## **Powering Business Value**

February 4, 2014

## Dual Track Agile A Guide for Product and Project Managers

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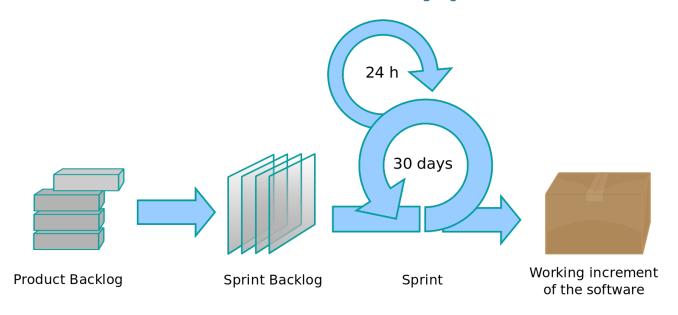
## John E. Parker (Introduction)



- Chief Executive Officer, Enfocus Solutions Inc.
- Previous Positions
  - EVP and Cofounder, Spectrum Consulting Group
  - o EVP and CTO, MAXIMUS Inc.
  - Outsourced CIO for HSHS (Large Healthcare System)
  - KPMG Partner
- Expertise
  - IT Strategic Planning
  - Business Analysis
  - Product Management
  - Recovering Troubled and Challenged Projects
  - Enterprise Architecture
  - Development Methodologies (Agile, Waterfall, RUP, Design First, FDD, TDD)
  - Financial and Cost Benefit Analyses
  - Business Process Improvement, Reengineering, and Management
  - Business Architecture



## Agile is an effective delivery process!



However, agile is not effective for discovering what to build.



- It is commonly estimated that between 70-90% of new products fail.
- Most products fail not because of poor engineering or development but because the customer or market need were not understood.
- Agile has had minimal impact on the failure rate on new products.
- Working software is the primary measure of success for agile.
- However, without user adoption, working software provides no value.



#### Delivering Value

- User stories do not work well for defining business and customer needs.
- Agile lacks methods for measuring product success.

#### Filling the Role of the Product Owner

- Agile Product Owners often do not represent user needs.
- It is impossible to be 100% available to the team and perform external product management responsibilities.

#### Design

- It is difficult to envision the big picture when building incrementally.
- o Finding the right level of requirements and design documentation can be challenging.
- User experience design is often ignored or overlooked in agile.

#### Managing the Backlog

- Grooming and managing the backlog is a time consuming activity.
- There is no good method to validate items in the backlog.
- Large items in the backlog have to be split to fit into sprints and may lose their original intent.



## Reducing the High Cost of Agile Development

- Agile is delivering increased customer satisfaction and higher quality for most companies but has not resulted in cost savings.
- Agile has not resulted in cost savings, because requirements are often developed using code instead of using more cost effective methods such as prototypes.
- Many needs are not validated when placing stories in the backlog. Writing code to validate needs is very expensive.
- According to a recent Voke brief, The practice of analyzing and refining requirements in source code is an expensive practice and could lead to significant schedule delays and higher costs.
- According to Standish Group research, 67% of Features are rarely or never used.
   Better validation and prioritization methods can have a significant impact on project and ongoing maintenance costs.
- Many Agile Coaches are now recommending that Teams spend 10% of their time grooming the backlog. This is certainly better than not grooming the backlog but still very costly and reduces overall velocity.



## **Balance Discovery with Delivery**

### **Discovery**

Understanding the Right Solution to Build





## What is Dual Track Agile?

### **Discovery Track**

Discover business and customer needs and generate validated product backlog items.

## **Delivery Track**

Develop releasable software based on validated backlog items.



## Why the Discovery Track?

To evaluate market opportunities, reduce new product risk, and put the right things on the product roadmap.

#### **Answers the questions:**

- Who is the customer?
- What is the customers' problem?
- How will solving this problem help our business?
- How will success be measured?



#### **Benefits of Discovery:**

- Elimination of Features with Little or No Value—focuses on validating needs and achieving a good user experience.
- Less Rework—reduces the number of iterations to reduce time and costs.
- Cost Effective Validation—validates ideas in the fastest, least expensive way.
- Better User Experience—validates prototypes instead of coding to validate ideas.



