DOWNLOAD PDF DESIGNING A RECONFIGURABLE ORGANIZATIONAL

Chapter 1 : reconfigurable Organization | COPIB â€“ Community Of Practice In Bio-inspired management

reconfigurable organization is the means to execute this continuous strategy shifting. An Example of the Reconfigureable Organization The reconfigurable organization results from the skilled use of three capabilities. First, the organization is reconfigured by forming teams and networks across organizational departments.

The Model instructs organizations to use the business strategy or agency mission to drive structure decisions. Based on these existing structures and processes, further development of human resource capabilities are outlined and appropriate processes are implemented. The key elements of organizational design in the Star Model include: Such structure types may include: Today, organizations and Government Agencies change strategies often to keep up with market demands, innovation, and new technologies. Competitors that can efficiently reproduce an effective strategy, force market leaders to continuously improve processes and structures to align their own proficiencies when implementing effective change. To achieve this level of fluidity, the supporting organizational structure and processes must be dynamic in order to support changing strategies. Jay Galbraith authored Designing a Reconfigurable Organization , which describes how organizations can use the Star Model to reconfigure structure and supporting processes in order to provide the foundation for a continuously changing strategy. Structure in a reconfigurable organization has both stable and variable components. The functional structure is the stable component. These resources participate in cross-functional teams but do not rotate across functions. The variable portions of a flexible organization allow a business or agency to further organize miniature business units by product, market segment, channel, technology or other relevant parameter. Employees from functional areas may participate in one or more cross-functional team s. Infrastructure which supports the capability to reconfigure includes: Information and goal-setting processes which support the determination of profitability at the individual business unit level â€” these processes may include accounting, data structures and planning A strong management team which can set priorities and divide resources among many business units Strong conflict management skills at all levels to quickly resolve conflict brought about by constant change Human resource policies and practices which support a reconfigurable culture. Because positions will change, an employee who can excel within changing cross-functional teams is more valuable than a resource with a specific skill-set Training targeted at developing cross-functional team participation â€” training should be aimed at developing relationships as well as skills Reward and appraisal systems that foster cross-unit skills and interpersonal networks â€” team based appraisals are favored over a single manager appraisal External partnerships to account for capabilities the organization does not have In order for the reconfigurable Star Model to be successful, top management must be committed to organizational flexibility and implement the infrastructure required to support the needs of the organization or agency. While time and resources are required to build the necessary systems and practices, the result will be an organization that is able to create short-term temporary advantages which lead to customer value. An organization with flexibility in creating customer-valued capabilities will surpass competitors. To continue the discussion about creating a reconfigurable organization or agency, contact us. Jay Galbraith passed away in April of A Jay Galbraith Memorial Project was completed to highlight his contributions to the field of organizational design.

Chapter 2 : Reconfigurable manufacturing system - Wikipedia

The Reconfigurable Organization is characterized by Active Leadership; Knowledge Management; Learning; Flexibility; Integration; Employee Commitment; Change Readiness; Designing Dynamic Organizations walks you through the process of organizational re-design, discussing everything from focus groups to the design process. They are thorough, accessible, and really intending the group for leaders and practitioners, pointing out that top leaders and HR Directors will find this very useful.

