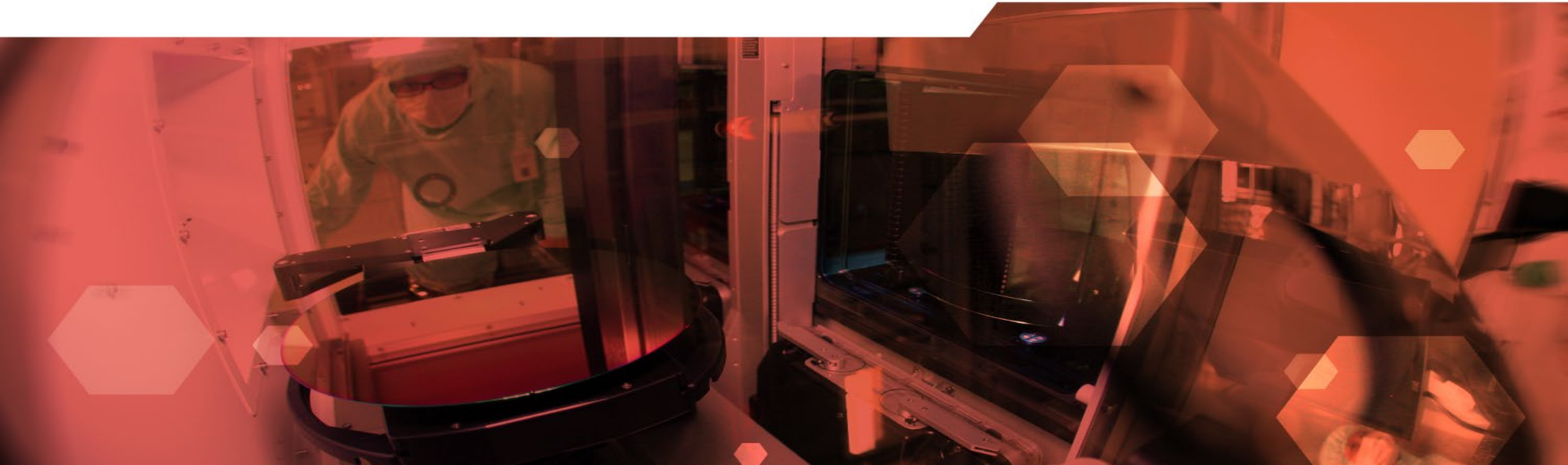# Spring 2022 Technical Committee Meeting
SEMI BIM Task Force Report Out
29-Mar-2022

Michael Potts, PE, LEED AP BD+C, CxA

Task Force Lead

Agenda

- Resolving previous ballot comments before re-ballot
    - 28 comments remaining (from approx. 60)
    - These remaining comments need BIM TF SME input and worksessions.
        - 15 Structural
        - 10 Elec
        - 3 Process

semi | Standards

6628A SEMI Draft Doc Status

6628A SEMI Draft Doc Ballot - Status

- 6628A SEMI Draft Doc Status
- 6628A SEMI Draft Doc Next Steps
- Open Discussion

semi | Standards

6628A SEMI Draft Doc Next Steps

semi | Standards

6628 SEMI Draft Doc Next Steps (Planned)

- By 22-Apr-2022: SME remaining comments worksessions
  - Structural: 31-Mar
  - Electrical: (TBD)
  - Process: (TBD)
  - Reviewer alignment: 26-April
  - BIM TF Pre-Ballot meeting: 28-April
- BIM TF Pre-Ballot Final Review period (1 week) 2-May to 9-May
- Submit for Cycle 5 balloting in in mid-May
- Voting in June
- SEMIcon West 10-July to 14-July

Open Discussion

semi | Standards

Open Discussion

-

Standards

Support Information

semi | Standards

Definitions

Building information modeling (**BIM**) is a process involving the **generation** of digital representations, including, 2D blocks, 3D models, data of physical and functional characteristics of equipment, systems, buildings, sites, and people.