## **Dual Track Agile Moves Beyond Staggered Sprints and Design Spikes**

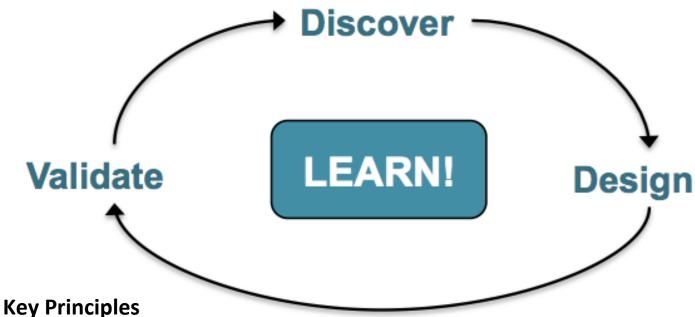


- Discovery is much more than design. Many items that are discovered should never be designed or built.
- Developers and customers often struggle with communications. Developers are concerned that too much direct user involvement will slow velocity.
- Many discovery activities do not fit easily into a sprint. Building should be delayed until the need has been validated.
- The rapid pace of UX design in the agile world often leads to shortsighted design decisions. Focusing on addressing the immediate needs of particular user stories within the limits of a sprint can lead to neglect of larger design questions, which can come back to haunt UX designers later.
- Design spikes are very disruptive and break scrum team rhythm.



## **Discovery Cycle**

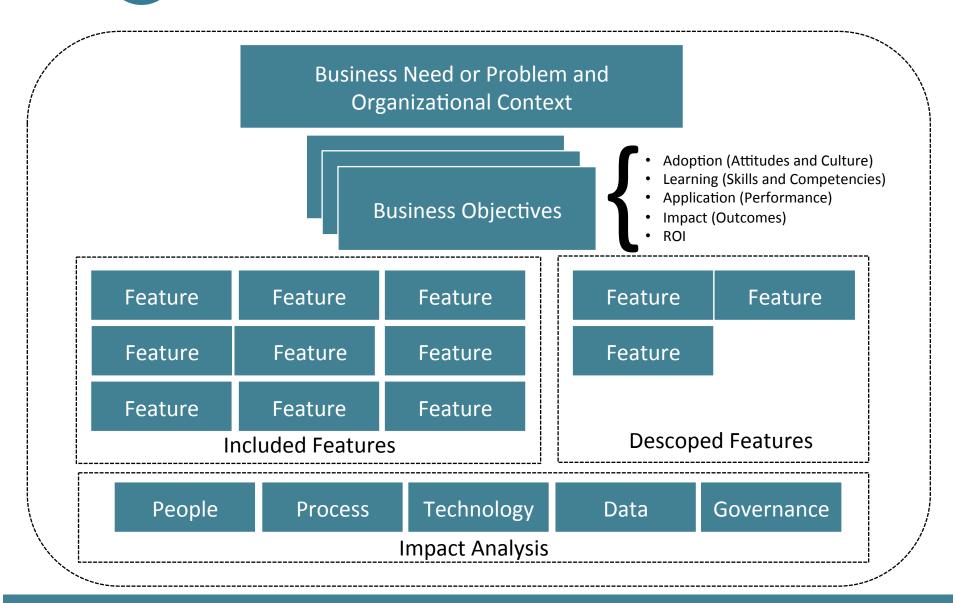
We discover, design, and validate to achieve validated learning.



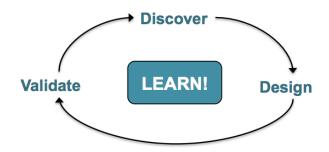
- Understand the problem before building the solution.
- Discover requirements don't gather or develop requirements.
- Validate all assumptions.
- Engage users and stakeholders.
- Use Lean Startups such as MVP to prevent waste.
- Design just enough to get started Discovery, Design, and Validation continue into Development and Delivery



### Align to Business Objectives and Deliver Customer Value









## Business Discovery

- Business Model
- Business Case
- Business Objectives
- Expected Performance
- Capability Gaps
- Business Changes
- Pricing Models



## Customer/ Stakeholder Discovery

- Customer Needs
- Customer Personas
- Market Needs
- Business Process Design
- Demand



## User Adoption Discovery

- User Needs
- User Personas
- User Expectations
- User Activities
- Scenarios
- Learning
- Prototypes
- Storyboards
- Usability