What actually has to improve and by how much? Published by poster on November 6, Save time, empower your teams and effectively upgrade your processes with access to this practical Reconfigurable computing Toolkit and guide. Address common challenges with best-practice templates, step-by-step work plans and maturity diagnostics for any Reconfigurable computing related project. Download the Toolkit and in Three Steps you will be guided from idea to implementation results. The Toolkit contains the following practical and powerful enablers with new and updated Reconfigurable computing specific requirements: Get your bearings Start withâ€¦ The latest quick edition of the Reconfigurable computing Self Assessment book in PDF containing 49 requirements to perform a quickscan, get an overview and share with stakeholders. Set concrete goals, tasks, dates and numbers you can track Featuring new and updated case-based questions, organized into seven core areas of process design, this Self-Assessment will help you identify areas in which Reconfigurable computing improvements can be made. Examples; 10 of the standard requirements: Cloud management for Reconfigurable computing do we really need one? Is data collection planned and executed? Will We Aggregate Measures across Priorities? Think about the kind of project structure that would be appropriate for your Reconfigurable computing project. What tools and technologies are needed for a custom Reconfigurable computing project? What situation s led to this Reconfigurable computing Self Assessment? If you were responsible for initiating and implementing major changes in your organization, what steps might you take to ensure acceptance of those changes? Is the performance gap determined? Complete the self assessment, on your own or with a team in a workshop setting. Use the workbook together with the self assessment requirements spreadsheet: The workbook is the latest in-depth complete edition of the Reconfigurable computing book in PDF containing requirements, which criteria correspond to the criteria inâ€¦ Your Reconfigurable computing self-assessment dashboard which gives you your dynamically prioritized projects-ready tool and shows your organization exactly what to do next: The Self-Assessment Excel Dashboard; with the Reconfigurable computing Self-Assessment and Scorecard you will develop a clear picture of which Reconfigurable computing areas need attention, which requirements you should focus on and who will be responsible for them: Shows your organization instant insight in areas for improvement: Auto generates reports, radar chart for maturity assessment, insights per process and participant and bespoke, ready to use, RACI Matrix Gives you a professional Dashboard to guide and perform a thorough Reconfigurable computing Self-Assessment Is secure: Ensures offline data protection of your Self-Assessment results Dynamically prioritized projects-ready RACI Matrix shows your organization exactly what to do next: Examples; 10 of the check box criteria: Team Member Performance Assessment: How are assessments designed, delivered, and otherwise used to maximize training? Budgets assigned to major functional organizations? Are the overhead pools formally and adequately identified? Are the follow-up indicators relevant and do they meet the quality needed to measure the outputs and outcomes of the Reconfigurable computing project? Is it safe to say you can handle more work or that some tasks you re supposed to do arent worth doing? Probability and Impact Matrix: Were there any Reconfigurable computing projects similar to this one in existence? Are the WBS and organizational levels for application of the Reconfigurable computing projected overhead costs identified? Step-by-step and complete Reconfigurable computing Project Management Forms and Templates including check box criteria and templates.

Chapter 3 : Reconfigurable computing - Wikipedia

Organizational design is "the deliberate process of configuring structures, processes, reward systems, and people practices to create an effective organization capable of achieving the business strategy" (Designing Your Organization). It is to harness the efforts of individuals, although often it has been a barrier to them.

Reply Fractals in Organizations Fractals are patterns that repeat themselves on different scales. A common example is broccoli, where the base-pattern floret repeats itself to determine each subsequent level and the final shape of the broccoli. The discovery that Nature has designed many structures, including the most trivial, across physical reality with such economy and foresight has placed significant shaping power into the hands of engineers and scientists. There are several examples of fractals, which are defined as portraying exact self-similarity, quasi self-similarity, or statistical self-similarity. Fractals are found in nature. These objects display self-similar structure over an extended, but finite, scale range. Examples include clouds, river networks, fault lines, mountain ranges, craters, snowflakes, crystals, lightning, cauliflower or broccoli, and systems of blood vessels and pulmonary vessels, and ocean waves. Each piece in the natural shape is represented a whole structure of that shape, such as mountains, coastlines and galaxies Hangzhou, The fractal is based on relationships, emergence, patterns, and iteration Fryer and Ruis. A vast range of dynamic phenomena in life, including individual behavior, functioning of teams and organizations, market dynamics, movement in economies, and even movement of encompassing systems such as the environment and society similarly display fractal dynamics. Organizations are becoming global and virtual. Spatial limitations are negligible. Competencies for future organizations are based on principles on flexibility, interdependencies, tolerance to dynamic changing environment, and partnership instead of ownership, stability, and control. To understand future organizations we need to understand purpose and structure of the organizations. New Competencies for a New World, Somerville, and Mroz deal with why change causes managers to be uncomfortable. Few are willing to give up control. Organizations are slow to consider new ways to do business. In The Circular Organization, Hesselbein discussed how pyramid organizations and boxes are being replaced and redesigned. By removing people from boxes and inherent job descriptions , people are being liberated, and their roles are being changed in a more dynamic way. Ability of the members become vital than their position or rank. In doing so, a new fluidity of the traditional organization structure that is released in several ways: Firms that compete without any competitive advantage have a more difficult challenge, having to develop: The purpose of the organization usually to execute its business strategies The strategy which usually drives the type of organization that is needed Organization alignment which is the key to sustainability Organization design which must create competitive advantage and be re-configurable The four statements above help to create increased value and organizational response. RE-configurable organizations must possess three capabilities: Teams can be formed across organizational departments cross-functional teams Internal information Prices, markets, etc. Innovation of the accounting, human resource management, and information system shall be initiated to make organization re-configurable. It is defined as the ability to change and re-configurable organization structure quickly depending on the situation and organization environment. Structural flexibility helps organizations adapt to changes in their competitive environment, allowing them to maintain a responsive posture. It enhances internal communications, cooperation, and coordination between the teams, task forces and lateral information processing, all of which are necessary to accommodated changes in strategy, technology, and product. Organizations are endowed with Structural flexibility by employing the inherent capability of fractals. Fractals applied in organizations are defined as independent functioning corporate entity whose goal and performance can be precisely described. Fractals were implemented by Warnecke, to describe structure and processes of a system in the manufacturing environment and as a method to link system units. Fractals have higher autonomy and more flexibility in its units compared to other distributed system approaches Tharumarajah et al. The differences between fractal and conventional systems depend on hierarchical structure. A distributed system model can only be a fractal, if it possesses self-similarity, self-organization, and goal-orientation dynamics. Warnecke, ; Tharumarajah et al. Each feature

