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**There are many business terms associated with DAS' Wall-2-Wall initiative and transformation efforts throughout state agencies. You're certain to encounter more of these business-related terms as we move forward. If you have questions about transformation-related terms that this glossary doesn't answer, please contact your supervisor. Not all terms will be used at all agencies, and some agencies may develop terms specific to the techniques they are using.**

**20 Keys<sup>®</sup>** – The 20 Keys establish a set of world-class benchmarks, performance expectations, and a roadmap for improvement within a work group or team.

**5 Golden Rules of Workplace Management** – A set of the most practical reminders in implementing continuous improvement (kaizen) in the workplace (gemba) 1) Go to the work site when problems arise. 2) Check materials, tools, work pieces and equipment. 3) Take temporary measures on the spot. 4) Find and eliminate the root cause. 5) Standardize to prevent recurrence.

**A3 report** – Based on a common paper size (297 × 420 mm), an A3 report is a “storyboard” or pictorial method of depicting problem identification and evaluation, root cause analysis and the corrective action plan on a single sheet of (A-3) paper.

**affinity diagram** – A tool used to organize and present large amounts of data (ideas, issues, solutions, problems) grouped into categories based on like characteristics.

**Andon** – A Japanese term for a status-display station, a type of visual control that displays the process state using red, yellow and green symbols, such as a traffic light.

**baseline** – A snapshot of the state of inputs and outputs at a point in time for a particular process. A baseline should be recorded to establish a starting point to measure the changes achieved with any process improvement. It is the basis against which change is measured.

**batch** – Accumulating multiple pieces of similar work prior to working on them; the opposite of one-piece flow.

**benchmarking** – Comparing business processes and performance metrics to industry bests or best practices from other industries. Dimensions typically measured are quality, time and cost. Improvements from learning mean doing things better, faster, and cheaper. Serves as the standard against which all other activities can be judged.

**best practice** – A way of performing activities or executing processes that is generally considered superior to all other methods in terms of high performance and low cost when compared.

**bottleneck** – A point in a process where the rate of input is greater than the rate of output, limiting total output (also known as a choke point), the location of the constraint.

**breakthrough** – A breakthrough is an improvement in an existing process to a never-before-seen level of performance, or the delivery of a brand new capability. By definition breakthroughs require extraordinary resources to achieve.

**breakthrough plans** – A single-page plan that summarizes the objective, target, situation, strategies and sub-targets of a breakthrough.

**Breakthrough Strategy Map<sup>®</sup>** – a picture of the work an organization has decided it must do to achieve its longer range goals.

**brown paper fair** – An event where a process map is presented and the audience is encouraged to engage actively by commenting on the process maps with post-it notes.

**build-to-order (BTO)** – The manufacturing process where items are produced to order based on actual customer demand and configuration options.

**build-to-replenish (BTR)** – The manufacturing process where items are scheduling for production based on actual shipment from finished goods inventory.

**burning platform** – A looming crisis that demands immediate response; a reference to offshore drilling rigs when they catch fire.

**business case** – A document outlining the justification for the initiation of a project. It includes a description of the business problem or opportunity, supporting data, a list of alternative solutions, their costs and benefits and a recommended course of action to seek resolution.

**business plan** – An operational guide for an organization that sets specific targets for outcomes; a follow-through of the strategic-planning process.

**CI sheets** – Paper forms used to communicate and convert process improvement suggestions into real change within employee work units.

**capability** – The proportion of process runs that meet customer requirements.

**capacity** – The maximum amount of product or service a process can deliver over an extended period of time.

**cascading** – The process of aligning the entire organization (i.e., from department to divisions to work units to individuals) to the outcome measures and process measures set in the business plan as represented on the Fundamentals Management Map® and annual operating plan.

**catch ball** – A series of discussions between managers and their employees during which data, ideas, and analysis are thrown like a ball. This opens productive dialogue throughout the entire company.

**cause-effect diagram** – A tool (also known as fishbone or Ishikawa diagrams) to systematically uncover root causes of process problems. Often used with 5 Whys.

