



New Synergy Group

Systems Thinking... Enterprise Performance

New Synergy Group: Corporate Presentation

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Overview

- Mission of New Synergy Group
- Challenges facing software-intensive industries, and key target areas for facing those challenges
 - People, Processes, Systems, and Tools
- Value proposition of New Synergy Group
- Professional Services from New Synergy Group
 - Assessment
 - Training
 - Workshops
 - Coaching and consulting
 - Intellectual property development
 - Business strategy development to drive product vision and development cycle
- Benefits of services from New Synergy Group



Mission of New Synergy Group

Help our software-intensive enterprise clients:

- Apply agile methods in conjunction with lean methods and systems thinking in order to improve productivity and quality of their people and teams, and improve software lifecycle processes that result in market-winning products and solutions.
- Develop business strategy in order to properly drive their product vision and development cycle.
- Develop intellectual property in a cost-effective way.



Challenges facing Software-Intensive Industry

- Failure to meet the real requirements of users
- Delays in time to market
- Cost overruns
- Low quality, productivity, or “Productivity x Quality”
- Failure to meet important goals:
 - Performance
 - Usability
 - Scalability
 - Security
 - Extensibility, etc.
- These challenges *will* continue to be with us, as the bar is always rising:
 - Ever more ambitious and complex software systems
 - Rising expectations of users
 - Fierce global competition to deliver innovative solutions and services in shorter cycle times
 - Increasingly volatile business environment
 - Fast changing technology platforms and interoperability with legacy applications
 - Little change in human nature!



Key Target Areas for Addressing Endemic Challenges Facing the Software Industry

Target Area	Effectiveness	Efficiency	Quality
People and Teams			
Processes and Project Management			
Systems: Lean Thinking and Methods, Systems Thinking			

- Having the right people that form high-performance teams is the most important contributor to effectiveness, productivity and efficiency, and quality of results.
- Right people and high-performance teams always trump processes and tools.



People, Processes, Systems and Tools

- Improved software processes and project management come next, but may not be enough.
- Fundamental change in systems responsible for managing work in the enterprise may be required. Examples of such systems are:
 - Innovation management systems
 - Project management systems
 - Operations support systems
 - Customer service systems
- Solutions addressed with systemic changes are often more enduring than those accomplished by changing software project tasks, schedule or resources, or by changing the software development process.
- Advanced tools (such as integrated development environments, parallel branch and merge configuration management, integrated project management tools, automated testing, project portfolio management) are of value.
 - However, they should be deployed only after addressing the target areas of people and teams, processes and project management, and systems.



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Systems Thinking... Enterprise Performance

Value Proposition: New Synergy Group Helps Software-intensive Enterprises

- Help develop business strategy to drive product vision and development cycle
- Accelerate the software development cycle and reduce the time-to-market
- Improve the predictability of software development schedule
- Increase the effectiveness and productivity of their people and teams
- Improve the value of software delivered to their customers
- Improve the software quality
- Improve their software projects, processes and organizational dynamics
- Develop intellectual property rapidly in a cost-effective way



What We Do at New Synergy Group

- Offer assessment, training, workshops, coaching and consulting, and management services in five areas:
 - Business strategy development to drive product vision
 - Effectiveness of people and teams
 - Agile processes
 - Lean methods and Systems thinking
 - Intellectual Property Development
- Apply lean methods and systems thinking approaches that are *holistic* in nature, and complement *analytical thinking* represented by software project management and process management disciplines.



Service offerings from New Synergy Group Benefit Enterprises that Develop:

- **Software *products* and *services* for general market:**
 - Product companies offering software products or software-intensive products
 - Providers of *software as service*
- **Software solutions for their own internal use:**
 - Banks, financial services and insurance companies
 - Telecommunication service providers
 - Hospitals and health care providers
 - Manufacturing and distribution companies
- **Client-specific software solutions:**
 - IT services companies
 - IT solutions companies



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Systems Thinking... Enterprise Performance

New Synergy Group Helps Your Enterprise Improve Productivity, Efficiency and Quality

- **Assessment**
 - Identify and analyze people and team issues in order to mold them into highly effective, high-performance, agile teams
 - Identify and analyze the problems with your current processes and systems for innovation, project management, product and solutions delivery
- Define appropriate processes and systems for managing projects for software products and solutions development
- Develop and implement a change management plan for transitioning from the current software projects, processes and systems to new projects, processes and systems
- Improve specific processes and systems related to software-intensive projects
- Help develop intellectual property (patents) by working with your technical staff
- Help develop business strategy so that it can drive product vision and development cycle