Product/Solution
Discovery

- Features
  - o Feasible
  - o Usable
  - o Valuable
- User Stories

Increased Adoption Rates

Improved User Productivity

Higher Quality

Reduced Maintenance Cost

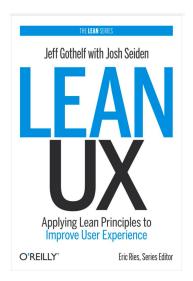
Higher ROI

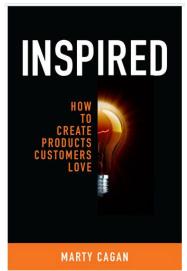


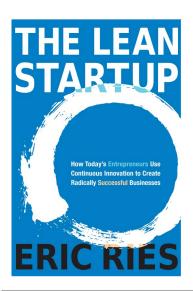
## **Dual Track Agile Influences**

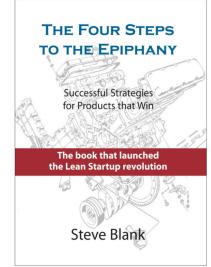


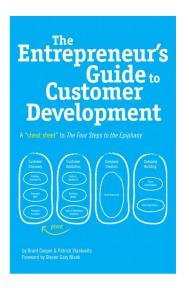
Jeff Patton
Inventor of Dual Track Scrum
Founder of Comakers





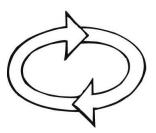








## **Benefits of Dual Track Agile?**



- Helps reduce drawn out Sprint planning sessions resulting from under-defined user stories.
- Increases velocity of delivery team through providing better define user stories.
- Avoids waste by validating ideas in the least costly way.
- Reduces costs by avoiding the build of features that provide little or no value.
- Increases collaboration with Business SMEs and UX Designers when defining stories, easing transition to production and delivery.
- Helps improve user adoption through placing heavy focus on Lean UX and prototyping.
- Provides for better utilization of resources: discovery and delivery skills are very different.
- Significantly reduce risks through discovering impacts, gaps, and risks.



## **Discovery for Products**



## Product Development Starts with Hypothesis, not a List of Requirements (*User Stories*)

#### Hypothesis are developed for:

• Problem (Is the problem real?)

• Customer (Who has the problem?)

• Solution (Will the solution solve the problem?)

• Market (What is the size of the market)

• Business model (Will the Business Model work?)

• Pricing (How should we price the product?)

• Demand creation (How can we generate demand?)

• Competition (Will we gain a competitive advantage?)

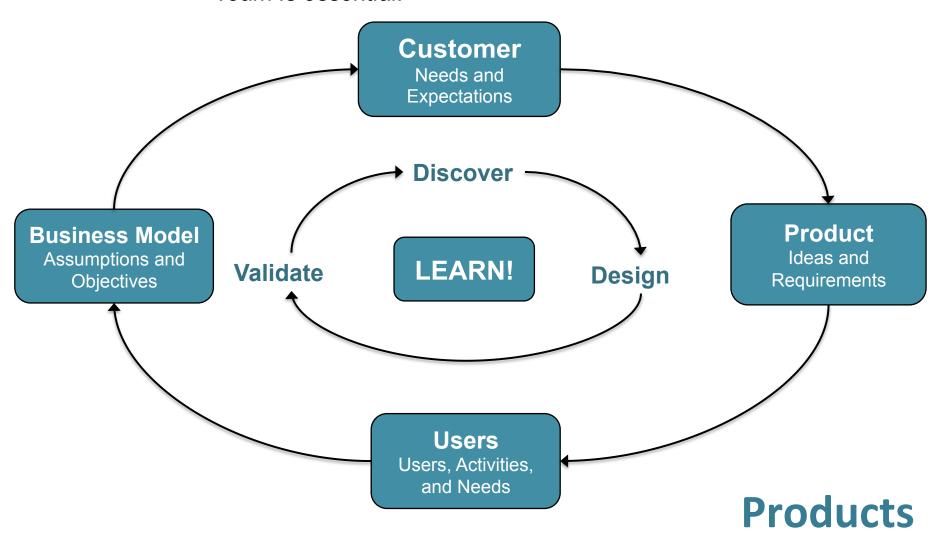
#### **Example Hypothesis**

50% of newly signed users will create an avatar. Average time spent on maintaining user profile information will go from less than 30 seconds to more than a minute.