**change agent** – A person with the personality, knowledge and energy to help lead an organization's transformation or cultural change.

**change management** – A structured approach to advance individuals, teams and organizations from a current state to a desired state.

**changeovers** – Switching from one process to another or from one step to another within a process.

**charter** – A statement of the scope, goals, metrics, timing and participants in a project. Used to help guide the change team's work and it identifies the purpose of an improved project.

**coaching** – A method of helping an individual to develop knowledge or skills. Coaching involves setting goals, practicing appropriate behaviors and providing feedback.

**constraint** – Something that limits the output of the entire process.

**continuous flow** – Producing and moving one item at a time through a series of processing steps as continuously as possible, with each step making just what is requested by the next step; the opposite of batching. (Also "one piece flow" and "single piece flow")

**continuous improvement** – Relentlessly and incrementally perfecting products and services by doing things better, faster and cheaper. (Also, continuous change for the better or kaizen)

**core process** – A routine set of activities that are core to the businesses outcomes.

**cost of risk avoidance** or **CORA** – A component of non-value-added activities known as value enablers; the labor, material and other costs associated with reducing the risks and magnitude of negative process outcomes to an acceptable level. Example: Requiring multiple sign-offs is a CORA intended to prevent fraud.

**cost of regulation and compliance** or **CORC** – A component of non-value-added activities known as value-enablers, these are labor, material and other costs associated with operating processes consistent with statutes, administrative rules and policies. Example: Process wait times due to public-notice periods required by statute are CORC.

**cost of poor quality** or **COPQ** – A component of the class of non-value-added activities known as value-enablers, these are the labor, material and other costs associated with identifying and eliminating defects in products and services. Example: Document reviews intended to capture and rework errors are COPQ.

**cost of quality** – Costs associated with supplying a product or service fit for its intended use. Example: Costs associated with preventing defects, inspection and warranty repairs.

**countermeasure** – A change made in a process to prevent a problem from reoccurring.

**critical path** – The shortest or fastest path (also “Yellow Brick Road”) a transaction can take through a process flow chart. (Also, the path taken when everything works as intended.)

**current state** – The process, operation or system before improvements are made.

**current-state map** – A flowchart showing the process as it now operates (Also known as “As Is” map).

**customer** – The person or group of people who use the product, service or information (i.e. the outputs) produced as a result of work processes. They may or may not pay for it. In lean terms, internal customers are people or groups who are downstream in the process but who use the product, service or information produced. External customers are outside the process or value stream but use the output of the process or value stream.

**cycle time** – One cycle of an operation.

**dashboard** or **performance dashboard** – Visually-based summary of operational information that shows real-time understanding of the performance of an organization through metrics.

**defects** – Any product or service that varies from specifications and therefore fails to meet customer requirements.

**data** – Qualitative or quantitative attributes of a variable or set of variables, often expressed in numbers.

**data collection** – quantitative or qualitative observations of a process that can be used in an evaluation of that process.

**define, measure, analyze, improve and control** or **DMAIC** – Steps in a Six Sigma project; a structured, disciplined, rigorous approach to process improvement that consists of five phases, where each phase is linked logically to the previous phase as well as to the next phase.

**downstream** – Processes or activities that follow next from the previous task or activity.

**effectiveness** – A general term used to describe an activity or process’s ability to meet the needs of the customer. An effective process successfully achieves planned outcomes in a planned manner (e.g., on time, built to specifications, value-added, etc.)

**efficiency** – A general term used to describe how resources are used to produce a given output. An efficient process is one that uses relatively few resources (e.g., funds, time, energy, etc.) to achieve planned (value added) outputs

**empowerment** – The process of supporting workers to discover and claim their power to improve their work processes.

**enterprise** – In entrepreneurial management terms, an interrelated, intuitive organizational grouping of utility and marketplace services into a single service line that is operated as a business. This natural grouping of services is run as a single business enterprise with one chief operating officer and unified financial statements and performance outcomes. Example: An information technology enterprise would consist of utility and marketplace services with a variety of IT functions such as application hosting, network management, data storage, disaster recovery, e-government, and others.