New Synergy Group Services

	Assessment	Training	Workshops	Coaching, Consulting
Business strategy development to drive product vision	√	√	√	√
Effectiveness of people and agile teams	√	√		√
Agile Software Development Processes and Project Management	√	√	√	√
Lean Methods and Systems Thinking for Software Development	√	√	√	√
Intellectual Property Development	√			√



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Systems Thinking... Enterprise Performance

6 Practice Areas Supporting Agile-Lean Framework

Feature-Driven Develop	Quality First	Backlog Ordering	Transparency and Feedback	Vision, Releases, Sprints workflow	Lean Methods
<p>Business need analysis; Feature specs; Non-functional requirements; Feature teams Prototypes; Mock-ups</p> <p>Continuous integration; Build automation; Architecture sprints; Refactoring</p>	<p>Design review; Code review; Test case review; Layered testing: Feature Tests, Regression Tests, System tests, Acceptance tests, Beta tests; Defect management; Test-driven development</p>	<p>Business value & Business risks estimation; Tech effort & Tech risks estimation; Backlog ordering based on the DIVE criteria: Dependencies, Insure against Risks (Business and technical), Business Value, Estimated Effort</p>	<p>Burn-down and burn-up charts; Daily Scrums; Sprint Review; Sprint Retrospective; Daily Availability, Capacity and Workload calculator</p> <p>Core, Near-to-Mid Term, Mid-to-Long Term Legend: Agile practices, <i>Lean practices</i></p>	<p>Time-boxed sprints: Sprint Backlog; Sprint planning workshop; Ready-Ready checklist; Done-Done checklist, Weekly Mini-Sprints; Scrum of Scrum; Time-boxed release cycles: Release data sheet, Release backlog, Release planning workshop Product vision: Elevator pitch, Product brochure, Product roadmap, Trade journal review, Product backlog</p>	<p><i>Reduce waste</i>; <i>Stop Starting Start Finishing</i>; <i>Reduce multi-tasking</i> <i>Level the work</i>; <i>WIP & Queue control</i>; <i>Reduce Lead time</i>; <i>Kanban boards, pull mgmt</i></p>



Training Services from New Synergy Group

- TS-1. Improving effectiveness of people and building high-performance, agile teams
- TS-2. Agile product, project and process management
- TS-3. Agile stakeholders education
- TS-4. Lean Methods and Systems thinking technique for software process and project improvements

All Training services are customized to our client-specific needs



TS-1. Improving Effectiveness of People and Building High-Performance, Agile Teams

- **Behavior patterns for effective individuals, such as:**
 - Work Ethics and professionalism
 - Self-accountability and self-discipline
 - Passion for success and focus on results
- **Competencies for individuals and teams, such as:**
 - Cross-functional and cross-component teams to take shared ownership of results
 - Motivation, Effective action management, Effective problem solving
 - Effective communication, Zero defect closures, Team work, Root cause mindset
 - Interpersonal skills, Conflict resolution, Exception management
 - Multi-threading capabilities, Effective decision making
 - Developing eyes for seeing waste and reduce or obliterate queues of work
 - Self-organized teams of self-disciplined team members
- **Effective and high performance interfaces between agile teams and the rest of organization**



TS-2. Agile Product, Project and Process Management

- Need and rationale for agile product, project and process management
- Agile core *values* and core *principles*
- SCRUM framework
- Agile product management: Product and release backlogs, feature prioritization based on business value, risks, estimated effort, etc.
- Agile practices covering product management, project management, feature analysis, architecture and design, feature-driven development, QA
- How to determine when agile software project management techniques fit well to a specific situation, and equally importantly, when they don't.
- How to use agile development methods and process for a global software development and delivery model
- Scalability issues and scalability techniques for agile methods, and other advanced topics
- Application of lean methods and systems thinking to complement agile methods