SEMI Draft Document 6628
New Standard: GUIDE FOR FACILITIES DATA PACKAGE FOR SEMICONDUCTOR EQUIPMENT INSTALLATION AND BUILDING INFORMATION MODELING
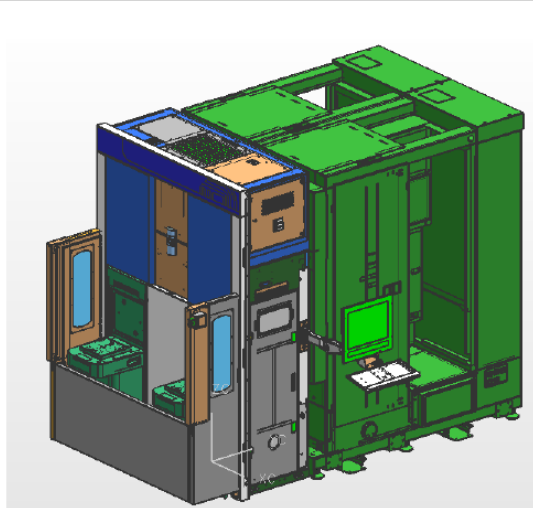
Figure 1
Sample of a 3-D Model Shell
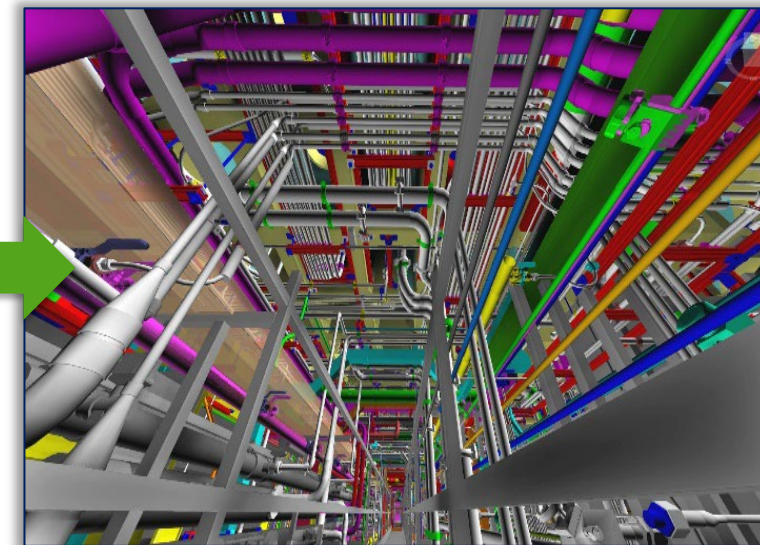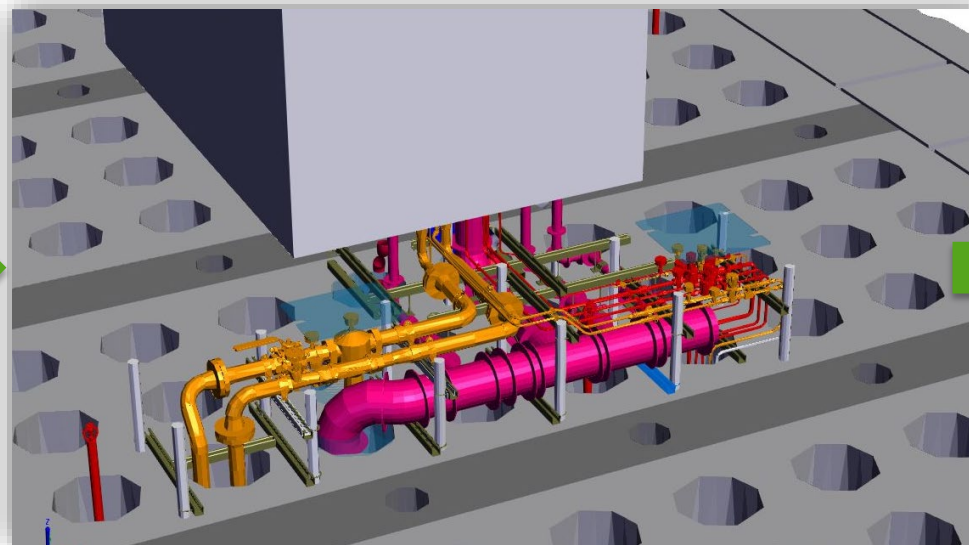
Definitions