## **Discovery:** Building the Right Product

Collaboration between the Discovery Team and the Delivery Team is essential.

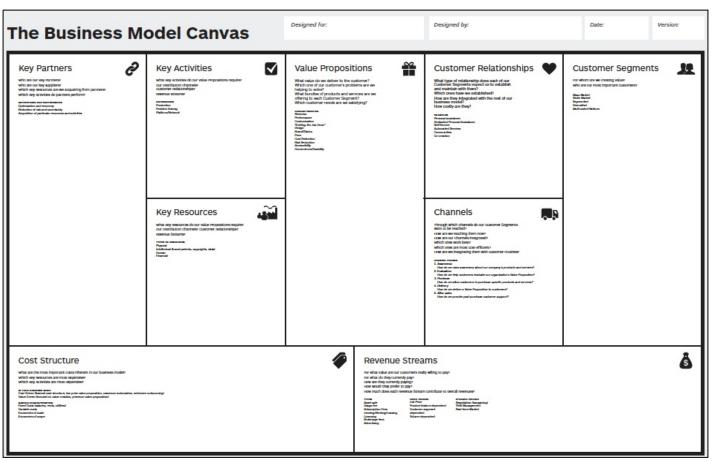




## **Business Model Discovery**

Continuously validate assumptions related to the business model.

Alexander Osterwalder created the simple graphic called a Business Model Canvas to test assumptions related to the business. A Business Model Canvas should be attached to the project in RequirementPro™ and address the following 9 topics:

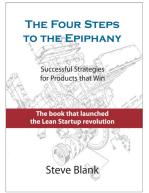


- 1. Key Partners
- 2. Key Activities
- 3. Key Resources
- 4. Value Propositions
- Customer Relationships
- 6. Channels
- 7. Customer Segments
- 8. Cost Structure
- 9. Revenue Streams

Source: Alexander Osterwalder; http://www.businessmodelgeneration.com/

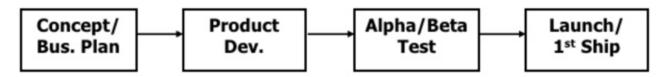


## Product Development and Customer Development are both Essential

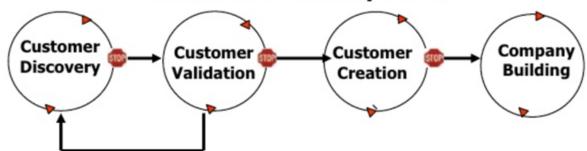




### **Product Development**



#### **Customer Development**



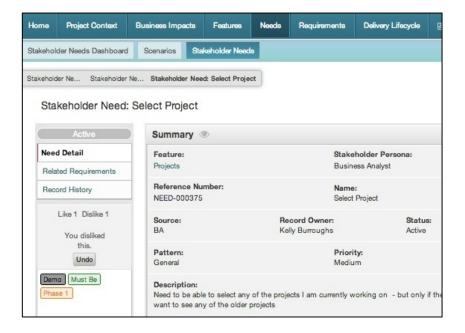
Source: Steve Blank

Agile works well for Product Development, but not so well for Customer Development.



## **Customer Discovery**

**Stakeholder Needs**. Stakeholder needs can describe a customer problem.



#### **Questions to Answer:**

- 1. Who are the customers?
- 2. What are the customer's top problems?
- 3. Are others trying to solve this problem? If so, why
- 4. Will the product solve their problems?
- 5. How much will customers pay?

**Personas.** Document characteristics and expectations of customers.







- **Feasible** Can the product be built within the constraints of time, budget, and technology?
- **Usable** Will the product simplify users' work and be fast to learn and easy to use?
- Valuable Will customers buy the product because it helps them solve a need or problem?

## enFocus Product Discovery

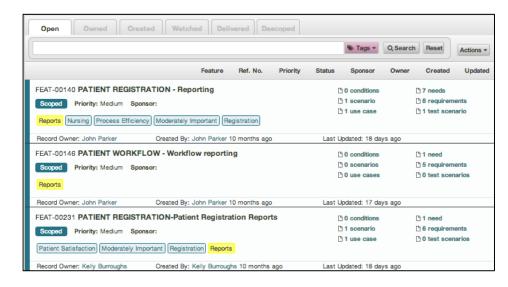
Identify and validate features that will provide the most value.