TS-3: Agile Stakeholders Education

- An enterprise will get only limited benefits if all stakeholders are not properly educated about how agile teams work and produce results, and how to properly interface with them. For example,
 - If the Project Management Office (PMO) measures progress with artifacts, documents and intermediate deliverables (e.g., percentage of design tasks completed)
 - If senior executives give direct action items to developers to crank out a "cool" new feature to a new "hot prospect" in the middle of a sprint
- All agile stakeholders (including PMO, regulators, compliance staff, legal staff, senior executives, marketing, etc.) need to be educated on proper interactions/interfaces with agile teams and appropriate organizational structures and dynamics.
- Human Resources staff needs to be educated on career planning and career management for agile team members; career development can no longer be based on functional silos (developer, QA, project manager, etc.).
- Legal staff needs to be educated on agile methods and legal implications



Lean Thinking Inspires Agile Movement

- Many ideas of agile movement of 2000's arose within lean manufacturing movement in 1980's and lean design in 1990's in Japan
- **Systematic elimination of waste:** Delete steps that don't deliver customer value
 - Little-value compliance activities, little or no-value work are not done.
 - Requirements that don't get implemented are not analyzed.
- **Flow thinking:** Keep activities flowing from one to the next step, without delays for approvals.
- **Pull thinking:** Waiting for customers to ask for products, instead of building large inventories and then pushing them to customers.
 - Ex. Dell operates a pull system, waiting until a customer's order pulls the product through the system.
- **With lean thinking, productivity gains of 3x to 4x are possible**
 - Many "improvement" initiatives (ISO, CMM, Six Sigma, TQM, BPR, PMBOK, etc.) have added tons paperwork and meetings.
 - In many ways, Agile Movement is a counter movement to heavy processes: CMM, CMMI, ISO, TQM, Six Sigma, PMBOK, etc.



TS-4. Lean Thinking and Methods for Software Process and Project Improvements

- Origin and history of lean thinking
- Lean principles and policies
 - Minimize waste
 - Minimize multi-tasking and context-switching
 - *Stop-Starting-Start-Finishing*
 - Level the work
 - *Kanban* – Visual signaling and pull management
 - WIP control and queue management
 - Maximize the value flow (minimize end-to-end lead time)
 - Find and eliminate the root cause
 - *Kaizen* – Continuous improvement