Virtual Design and Construction (VDC) is the **integration** of multi-disciplinary BIM models for design-construction projects, including the processes and systems of the AEC partners and FOA Factory and Facilities Design - Construction - Operation teams.
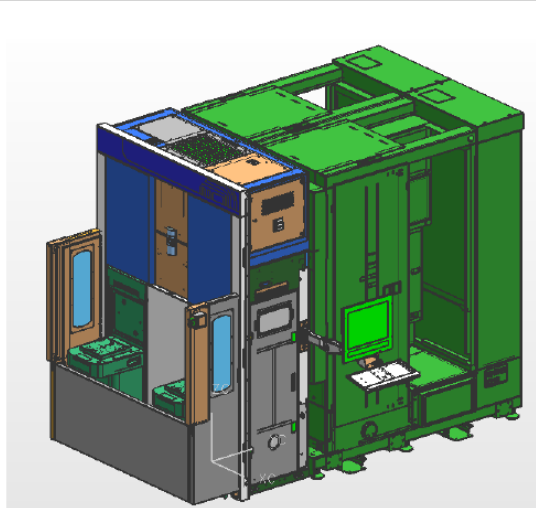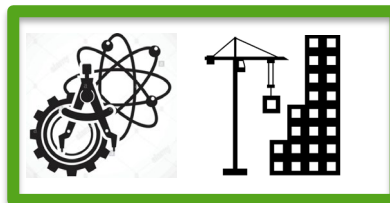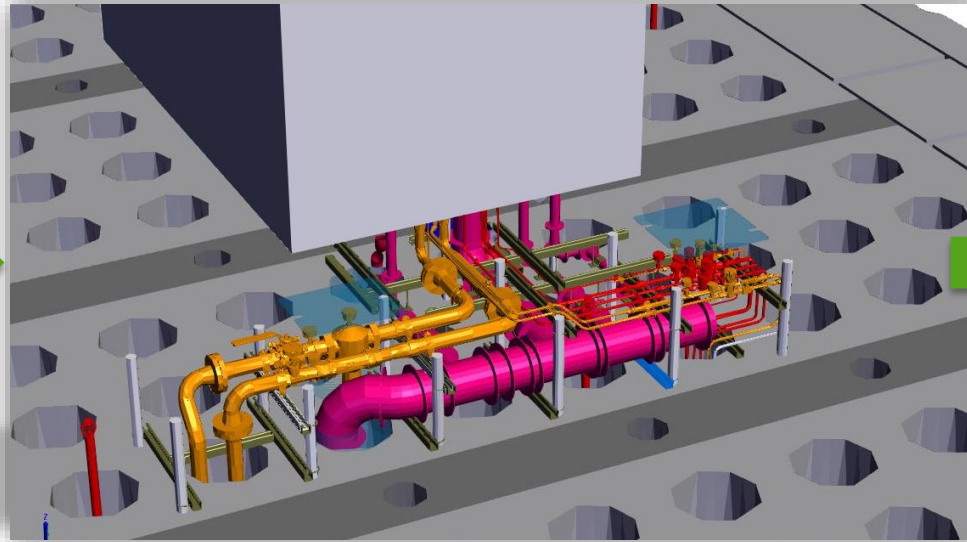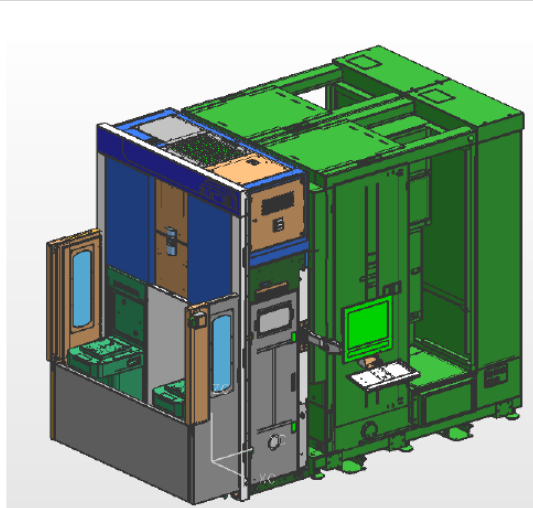