**Tags.** Assign tags for organizational and sorting purposes.

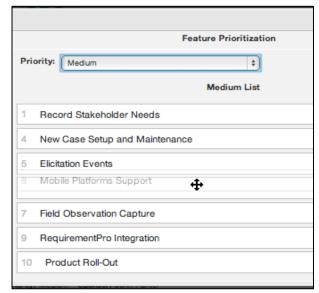
**Feature Priority.** Assign Features as High, Medium, or Low.

Rank Order. Assign an initial priority using High, Medium, and Low, and then rank within the priority level.

**Prototypes.** Create prototypes for quick and easy validation then attach in RequirementPro™.









## **Discover What is Required for User Adoption**

#### **User Personas.**

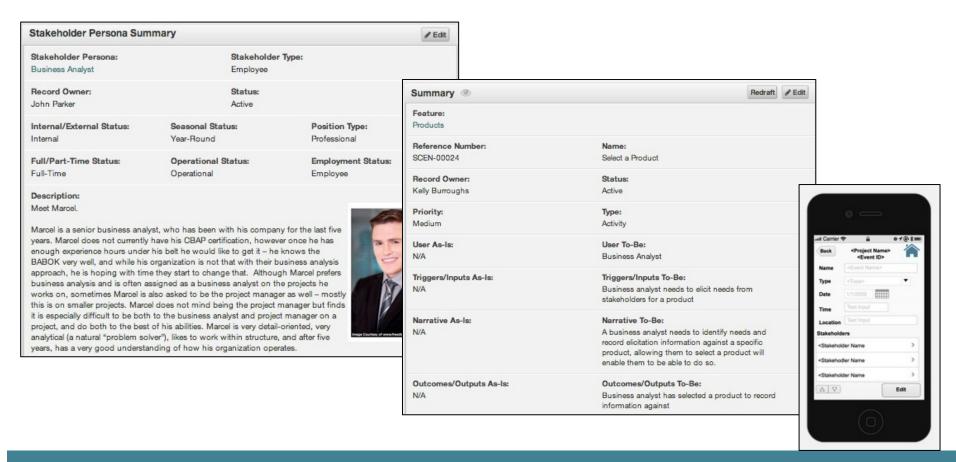
Document characteristics and Understand what expectations of different user types.

#### Scenarios.

users activities are.

#### Prototypes.

Design and validate the user experience.



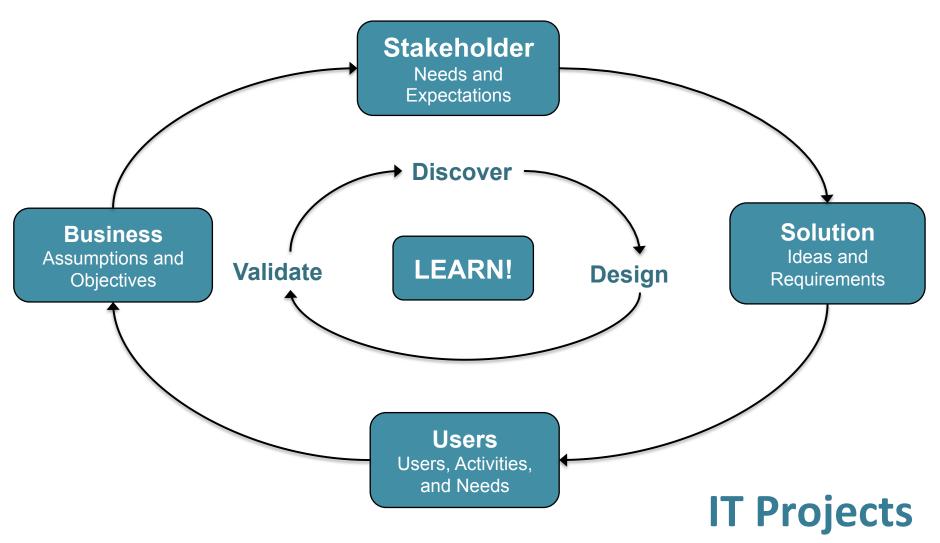


## **Discovery for IT Projects**



## **Discovery:** Building the Right Product

Collaboration between the Discovery Team and the Delivery Team is essential.