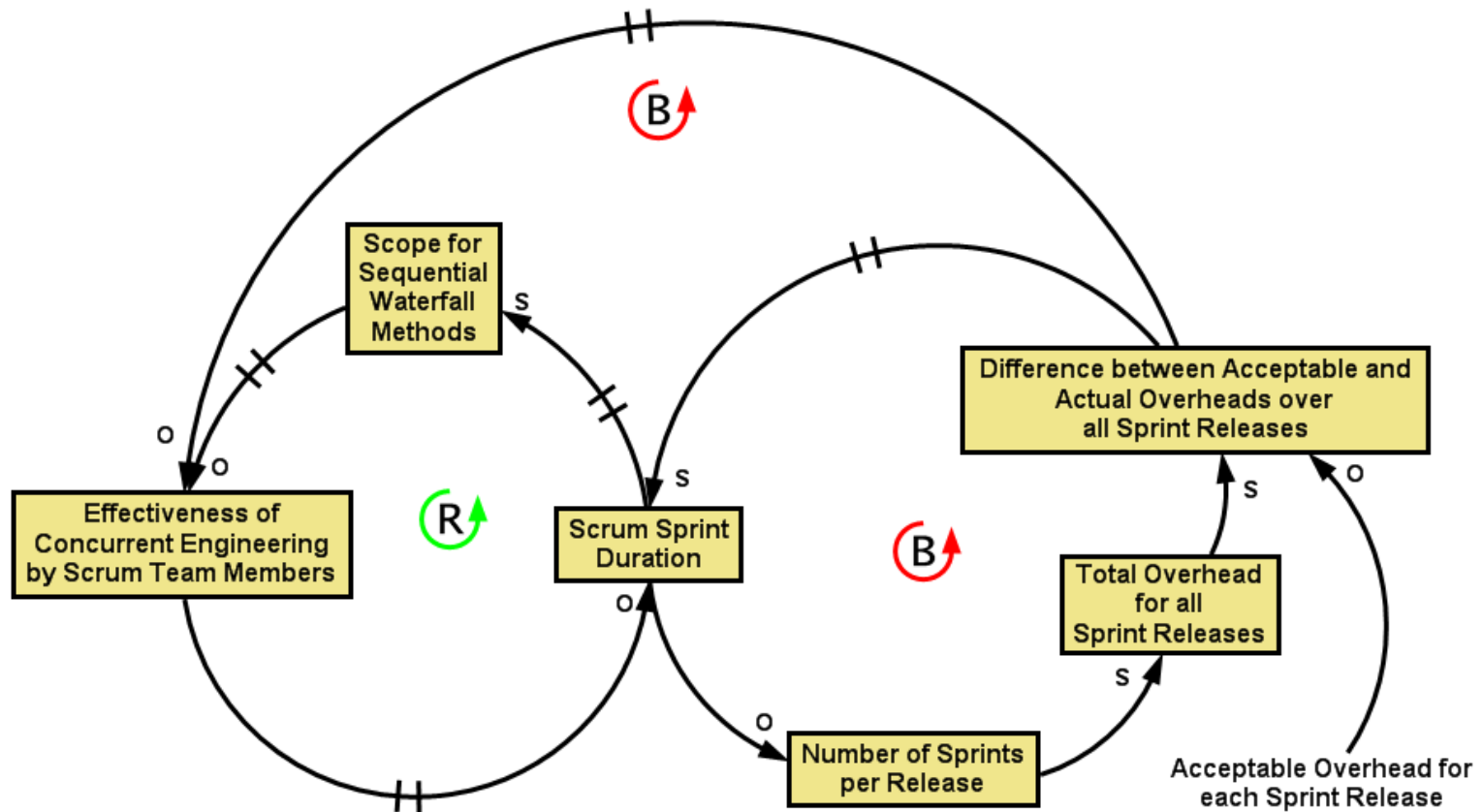


TS4. Systems Thinking and its Application to Agile Software Project Management

- Fundamentals of systems, feedback, delays
- Causal Loop Diagrams (CLDs)
- System archetypes encountered in
 - Software projects
 - Software processes
 - Software people and team dynamics
- Leverage points for addressing system archetypes in software projects, software processes, and people and team dynamics, and their use in developing solutions
- How to use Systems Thinking to complement and improve agile project management, process framework and practices



Example of Causal Loop Diagrams as Thinking Tool:





Benefits of Customized Training Services

- Common vocabulary and lingua-franca for communication among all stakeholders
- Improved collaboration and decision making among all stake holders.
- Basic knowledge about agile product management, agile project management, SCRUM framework, lean thinking and methods, systems thinking, and their application for improving organizational dynamics and addressing systemic problems
- Build the foundation for improving effectiveness, self-discipline and productivity of people
- Complete the prerequisite for client-specific agile workshops
- Lay the foundation for building high performance, self-organized teams
- Ensure smoother interactions among agile development teams and all other stakeholders by educating the stakeholders
- All these benefits can be further enhanced with consulting services



Workshop Services from New Synergy Group

- Facilitate the development of product vision; product, release, sprint plans and backlogs; information radiators design; capacity planning; team formation; and get Scrum teams ready-ready for sprints for client-specific product or solution development
- Training services from New Synergy Group usually precede its workshop services
- **Workshops conducted**
 - WS-1. Product Envisioning Workshop
 - WS-2: Release Planning Workshop
 - WS-3: Sprint Planning Workshop



WS-1. Product Envisioning (PEN) Workshop

- PEN workshops: Goals, Methods, Deliverables
- Product business case, key market segments and customers, market window of opportunity
- Product Vision Box
- Elevator Pitch
- Trade Journal Reviews
- Discuss need for any prototypes and mock-ups
- Product Roadmap
- Identify feature areas and feature themes, and many key features
- Preliminary competitive analysis
- Determine Kano Model parameters
- Constraints on product, especially Release 1



WS-2. Release Planning (RP) Workshop

- RP workshops: Goals, Methods, Deliverables
- Decide the Release goals
- Develop Release Data Sheet (RDS)
- (Re)-inventory of all features, non-functional requirements and all major work items for the next release
- Business value (re)-estimation of features and non-functional requirements for the next release
- Business and technical risk (re)-estimation of features and non-functional requirements
- Coarse-grain re-estimation (feature points) for features for the next release
- Coarse-grain re-estimation for all work items other than features in staff-days
- Decide the duration of sprint time-box



WS-3. Sprint Planning Workshop

- Goals, Methods, Deliverables
- Prepare a well-groomed product backlog containing items that are likely to be worked on in the next sprint.
- Identify sprint workload: Identify work items as candidates for the next sprint extracted from the next Release backlog
- Do coarse-grain capacity planning
- Split large work items for leveling the work
- Fine grain estimation of effort for work items by dividing work items into smaller tasks for accurate fine-grain estimation
- Prioritize work items for the next sprint based on business value, estimated effort and ROI, risks, and dependencies and conflicts
- Identify all information radiators needed and how to implement them



