworks	Process modelling and SCM are being established	Process modelling and SCM fully established	Process modelling and SCM are an inherent part of 'how things are done'
Using the ICD value chain model to classify an organisation's business processes so that those suited to sharing with other organisations can be identified.	Examining Business Processes using a Value Chain	Not aware of existence of value chain	Business processes are optimised by information flow alone, without regard to their potential value-adding role	The ICD value chain is recognised as a suitable device to examine value-adding role of processes	The ICD value chain is used to classify processes according to role in provision of business or project value	Detailed understanding of role of process in creating business and project value	Management of processes reflects their importance in creating business value and project value
Allocating responsibility for shared processes to individual organisations within a supply network so that a value system can be built by integrating the function of its member organisations.	Building a Value System from a Supply Network	Not aware of what a value system is or the business benefits it could bring	Supply network members work in isolation from each other and do not relate to their activities	Recognition that the creation of a value system would bring mutual benefit to supply network members	Supply network members have identified common processes and beginning to share them	Value system members are mutually interdependent due to the sharing of common processes	Value system members offer services as a single business
Aligning value system members within a design chain so that all can address the delivery of end user value through their combined project function.	Introducing Value System Benefits to Projects	Value system exists in the business domain, but methods of applying integrated working to projects not yet established	No evidence of a value system, in the business or the project domain	Opportunity to improve effectiveness of project design chain using value system relationships identified	Value chains used routinely within organisations to identify processes suited to sharing in value systems	Design chain members align their internal processes using value chains prior to projects commencing	Co-ordinated interface for all design chain members
Sharing integral value engineering resources within a value system so that value-adding design solutions can be collaboratively developed in project design chains.	Practising Integral Value Engineering	Design chain exists, but members do not co-ordinate their project activities	No evidence of IVE practice or resources	Infrastructure for IVE in place, but yet to be fully used	Project design solutions developed using collaborative working between value system members	IVE resources shared between all design chain and value system members	Projects deliver fully-integrated solutions that make the best use of all design chains members' expertise