Figure 1
Sample of a 3-D Model Shell

Definitions

Digital Twin is a digital replica of potential and actual physical assets (physical twin), equipment, systems, buildings, sites, people, and associated data that can be used for various purposes, including **real-time data reporting, predictive analytics, and simulation**. The digital representation (twin) provides both the elements and the **dynamics** of how an **Internet Of Things (IoT)** device operates and lives throughout its life cycle [IBM Watson]. FOA systems integration.
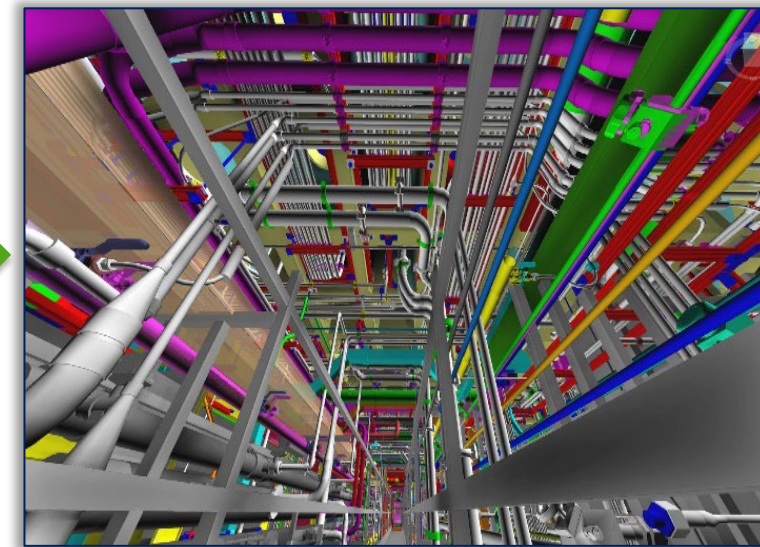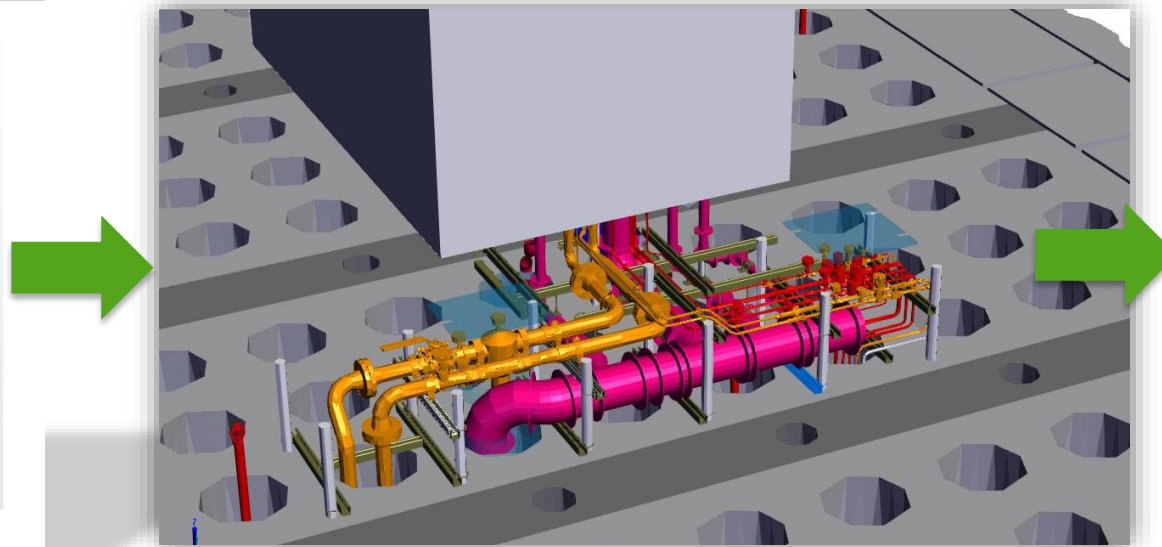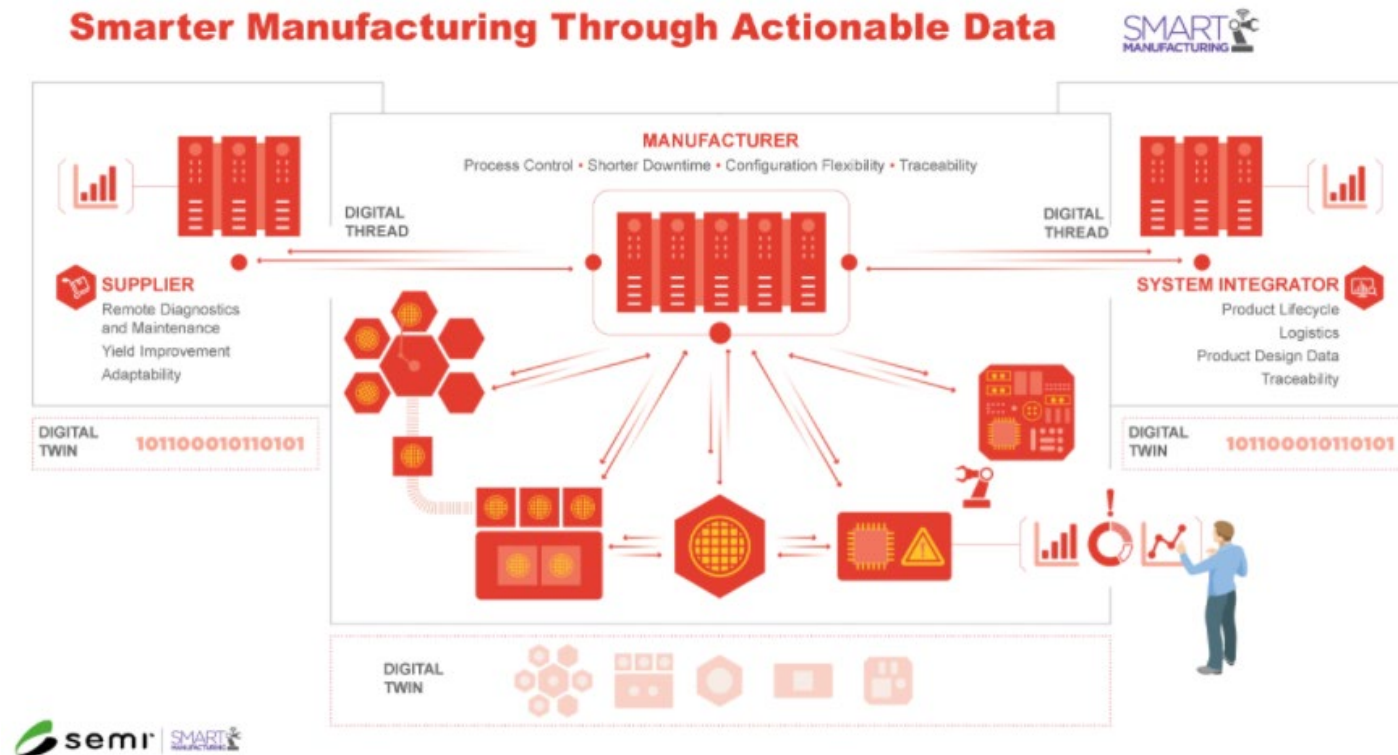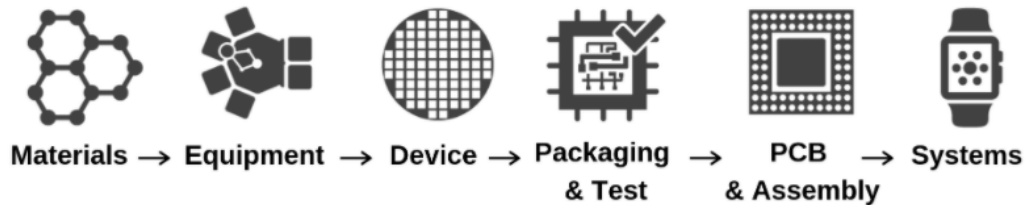