WS-3. Sprint Planning Workshop

- Review and finalize Sprint Ready-Ready and Done-Done checklist templates
- Perform fine-grain capacity planning to ensure that the workload can be performed by available resources and also match with their skill sets
- All items in Sprint backlog developed are discussed by Team members, and most items are individually assigned, especially those with high priority.
- Fill out the details of the Read-Ready checklist template, note any gaps for corrective action before the actual sprint starts.
- **Deliverables:**
 - Fully characterized Sprint backlog with most assignment of individual team members
 - Filled-out Ready-Ready checklist template and any corrective gaps



Benefits of Workshop Services from New Synergy Group

- Develop client-specific product or solution vision and roadmap, and coach client staff in these areas
- Develop backlogs and plans for product, next release and next sprint, and coach client staff in these areas
- Develop and help implement agile project templates to work with client-specific agile project management tools, and coach client staff in these areas
- Develop and help implement ready-ready and done-done templates, and various information radiators for client-specific agile project, and coach client staff in these areas
- Facilitate sprint planning, daily Scrums, sprint reviews and retrospectives



Coaching and Consulting Services from New Synergy Group

- CS-1. Improve effectiveness of individual team members and team performance
- CS-2. Identify specific issues with your enterprise, and develop associated benefits and business values as the issues are resolved
- CS-3. Develop and implement solutions to the issues identified
- CS-4. Select software suppliers and solution vendors
- CS-5. Implement interaction and collaboration systems
- CS-6. Apply lean thinking and methods and systems thinking approach to resolve persistent, systemic issues



CS-1. Improve Effectiveness of Individual Team members and Agile Team Performance

- Identify specific issues related to effectiveness of individual team members and team performance, analyze the root causes, and help resolve those issues.
- As required, apply systems thinking to address systemic, persistent issues in these areas.
- Examples of specific issues with people and team performance:
 - How to build self-organized teams consisting of self-disciplined team members?
 - How to be a servant leader in an agile development organization?



CS-2. Identify Specific Issues with your Enterprise, and Develop Associated Benefits and Business Values as the Issues are Resolved

- How to transition from traditional scope-driven development to a fixed time-boxed, agile development?
- How to scale up agile teams from where all members are co-located to a distributed model where teams are in multiple locations across different time zones?
- How to scale up agile development projects from small teams (under 20 people) to much larger teams of 100 to 500 people?
- How to combine the advantages of high productivity agile development with cost-effective, off-shore development and global delivery models?
- How to customize specific agile practices to your enterprise?
- How to develop a learning organization that continually improves itself based on visibility, transparency and frequent feedback of critical measures
- How to properly use agile product management, project management, development and quality assurance efforts in each agile iteration?
- How to embed quality in the development effort itself so it is not the responsibility of solely the quality assurance team?



CS-3. Develop and Implement Solutions for Issues Identified

- Define the new target project plan, processes, and organizational systems for product management and project management covering the entire software lifecycle; define its values and principles; define its process framework, practices and templates – all customized to your enterprise culture.
- Identify likely areas of resistance, obstacles or hick-ups and how to overcome. These obstacles may be due to lack of knowhow or cultural or organizational or systemic. Help define and implement a pilot project (if warranted) to test and refine the transition plan
- Develop and implement a change management plan to transition from the current project, program, process or organizational systems to the new target project, program, process, or organizational systems.



CS-4. Select Software Suppliers and Solution Vendors

Help you identify, qualify, evaluate and select software suppliers and solutions vendors, including agile development and management tool vendors, as well as vendors qualified for global software development and delivery.

- Define and validate requirements
- Survey vendors and prepare a short-list for more detailed evaluation
- Conduct evaluation projects or pilots for selecting vendors
- Help negotiate licensing and professional services terms and conditions



CS-5. Implement Interaction and Collaboration Systems

- **Determine how to create and implement interaction and collaboration systems in support of your agile product and project management and agile process framework**
 - Such Interaction and collaboration systems are likely to use integrated project management and defect tracking tools, customer support tools, time-boxed driven agile iteration management, blogging and micro-blogging, and wikis.
- **Implement agile product management systems:** Determine how to create and implement an agile product management system in support of your agile project management system and agile process framework.
- **Implement software delivery, support and maintenance systems:** Determine how to implement disciplined, repeatable production systems for software product or solution delivery, deployment, customer support and maintenance.