**entitlement performance** – The fastest throughput time for a single transaction that has been achieved for a given process.

**error proofing** – A process and set of techniques for anticipating, detecting and preventing errors that adversely affect product quality, process efficiency and customer satisfaction; focuses on preventing defects at the source through adherence to work practices that ensure precision in all work processes. (Also, Poke Yoke)

**errors** – In statistics, an error is not a "mistake" but rather a difference between a computed, estimated, or measured value and the true, specified, or theoretically correct value. It is the difference between the desired and actual performance and behavior of a system or process.

**failure modes and effects analysis or FMEA** – A structured approach to determining the seriousness and identifying the sources of potential failures.

**first pass yield or FPY** – The number products or services done right the first time; the percentage of finished goods that meet all customer specification and related quality criteria at the end of the work process.

**fit for use** – Products or services that meet customer expectations.

**Five S (5S)** – A system of waste elimination through workplace organization – Sort, Set in Order, Shine, Standardize, Sustain – derived from the Japanese seiri, seiton, seiso, seiketsu, and shitsuke.

**Five Whys** – A technique used to discover root causes of problems consisting of a series of questions (asking why five times) and answers, each iteration of which gets closer to the root causes of a single factor contributing to the particular defect.

**flow** – The progressive completion of tasks in the value chain to deliver products and services that meet customer requirements; optimal flow occurs when material moves through the entire process without interruption, waste or variation.

**flowcharts** – Pictures of processes that show steps, decision points and delays in a process in the order that they occur (also known as process maps and state maps).

**full-time equivalent (FTE)** – A method for converting hours worked by employees into the number of full-time-equivalent budgeted positions. For example, one FTE is equivalent to one full-time worker.

**fundamentals** – The collective routine work of the business that consumes the vast majority of an organization's resources; its core processes make up an organization's fundamentals.

**Fundamentals Management Map®** – a picture of the routine work (core processes or value streams) that must be managed for the business to achieve its goals. It defines the outcome measures and process measures used to know how well the fundamentals are being managed. It includes an organization's mission, vision and values.

**future-state map** – A flowchart showing the process as you intend it to operate.

**Genchi Genbutsu** – Japanese for a business practice of seeing a problem firsthand to understand it; values practical experience over theoretical knowledge; similar to Tom Peters’ “management by walking around,” it literally means “go see the problem.”

**golden nugget** – An unexpected opportunity for significant improvement.

**handoff** – The transfer of material or information to the next step in a process. Too many or poorly executed handoffs can be a major source of waste.

**heijunka** – A prerequisite for Just-In-Time, an inventory strategy that reduces in-process inventory, this is the overall leveling of production in terms of transaction volume and task variety over a given period of time in order to smooth out workflow and increase output predictability.

**hoshin kanri** – A strategic decision-making tool for a firm’s executive team that focuses resources on the critical initiatives necessary to accomplish the business objectives of the enterprise.

**huddle** – A facilitated, loosely scripted, daily stand-up meeting of no more than 10 minutes held by members of an intact work group to address priorities. Usually involves a visual display board.

**incidental work** – Work that does not in itself provide value to the customer but is necessary to do value-creating work. Example: a worker needs to switch from one software program to another to achieve something for the customer.

**inefficiency** – A general term used to describe the creation of waste in the production of a given output. In continuous improvement terms, inefficiency may come in the form of inconsistency, overburden and waste.

**input** – Any material, service or information that contributes to or affects the activities and results of a process.

**internal customer** – Any purchaser or user of goods or services produced within the organization. Usually refers to the next (downstream) operation in the supply chain.

**inventory** – Waste that includes any items not immediately needed by a customer or process; any items that must be stored, including raw materials; work-in-progress; and finished goods. Completed products not yet sold are the most expensive kind of inventory. Unprocessed components are the least expensive kind of inventory.

**inventory turns** – The number of times inventory can be used and replaced in a given period of time.

**jidoka** – A quality-control process that applies the following principles: detect the abnormality, stop, correct the immediate condition, investigate the root cause and install a countermeasure. It refers to the ability of any worker or machine to halt production to prevent defects and facilitate identifying and correcting process problems.