**Figure 1
Sample of a 3-D Model Shell**

SEMI Smart Manufacturing

Smart Manufacturing (Processes & Product) is defined as the use of production and sensor data with manufacturing technologies to enable adaptability in process.
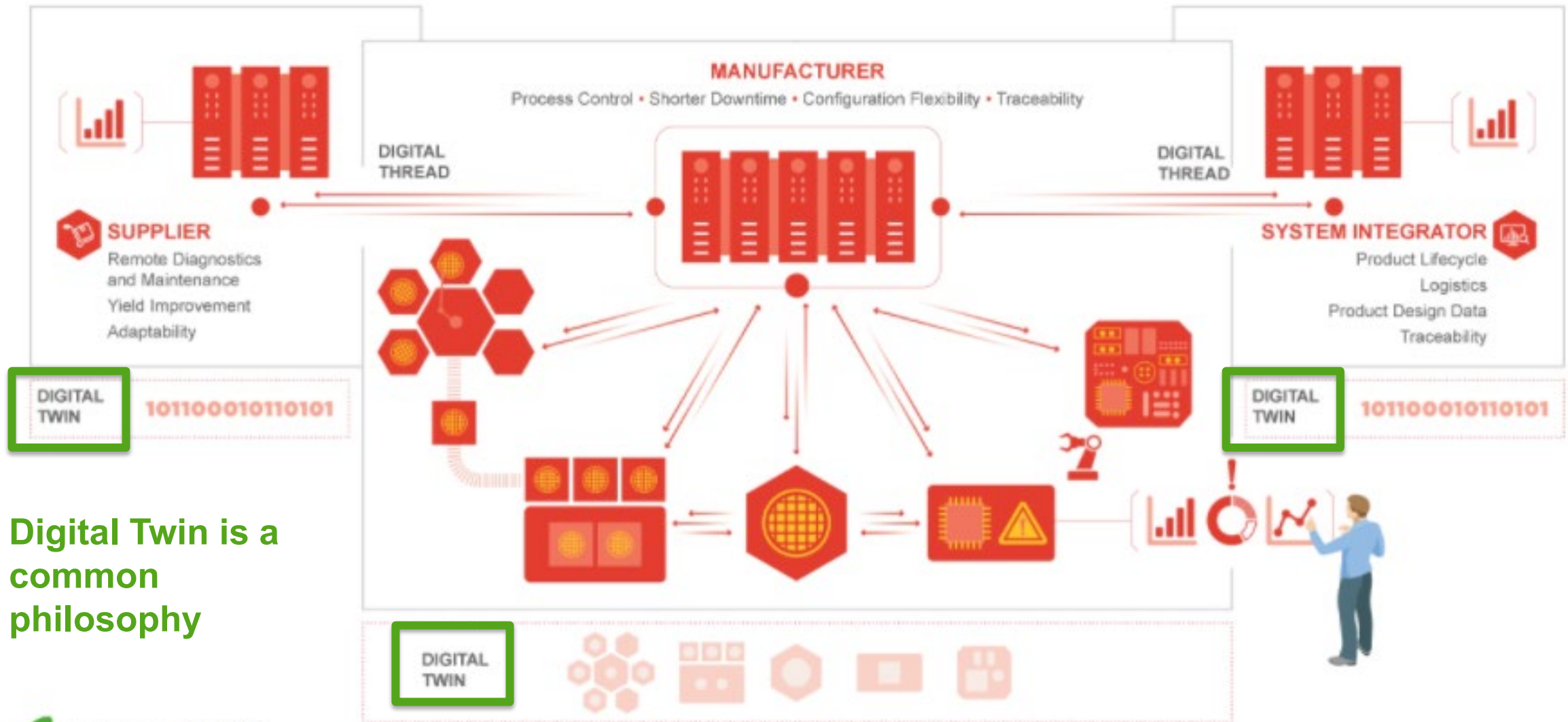
https://www.semi.org/en/industry-groups/smart-manufacturing/about