CS-6: Apply Lean Thinking, Systems Thinking to Resolve Persistent, Systemic Issues

- Apply lean thinking and methods to eliminate and reduce waste and queues, improve productivity and throughput with better flow and pull systems, etc.
- Apply systems thinking approach to resolve specific persistent systemic issues (system archetypes) associated with your project management systems, software process framework and practices, and people and team dynamics issues.
- Evaluate specific solutions for your enterprise from many options by using Causal Loop Diagrams (CLDs)



Benefits of Coaching and Consulting Services from New Synergy Group

- Improved collaboration among all stake holders: Customers, Product management, Project Management, Software Development, Quality Assurance, Customer Support, and Business Executives
- Improved decision making
- Increased effectiveness, self-discipline and productivity of people
- High-performance, cross-functional, self-organized agile teams
- Improved agile product management
- Improved agile project management
- Ability to apply lean thinking and methods, and systems thinking for improving organizational dynamics and addressing systemic problems (system archetypes)



Challenges in and Cost of Intellectual Property Development

1. Perform creative and novel work and write basic technical documents capturing the idea.
 - Requires serious commitment of time and effort of your creative technical staff
 - Write technical drafts describing innovations is usually not the cup of tea for many talented technical staff members
2. Work with a patent attorney to convert the basic technical documents to a legal patent disclosure for filing with USPTO or equivalent foreign authority for foreign patents. This step alone typically costs around \$10,000.
3. Prepare response to comments and feedback from the USPTO examiner which may come after 2 to 3 years
 - Often many or all claims in your patent disclosure may get rejected.
 - It is now up to you to decide whether and how to develop your response, and re-file the revised patent disclosure with USPTO.
 - Note that Steps 2 and 3 may need to be repeated multiple times, adding considerable additional expenses.

The entire sequence of Steps 1, 2 and 3 (and iterations between steps 2 and 3) is an expensive and time consuming process requiring \$20,000 to \$30,000 expenses per patent



Technical Expertise of New Synergy Group

- Computer Science
- Software Engineering, Processes and Practices
- Information Technologies and Services
- Computer and microprocessor architectures
- Very Large Scale Integrated (VLSI) systems
- Digital Television and Digital Media
- Internet, Web Technologies and Applications
- Telecommunication
- Internet-based E-Commerce and Business Models



IP Development Services from New Synergy Group

- Work with your technical staff to elicit details of their inventions, help them see unusual or subtle aspects, and help draft new invention disclosures.
- Search patent databases, perform prior art search and its technical analysis, and provide preliminary guidance regarding the patentability of inventions under review.
- Assist with activities related to the development and generation of patent applications.
- Work with your patent attorney or patent agent to strengthen your patent applications with claims that are as broad as possible.
- Work with your technical staff to prepare response to comments and feedback from the USPTO examiner. This often requires detailed technical analysis and comparison with the existing art cited by the USPTO examiner.
- Perform technical analysis and review of patents to assist your patent attorney and legal team in patent litigation defense.
- Offer consultative help to improve the intellectual property process.
- Help you reduce the cost of actual patent disclosure preparation, and also filing costs by working with low-cost alternatives.



Benefits of Intellectual Property Development Services from New Synergy Group

- Generate valuable patent ideas that would have been overlooked or lost otherwise.
- Reduce the opportunity cost by off-loading your technical staff members from the tedium of patent writing so they can focus on innovation and new product development.
- Move rapidly and accelerate the patent development process in order to not miss the window of opportunity; otherwise, someone else may have already filed a competing patent ahead of you.
- Reduce the cost of patent draft preparation and patent filing. It is our goal to reduce the typical start-to-end cost of \$25,000 per patent by at least a factor of 2, saving you a very significant amount of money.
- Help increase the market valuation of your enterprise with a rich patent portfolio, and thereby gain very powerful competitive advantage (prevent or reduce competitive threats), and also get revenues from licensing your patents should you decide to do so.