**Just-In-Time (JIT)** – A system for producing and delivering the right items at the right time in the right amounts. The key elements of Just in Time are flow, pull, standard work and Takt time; originally developed by Toyota Motor Company (Also, Toyota Production, Lean Production and Kanban).

**kaizen** – A Japanese word meaning “good change” alluding to small, incremental improvement of an activity to create more value with less waste. A kaizen event typically involves a team of five to 15 who spend three to five days improving a specific process.

**kaizen newspaper** – A tool used during a kaizen event in which the team leader or facilitator lists tasks that need to be completed and assigns people to the tasks; often a section in an A3 report.

**kanban** – An inventory control system that indicates when material or stock is needed by a process and tells an upstream supplier to send material downstream. Kanban is a “pull” system – it pulls materials and stock into the process rather than relying on a schedule that “pushes” them through the process. Production begins only when

there is a signal to produce. (Also, a visual device used by process operators to signal process states. Example: A yellow card indicating that a worker is available to process another transaction.)

**key performance indicators (KPIs)** – Measures put in place and visible to an organization to indicate the level of progress and status of change efforts in an organization.

**lead time** – The total time a customer must wait to receive a product or service after placing an order; measured from when the customer requests the service until the customer receives the service, (Also, throughput time.)

**leadership** – The competencies of empowerment, communication and accountability define behaviors that create a shared leadership model for DHS/OHA.

**Lean** – Lean is a process-management system that focuses on removing waste. Key concepts include value, value stream, pull and perfection. Common tools for implementing Lean include the 5S methodology, just-in-time, kanban, value-stream mapping, kaizen and mistake proofing or poke-yoke.

**Lean enterprise** – An organization engaged in the endless pursuit of waste elimination in all of its activities.

**line balancing** – Equalizing cycle times for relatively small units in the manufacturing process.

**listening post** – The point or points in a process where metrics are captured.

**management system** – The system an organization uses to manage the enterprise; effective management systems link individual performance to the organization's outcomes and processes through measurement; routine reviews are used to understand how well fundamentals and breakthroughs (initiatives) are being managed.

**manufacturing execution system (MES)** – A networked computing system that automates production control and process automation to bridge gaps that might appear between these functions.

**manufacturing resources planning (MRP II)** – A computerized method for planning the use of a company's resources, such as scheduling raw materials, suppliers/vendors, production equipment and processes.

**mass customization** – A production system that stresses the production of relatively small lots of customized or unique goods.

**mass production** – Large-scale, generally very standardized manufacturing practice with high-volume production and output.

**metrics** – Measurements of process, quality, cost and delivery; usually involves a scale and an instrument. Examples: To describe size of a small object, you may use inches as the scale and a ruler as the instrument; to describe process throughput for issuing a permit, you may use days as your scale and a calendar as your instrument.

**mistake-proofing** – Examining a process to uncover occurrences of human error; aims to eliminate the opportunity for error, detect the potential for error in existing processes, and prevent inadvertent human error.

**motion** – The movement of people around the workspace. Examples of unnecessary motion include excessive bending, stretching and reaching for tools or materials, which indicates a poorly designed workspace.

**muda** – Japanese for “waste;” refers to any activity that consumes resources but creates no value to the customer.

**multi-process handling** – When an employee does tasks for multiple processes sequentially that contribute to the flow of material.

**non-value-added (NVA)** – Activities that the customer is not willing to pay for.

**one-piece flow** – Ideal state for any process is to move away from traditional batching of work, whether material or information, and flow work continuously, one element at a time. This reduces many types of waste, particularly inventory. (Also, continuous flow.)

**operations** – A broad term suggesting administrative responsibilities and duties related to office functions, manufacturing, procurement, distribution, various management issues, and global accountability.

**operating process** – Core value stream of the organization.

**output** – Any product, service or piece of information produced by the activities in a process.

**outcome goals** – An organization's overarching goals (what it wants to achieve), usually highly stable over time.

**outcome measures** – Overall measurable indicators of an organization's performance relative to key goals. Outcome measures answer the question, "How will we know we are progressing toward our key goals?"