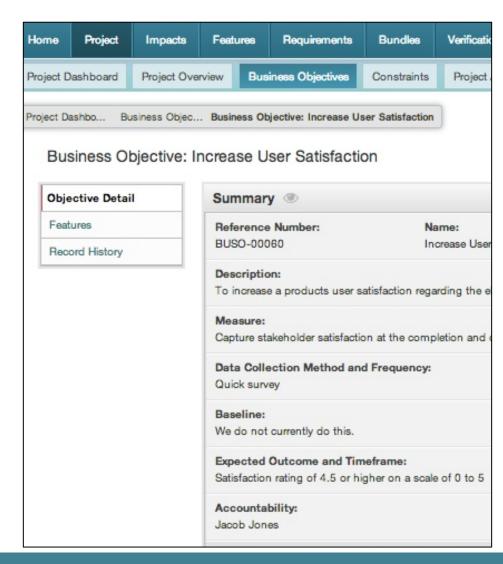
### **Discover Business Outcomes**

Identify expected outcomes and discover any problems that may prevent them from being achieved.

#### **Define Business Objectives.**

Define a clear set of business objectives using the ROI Institute's framework and objective types.

- Reaction Objectives. What is needed to simplify user activities?
- Learning Objectives. What do users need to become proficient with the solution?
- Application Objectives. How can we get users to adopt the solution?
- Impact Objectives. What are the expected business outcomes?
- ROI Objectives. What is the expected ROI?





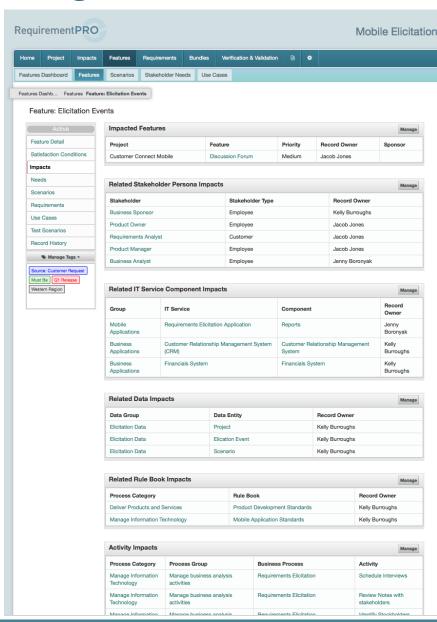
## **Discover Business Change**

What needs to change to solve the problem?

## **Define Impacts.**

Address what the needed changes will impact.

- People. Which people or organizations will be impacted by the project?
- Processes. What business processes will be impacted?
- Governance. What rules constrain the project?
- Data. What data and knowledge is needed?
- Technology. What IT services and technologies will be impacted?
- Projects. What other projects will be impacted by the project?



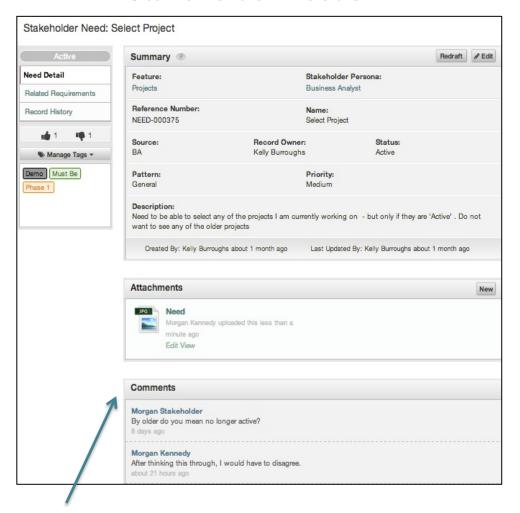


## enfocus Discover Stakeholder Needs

#### Stakeholder Personas



#### Stakeholder Needs



#### **Comments/Reviews**



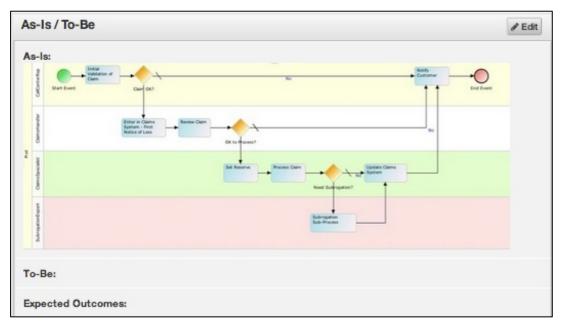
### **Discover Business Processes and Business Rules**

#### **Business Processes.**

Define As-Is and To-Be business process models to create a shared context and open up meaningful dialog.