performs a specific function in the fractal. Many researchers have used the fractals in different fields to solve problems and to investigate flexibility and quick adaptability to system changes Manufacturing Enterprise supply chain management of e-business companies Software.

Chapter 4 : Organizational Design to Support a Changing Strategy

Please cite this article in press as: J.R. Galbraith, The Multi-Dimensional and Reconï¬•gurable Organization, Organ Dyn (), doi/ calendrierdelascience.com The Multi-Dimensional and Reconï¬•gurable Organization JAY R. GALBRAITH O ne of the new organizational forms that will evolve in the 21st century is the multi-dimen-sional organization.

Integrability[edit] the ability to integrate modules rapidly and precisely by a set of mechanical, informational, and control interfaces that enable integration and communication. At the machine level, axes of motions and spindles can be integrated to form machines. Integration rules allow machine designers to relate clusters of part features and their corresponding machining operations to machine modules, thereby enabling product-process integration. At the system level the machines are the modules that are integrated via material transport systems such as conveyors and gantries to form a reconfigurable system. To aid in designing reconfigurable systems, system configuration rules are utilized. In addition, machine controllers can be designed for integration into a factory control system. This characteristic drastically distinguishes RMS from flexible manufacturing systems FMS , and allows a reduction in investment cost. It enables the design of a system for the production of a part family, rather than a single part as produced by DML or any part typical FMS. In the context of RMS, a part family is defined as all parts or products that have similar geometric features and shapes, the same level of tolerances, require the same processes, and are within the same range of cost. The definition of the part family must ensure that most manufacturing system resources are utilized for the production of every member part. The RMS configuration must be customized to fit the dominant features of the whole part family by utilizing the characteristic of customized flexibility. Customized flexibility for the part family allows the utilization of multiple tools e. Convertibility[edit] the ability to easily transform the functionality of existing systems, machines, and controls to suit new production requirements. System convertibility may have several levels. Conversion may require switching spindles on a milling machine e. System conversion at this daily level must be carried out quickly to be effective. To achieve this, the RMS must utilize not only conventional methods such as off-line setting, but it should also contain advanced mechanisms that allow for easy conversion between parts, as well as sensing and control methods that enable quick calibration of the machines after conversion. Scalability is the counterpart characteristic of convertibility. Scalability may require at the machine level adding spindles to a machine to increase its productivity, and at the system level changing part routing or adding machines to expand the overall system capacity i. Diagnosability[edit] the ability to automatically read the current state of a system for detecting and diagnosing the root-cause of output product defects, and subsequently correct operational defects quickly. Diagnosability has two aspects: The second aspect is critical in RMS. As production systems are made more reconfigurable, and their layouts are modified more frequently, it becomes essential to rapidly tune or ramp-up the newly reconfigured system so that it produces quality parts. Consequently, reconfigurable systems must also be designed with product quality measurement systems as an integral part. These measurement systems are intended to help identify the sources of product quality problems in the production system rapidly, so they can be corrected utilizing control methods, statistics, and signal processing techniques. The more of these principles applicable to a given manufacturing system, the more reconfigurable is that system. The RMS principles are: The RMS is designed for adjustable production resources to respond to imminent needs. To enhance the speed of responsiveness of a manufacturing system, core RMS characteristics should be embedded in the whole system as well as in its components mechanical, communications and controls. The RMS is designed around a part family, with just enough customized flexibility needed to produce all parts in that family. The RMS contains an economic equipment mix of flexible e. The RMS possesses hardware and software capabilities to cost-effectively respond to unpredictable events â€” both external market changes and intrinsic events machine failure. FMS aims at increasing the variety of parts produced. RMS aims at increasing the speed of responsiveness to markets and customers. RMS is also flexible, but only to a limited extent â€” its flexibility is confined to only that necessary to produce a part family. The advantages of customized flexibility are faster throughput and higher production rates. Other important advantages of RMS are rapid scalability to