Summary of Benefits of Services from New Synergy Group

- B1. Improved effectiveness of people and agile teams
- B2. Improved project management
- B3. Improved process management
- B4: Development of product vision, product/release/sprint plans and backlogs, information radiators
- B5. Improved flow and pull of work, and reduced waste with application of lean methods
- B6. Improved organizational dynamics with systems thinking
- B7. Timely and cost-effective development of intellectual property



B1. Improved Effectiveness of People and Agile Teams

- Assessment, training and consulting services customized to your enterprise that enables you to cultivate and nurture highly motivated and effective people as team members of high-performance, agile teams.
 - How to work as cross-functional, cross-component, self-organizing teams of self-disciplined members.
 - How to work smart and achieve results; professional/technical knowledge is necessary but not sufficient.
 - How to learn and apply certain competencies that are essential to complement professional knowledge, such as problem solving skills, decision making, conflict resolution, team work, effective communication, self-discipline, 100% defect-free closures, etc.



B2. Improved Project Management

- Assessment, training, coaching and consulting services customized to your enterprise that enables you to better manage software projects with substantial improvements in productivity, cycle time and quality.
- The word “software project” covers:
 - Software-intensive products for external market (packaged software or hosted software as service)
 - Software-intensive client-specific solutions
 - Software-intensive solutions developed for in-house use



B3. Improved Process Management

Assessment, training, consulting and management services customized for your enterprise that enables you to better manage existing software development processes, or develop new processes, or transition from the current to new processes covering the entire software development life cycle:

- Product management
- Requirements engineering
- Architecture and design
- Code development and unit testing
- User documentation development (Installation, Administration and End User Guides, On-line Help, etc.)
- Testing and quality assurance
- Product or solution delivery to customers
- Post-delivery customer support
- Business value realization by customers



B4: Development of Business Strategy to drive Product Vision, Product Release and Sprint Plans

- Conduct client-specific workshops to:
 - Develop business strategy: Mission, vision, strategic objectives and initiatives
 - Develop client-specific product or solution vision and roadmap, and coach client staff in these areas
 - Develop backlogs and plans for product, next release and next sprint, and coach client staff in these areas
 - Develop and help implement agile project templates to work with client-specific agile project management tools, and coach client staff in these areas



B5. Improved Flow and Reduced Waste with Application of Lean Methods

- **Systematic elimination of waste:** Identify and eliminate steps that don't deliver customer value, such as:
 - Little-value compliance activities, little or no-value work
 - Requirements that don't get implemented are not analyzed.
- **Flow thinking:** Keep activities flowing from one to the next step, without delays for approvals. This requires techniques such as:
 - Eliminate or reduce queues between different activities (such as analysis, design, code developing, testing, etc.) by fostering cross-functional, self-organizing teams.
 - Reducing the variability of batches of work by making small batches limited to time-boxes. For example:
 - Large requirements broken down to smaller use case scenarios or user stories, and fully completed in a small 2 to 8 weeks of time-boxed iteration (called Scrum sprint).
- **Pull thinking:** Waiting for “customers” downstream to ask for products, instead of building large inventories and then pushing them to customers.
 - Avoid creating a large backlog of analyzed requirements, many of which will never get designed and completed as the market changes.
 - Analyze requirements “just-in-time” within a Scrum sprint time-box.



B6. Improved Organizational Dynamics with Systems Thinking

- Training and consulting services customized to your enterprise to better manage existing organizational systems or to develop new systems or to transition from current to new systems, and to address **system archetypes** (recurring or endemic systemic issues)
- Without the root cause diagnosis performed for resolving system archetypes, solutions tend to be short-lived, old system reasserts itself and old problems resurface.
- Some well-known system archetypes in software-intensive enterprises:
 - Attempting to remove errors from a legacy software system causes the number of latent errors to increase.
 - Heroics to resolve a crisis in software project undermines the ability to develop long-term and enduring solutions to the crisis.
 - After the initial enthusiasm and commitment to software process quality generated by winning a software quality certificate or certain process maturity level grade, software process compliance erodes resulting into a downgrading in the software process maturity level.
 - Many software projects spend 95% resources on completing the first 95% of the project, but always need additional 95% resources to complete the remaining “5%” of the project! ... and that last 5% of the work never seems to end.



B7. Timely and Cost-effective Development of Intellectual Property

Assist your creative and innovative technical staff members to:

- Rapidly produce innovative ideas that become the basis for intellectual property.
- Offer assistance in developing intellectual property cost-effectively.
- Help you win the race against time by helping you develop and file patent disclosures as soon as possible; each day delayed increases the risk of someone else filing a competing patent ahead of you.



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