**overall equipment effectiveness (OEE)** – A measurement of the availability, performance efficiency, and quality rate of an organization's equipment.

**overproduction** – Waste created when more items are produced than are needed by the next step in a process or by the customer; costs are incurred if items are stored until the next step in the process is ready to handle them.

**pacemaker** – A device or technique use to set the pace of production and maintain Takt time.

**Pareto chart** – A combination bar chart and line graph whose bars show declining frequency of occurrence and whose line graphs the cumulative total; based on Pareto's Law, which states that 80 percent of effects result from 20 percent of causes.

**performance gap** – The difference between how a process is performing and its target performance level.

**pilot** – A form of testing that can then be observed and adjusted before full-scale implementation.

**plan, do, study/check, act/adjust (PDSA/PDCA)** – A continuous quality improvement model consisting of a logical sequence of four repetitive steps for continuous improvement and learning.

**poke-yoke** – Highly reliable methods that prevent defects; any mechanism in a Lean manufacturing process that helps an equipment operator avoid mistakes.

**positive deviants** – The most desirable points in any data set; outliers that exhibit behaviors you wish to emulate.

**preliminary meetings (nemawashi)** – Discussions involving other sections and departments to seek input, information and support for proposals or changes that would affect them.

**primary visual display** – Information centers in the workplace where hot topics and key indicators of a work group's process performance are posted and updated, usually daily; focal point for huddles.

**prioritization matrix** – A tool used to compare choices relative to impact and achievability, such as cost, service, quality and other factors. (Also, criteria matrix.)

**process** – A routine set of activities that lead to a given output; a set of steps or operations that must be performed in a specific sequence to produce a product, a service, or information for a customer.

**process map** – A diagram showing all steps required to complete a single process within a value stream identifying specific sources of waste within an individual process. Used as a tool in problem solving, this technique helps make opportunities for improvement more apparent.

**process measures** – The measures that indicate how effectively a given business process is functioning. Ideal

process measures seek to optimize cost, quality and time. Process Measures answer the question: how well is this process working?

**production leveling (heijunka)** – this is the overall leveling of production in terms of transaction volume and task variety over a given period of time in order to smooth out workflow and increase output predictability.

**product quantity (PQ) analysis** – A tool that helps employees understand the types of products their organization produces and the volume demanded by customers.

**pull system** – Operating a process such that steps are triggered only when demanded by downstream steps.

**push system** – Operating a process such that steps are triggered when outputs are received from upstream steps.

**push** – Processing large batches of work product, then moving it downstream or into storage, regardless of the pace or quantity needed by the next process; a system that does not create a smooth flow of work from one process to the next, which is the hallmark of Lean.

**qualitative metrics** – Measurements of quality or character, instead of size, quantity or other data.

**quality** – Refers to conformance to specifications and customer requirements with no errors; the quality of work in designing, producing, delivering products or services and responding to customers.

**quality assurance** – Applying constant, rigorous checks and controls throughout the value stream to continually meet product or service specifications.

**quality control** – Internal monitoring and control of project deliverables to ensure that they meet quality targets.

**quality function deployment** – A methodology in which a cross-functional team reaches consensus about final product specifications that meet or exceed customer requirements.

**quarterly target review (QTR)** – A session held every three months to review all measures and breakthroughs so problems are resolved and progress is recognized.

**responsible, accountable, consult, inform (RACI)** – A planning chart that identifies and clarifies roles, responsibilities and individual levels of participation across all activities, tasks and decisions to ensure effective operations.

**rapid process improvement (RPI)** – Planned problem-solving events designed to identify, define and implement improvements within specific operations or work area; usually conducted in small, cross-functional work teams that have some familiarity with the problem at hand. Also known as a kaizen blitz.

**redeployment** – Reassignment of employees to other departments or functions; in Lean, moving staff whose time has been freed up by process improvements to priority strategic work.