the desired volume and convertibility, which are obtained within reasonable cost to manufacturers. The best application of a FMS is found in production of small sets of products [see Wikipedia]; With RMS, however, production volume may vary from small to large. These elements are summarized below. Given a part family, desired volume, and mix, a System-Level Process Planner can suggest alternative system configurations and compare their productivity, part quality, convertibility, and scalability options. A Life-Cycle Economic Modeling methodology, based on blending dynamic programming with option theory, recommends the system that will be optimally profitable during its lifetime. A Reconfigurable Machine Tool RMT design methodology allows machines to be systematically designed, starting from the features of a family of parts to be machined. A logic control design methodology for sequencing and coordination control of large manufacturing systems results in reconfigurable and formally verifiable controllers that can be implemented on industrial PLCs.

Chapter 5 : reconfigurable organization â€“ Global Genesis

An organization with flexibility in creating customer-valued capabilities will surpass competitors. To continue the discussion about creating a reconfigurable organization or agency, contact us. The STAR Model was a significant contribution to the organizational design community. Jay Galbraith passed away in April of

Xputer Computer scientist Reiner Hartenstein describes reconfigurable computing in terms of an anti-machine that, according to him, represents a fundamental paradigm shift away from the more conventional von Neumann machine. This paradox is partly explained by the Von Neumann syndrome. High-Performance Reconfigurable Computing HPRC is a computer architecture combining reconfigurable computing-based accelerators like field-programmable gate array with CPUs or multi-core processors. This has brought reconfigurable computing into the high-performance computing sphere. Furthermore, by replicating an algorithm on an FPGA or the use of a multiplicity of FPGAs has enabled reconfigurable SIMD systems to be produced where several computational devices can concurrently operate on different data, which is highly parallel computing. This heterogeneous systems technique is used in computing research and especially in supercomputing. Field programmable gate arrays are often used as a support to partial reconfiguration. Electronic hardware , like software , can be designed modularly, by creating subcomponents and then higher-level components to instantiate them. In many cases it is useful to be able to swap out one or several of these subcomponents while the FPGA is still operating. Normally, reconfiguring an FPGA requires it to be held in reset while an external controller reloads a design onto it. Partial reconfiguration allows for critical parts of the design to continue operating while a controller either on the FPGA or off of it loads a partial design into a reconfigurable module. Partial reconfiguration also can be used to save space for multiple designs by only storing the partial designs that change between designs. A common example for when partial reconfiguration would be useful is the case of a communication device. If the device is controlling multiple connections, some of which require encryption , it would be useful to be able to load different encryption cores without bringing the whole controller down. Partial reconfiguration is not supported on all FPGAs. A special software flow with emphasis on modular design is required. Typically the design modules are built along well defined boundaries inside the FPGA that require the design to be specially mapped to the internal hardware. From the functionality of the design, partial reconfiguration can be divided into two groups: While the partial data is sent into the FPGA, the rest of the device is stopped in the shutdown mode and brought up after the configuration is completed. Mitrionics[edit] Mitrionics has developed a SDK that enables software written using a single assignment language to be compiled and executed on FPGA-based computers. Module-based partial reconfiguration permits to reconfigure distinct modular parts of the design, while difference-based partial reconfiguration can be used when a small change is made to a design. The Quartus Prime Pro software also support hierarchical partial reconfiguration and simulation of partial reconfiguration. Comparison of systems[edit] This section needs additional citations for verification. Please help improve this article by adding citations to reliable sources. Unsourced material may be challenged and removed. January This section possibly contains original research. Please improve it by verifying the claims made and adding inline citations. Statements consisting only of original research should be removed.

Chapter 6 : Jay Galbraith - Galbraith Management Consultants | International Organization Design

Organization design (which must create competitive advantage and be re-configurable) The four statements above help to create increased value and organizational response. RE-configurable organizations must possess three capabilities.

Chapter 7 : COSMIAC | The University of New Mexico

reconfigurable organization (Galbraith,). These adaptations far from signal- ling the model's weakness show the real strength of a systemic framework where.