#### **Business Rules.**

Discover business rules that constrain or enable stakeholders.







## **Discover What is Required for User Adoption**

#### **User Personas.**

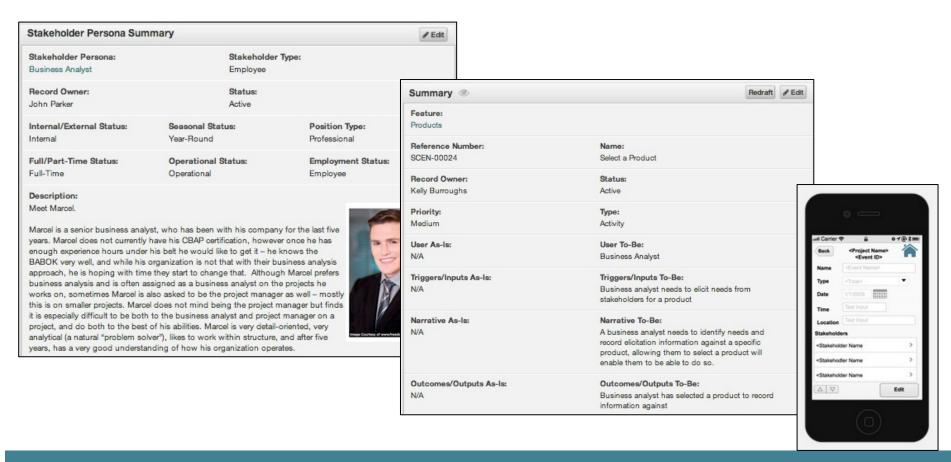
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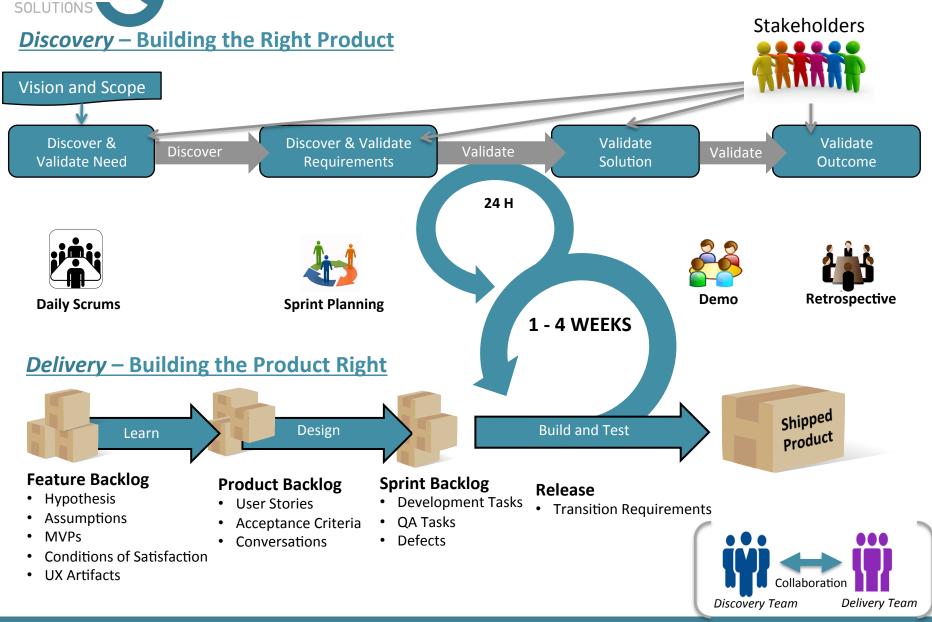
#### Prototypes.

Design and validate the user experience.