**repeatability** – A key indicator of stability within a process. Represents the probability that a process will achieve the same measured result each time it is conducted under the same conditions.

**rework** – Sending the work outputs back up the value stream to a previous process or process step to fix problems in work quality.

**risk** – Any event likely to adversely affect a project's ability to achieve the defined objectives.

**root cause** – The most basic underlying reason for an event or condition; the cause; the single verified reason why a problem or defect has occurred.

**root cause analysis (RCA)** – Problem-solving methods of identifying root causes of problems instead of addressing obvious symptoms only. An attempt to minimize recurrence of problems by directing corrective measures at root cause.

**run chart** – A performance measure of a process over a period of time to identify trends or patterns.

**scale** – The who, what and where of a process.

**scope** – The defined beginning and defined end of a process.

**service level agreement (SLA)** – Agreement between two parties regarding expectations and deliverables.

**scorecard** – A way to present visually how an organization is meeting its targets. The display for each measure uses red, yellow, and green to indicate the level of performance compared to the established standards.

**Seven Wastes** – Seven most common wastes in processes, as identified by Taiichi Ohno, father of Lean manufacturing; overproduction (ahead of demand), waiting, unnecessary transport of materials, over-processing, maintaining more than minimum inventories, unproductive movement by employees during the course of their work, and defective products or services.

**shared vision** – A comprehensive and vivid vision, usually long-term in nature, of an organization's future state.

**shine** – The third "S" of 5S. The shine aspect of the methodology involves cleaning the work area, removing trash and defining the standards of cleanliness to adhere to. It also includes repairing any broken machinery.

**silver bullet** – A not-yet-implemented countermeasure that promises to solve all problems.

**simulation** – Using a model to mimic real-world behavior.

**SIPOC** – Suppliers, inputs, process, output and customers; a Six Sigma mapping tool to think through all elements of a process, starting with customers and working upstream to suppliers.

**Six Sigma** – A set of analytical tools applied to process data with the primary aim of reducing output variation by defining, measuring, analyzing, improving and controlling. Literally, six standard deviations between the mean and the nearest specification limit; also 3.4 defects per million opportunities.

**SMART** – Simple, measurable, achievable, results oriented, and timely; a set of criteria for developing goals.

**smoothing** – Keeping the rate of output volume as constant as possible.

**sort** – The first "S" in 5S; involves separating needed from unneeded items, eliminating the unnecessary ones and clearing out the clutter.

**spaghetti chart** – A map of the physical path taken by a specific product or service as it travels down the value stream. Its name came about due to the typical chart's resemblance to a plate of spaghetti.

**standard work** – A precise description of each work activity specifying the cycle time, takt time, and work sequence of specific tasks and the minimum inventory on hand needed to conduct the activity.

**standardize** – The fourth "S" of the 5S methodology that involves maintaining the cleaned and organized environment by setting a regular cleaning and maintenance schedule; the step at which the previous three S's are standardized.

**strategy** – The path chosen to move toward a desired end state.

**strategy deployment (hoshin kanri)** – A strategic decision-making tool for a firm’s executive team that focuses resources on the critical initiatives necessary to accomplish the business objectives of the enterprise.

**succession development** – The process of retaining, identifying, finding, assessing, and preparing suitable employees for key positions to ensure the least possible disruption to an organization’s effectiveness. This is important because it often takes years of training to develop effective senior managers.

**suggestion system (teian)** – A proposal, proposition, or suggestion. A teian system can be likened to a system which allows and encourages workers to actively propose process and product improvements.

**sustain** – The fifth “S” of the 5S methodology. The sustain aspect of the methodology involves maintaining the 5S approach to work, ensuring that the method develops deep roots in the organization and establishing it as the normal way of doing business.

**Takt time** – The pace at which work must be completed to meet customer demand. Process time divided by Takt time equals the number of workers required to produce a specific product or service. German for “pac” or “beat.”

**target performance** – The desired level of process performance, as defined by the customer.

**theory of constraints (TOC)** – The output of any system consists of a series of steps where the output of one step depends on the output of one or more previous steps will be limited, or constrained, by the least productive steps.

