# Solutions to development of model-based standards [using STEP as an example] – **Brandon/Marion**

## Adoption of Agile Framework [II.A, II.B] - **Brandon**

### What and How to use Issue Management [backlog]

### What and How to use Increment Planning and Agile Release Trains

Introduction

Many development teams still use traditional methods to create their products. These traditional methods drive the teams to long phases of requirements documentation, product development, integration, review and publication. Yet - many organizations have adopted agile as a means to shorten the development cycle and provide a usable product to the users faster. These organizations have realized XX benefits. (Rico, David F., 2008)

Agile, itself, is not a new concept. There are many examples of projects using agile concepts such as rapid application development, prototyping and many others. However, since the creation in 2001 of the Agile Manifesto, there have been many related implementations and development of new methods. The manifesto describes 12 principles – but there are three that hit home for the development of model-based standards. The first is, “Deliver working software frequently.” The second is “Working software is the primary measure of progress.” And the third is, “At regular intervals, the team reflects on how to become more effective, then tunes and adjust its behavior accordingly.” Agile Manifesto (Beck et al., 2001) Note, the term “software” can be replaced with any product such as “data models” or published data standards. Agile methods include [but not limited to] practices such as Extreme Programming, Scrum, KANBAN, Backlog Management, and Continuous Delivery.

In addition to the specific methods used, there are some overarching frameworks that help tie them all together to help large organizations implement at different scales. These frameworks include Scaled Agile [SAFe], Disciplined Agile Delivery [DAD] and Large-scale Scrum [LeSS]. While some have criticized SAFe as being too prescriptive, it has seen double the implementations by industry over LeSS and DAD.(KnowledgeHut, 2018)

The FULL SAFe framework by Scaled Agile provides the most comprehensive configuration for deployment. (Scaled Agile, 2018a) Each project team must analyze their needs and identify which component(s) of the framework will enable them to meet their goals. Overall, SAFe has documented case studies that bring real business results including happier, more motivated employees, faster time-to-market, increase in productivity and defect reductions. (Scaled Agile, 2018b)

While SAFe provides many tools to implement agile – this paper will discuss only a few that can bring much benefit to the development teams of model-based standards.

Customer satisfaction by early and continuous

Deliver working software frequently (weeks rather then months)

Close, daily cooperation between business people and developers

Key components as they relate to development of Model-Based Standards

Program Increment [PI Planning]

Develop Team Velocity for virtual/volunteer team

Kanban & Task Management

Management of Backlog

Continuous Delivery with Agile Release Trains

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