## enfocus SOLUTIONS

## **Dual Track Agile**





- 1. Two Cross-Functional Teams
  - Discovery Team—Discovers and validates needs, and define items for the backlog
  - Development Team—Develops releasable software from backlog items
- 2. Progress is measured in **outcomes**, not outputs
- 3. Start with shared **Vision** and understanding
- 4. Discovery focuses in three key areas:
  - Business outcomes (Business model or objectives)
  - Customer and market needs
  - User adoption
- 5. Continuous user and customer involvement
- 6. Begin with hypothesis and assumptions, not requirements
- 7. Everything is validated: ideas, requirements, solution, and outcomes
- 8. Validate using the least costly method



- 9. Use MVPs (Minimum Viable Products) to validate concepts; use prototypes instead of code where possible
- 10. Discovery teams start with Features (or Epics) and decompose into stories
- 11. Small batch size; design only what is necessary to move forward
- 12. Eliminate Features that provide little or not value
- 13. Only validated user stories are placed in product backlog; all user stories are directly tied to a Feature and comply with INVEST
- 14. Conduct joint retrospectives
- 15. Continually optimize and remove waste
- 16. Design is a continuous process that crosses discovery and delivery
- 17. Avoid bid upfront design—design just enough
- 18. Design is not end for delivery; the end is delivery of valuable, usable and feasible software
- 19. Design and build are both iterative and incremental
- 20. Manage data and not documents: get out of the deliverable business



## **Agile Discovery Team**

	Discovery	Delivery
Output	Validated Learning	Working Software
Primary Work Method	Concepts and Experimentation	Engineering
Work Steps	Discover-Design-Validate	Build-Test-Release
Validation & Verification	Validation	Verification
Focus	Building the Right Product	Building the Product Right
Measure of Success	Outcomes	Velocity
Lean Approach	Views unused software as waste	View unnecessary documentation as waste
Measure of Success	Valuable, Usable, and Feasible Software	Working Software

## They are Both Right!!!





**Discovery Team** 



**Delivery Team** 

- Discovery and delivery tasks are very different. There are many Features that are discovered that should never be built.
- Validating ideas using code is expensive, time consuming, and wasteful.
- Because of inevitable delays dealing with external customers and stakeholders, many discovery tasks extend beyond a single sprint.
- Discovery teams work with Features which are typically consist of multiple user stories.
- Combining discovery and delivery resources on one team makes team size unmanageable and does not scale.





#### **Discovery Team**

- Business Analysis
- Product Management
- Marketing and Branding
- User Centered Design
- Market/Customer Analysis
- Financial Analysis
- Customer Development
- Knowledge of Lean Start-up



#### **Delivery Team**

- UI Developer
- Backend Developer
- Application DBA
- QA and Test
- Systems Analysis



### What About the Product Owner?







**Product Owner** 



**Delivery Team** 

#### **Options**

- 1. Product Owner is the Discovery Team
- 2. Product Owner is a member of the Discovery Team, but is collocated with the Delivery Team
- 3. Product Owner directs both teams
- 4. Product Owner directs Delivery Team and Product Manger directs Discovery Team, and the two owners work together



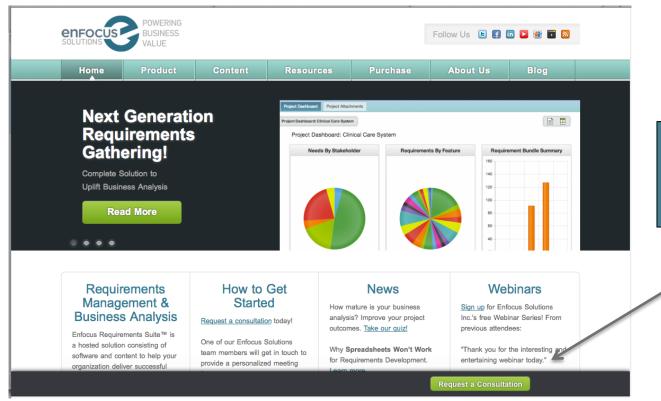
## **Business Case for Dual Track Agile**



- Better Discovery will ensure business and stakeholder needs are understood and will result in better business outcomes.
- Better validation practices will eliminate working on Features that provide little or no value.
- Savings will result from more cost effective validation: using code to validate ideas is very expensive.
- Savings will result from capturing defects much earlier in the process.
- Savings will result from less rework and less development iterations.
- Achieve higher user adoption through more focus on user centered design.
- Better utilization of resources: Designers and analysts skills are more aligned to discovery than delivery.
- Increases velocity of delivery team through having better defined user stories and spending less time grooming the backlog.
- Provides efficient method to validate assumptions about the market, customers, and the business model before building the product.



# Q&A



If you want to know more, please request a consultation.

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