**throughput time** – The total process time as experienced by the customer.

**total quality management (TQM)** – A quality control system focused on the correction of quality issues before they are permitted to subsequently be passed on for further processing. TQM systems are often "built-in" to manufacturing processes.

**touch time** – The time spent actually working, hands-on, on a particular step in a process, as compared to wait time that occurs between steps. Touch time plus wait time equals cycle time.

**transactional process** – Processes in non-manufacturing environments. Examples include order entry, engineering, purchasing, financial closings, request for quotes, etc.

**transportation** – Transport waste includes the unnecessary movement of goods, materials and information and inefficient workspace planning.

**two-bin system** – An example of both visual management and the pull system, whereby two bins or containers are used trigger reorder of parts or materials.

**value** – A capability delivered at the right time and price as defined by the customer.

**value-added (VA)** – A step in a process that contributes to what customers want out of a product or service; something customers would pay for.

**value characterization** – the process of attaching value judgments such as VA, NVA, CORA, CORC, and COPQ to process steps.

**value-enabling** – A non-value-added step that is required for some reason.

**value stream** – The sequence of activities, materials and information required to bring a product or service to a customer; all the steps – both value-creating and non-value-creating – required to complete a product or service from beginning to end, e.g., from conception to launch or from service request to delivery.

**value stream mapping (VSM)** – Similar to a process map; a method of viewing the combination of process flows that create a system; essential in understanding how a process fits with upstream and downstream processes. A map that is the sum of many process maps, usually represented in less detail; a picture of how

material and information flows from suppliers through manufacturing to the customer; includes calculations of total cycle time and value-added time. Typically written for the current state of the value chain and the future, to indicate where the business is going. (Also, value chain mapping.)

**value stream owner** – The point person who serves as an advocate for the processes identified in a particular value stream.

**variation** – Differences that occur in process outputs intended to be the same. There are two types: common cause and special cause. Common cause variation is predictable within a certain process-specific range, even though it is caused by random fluctuations in factors that contribute to the process. Special cause variation results from specific factors not always present in the process and not predictable either in regards to timing or magnitude of impact. The degree to which actual results differ from an established standard. Variation can occur within a process or in any characteristic of a product or service and is the primary source of defects and waste.

**visual controls** – Visual signals in the workplace designed to manage or control operations; visual controls ensure that the status of the system can be understood at a glance by everyone involved. A graphic indicator (e.g., sign, chart, real product sample) used to visually communicate important information in the workplace. (Also, **Andon**)

**visual management** – A system enabling anyone to quickly spot and correctly interpret abnormalities in a workplace or process, regardless of their knowledge of the process; a tool and a concept referring to employees, operators, and managers being able to manage every aspect of a process using visual data, signals and guides.

**voice of business (VOB)** – Internal feedback on operations; typically efficiency, productivity and internal quality.

**voice of the customer (VOC)** – A systematic, institutionalized approach to eliciting and analyzing customers' requirements, expectations, level of satisfaction and areas of concern, both stated and unstated; VOC can be captured through discussion, interviews, surveys, focus groups, customer specifications, observation, warranty data, field reports, complaint logs, etc.

**waiting** – Delays including holdups due to delivery problems and downtime and process and design changes. Usually caused by unrealistic or poor scheduling and process delays.

**work breakdown** – The complete set of phases, activities and tasks required to undertake the project and meet the full requirements of the customer.

**work cell** – A logical and productive grouping of people, equipment and information designed to function within a suite of similar processes; a work team with responsibility for a particular process or product. (Also, work unit)

**working sequence** – The sequence of operations in a single process which leads a floor worker to produce quality goods efficiently and in a manner which reduces overburden and minimizes the threat of injury or illness

**workplace** – Place where the process tasks physically occur and value is added (also, **gemba**). When an abnormality occurs or a manager needs to know the current state of operations, gemba is a source of information.

**yellow brick road** – The shortest or fastest path a transaction can take through a process flow chart. It can also be thought of as the path taken when everything works as intended. (Also, "critical path.")