SEMI Smart Manufacturing

Smarter Manufacturing Through Actionable Data

Digital Twin is a common philosophy

SEMI Smart Manufacturing

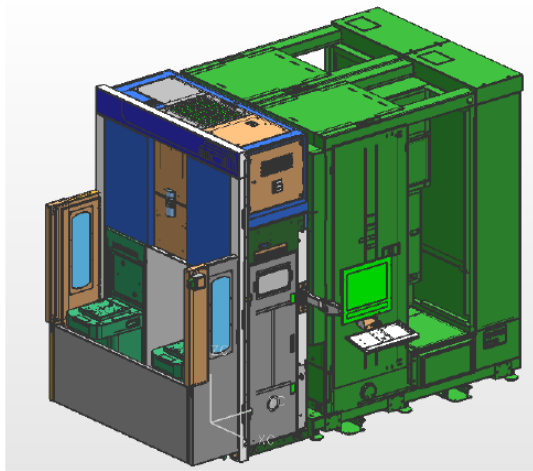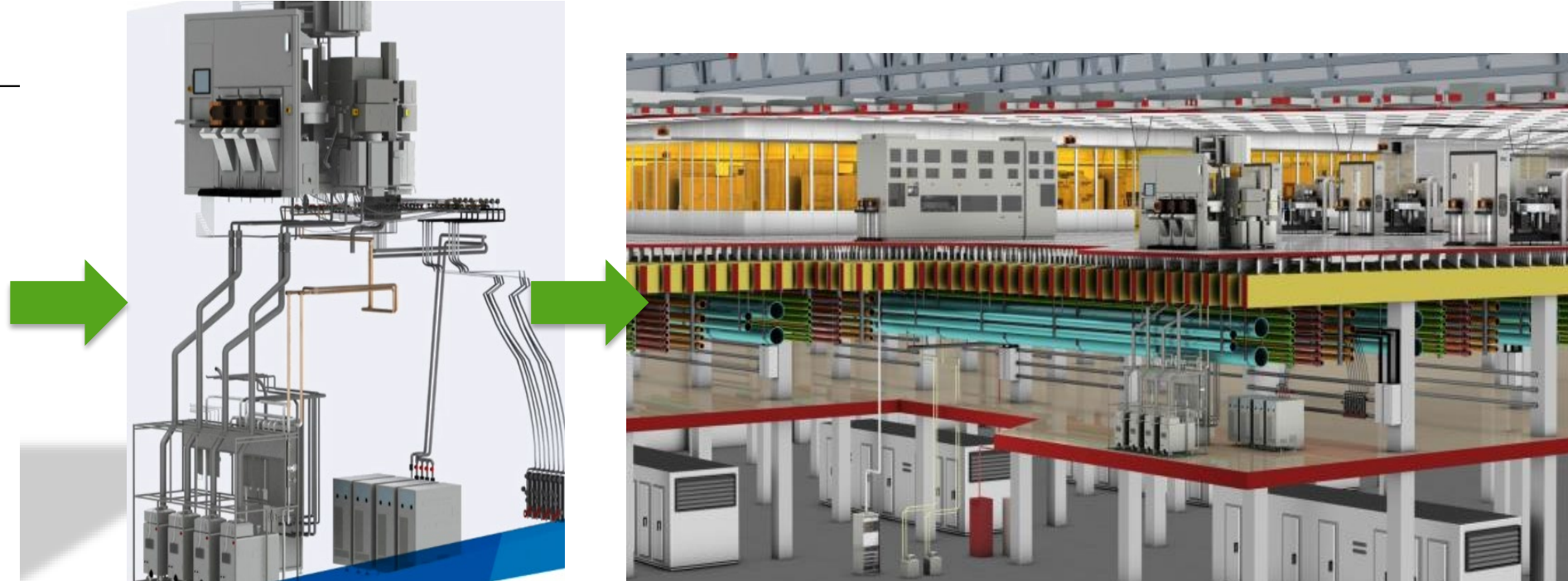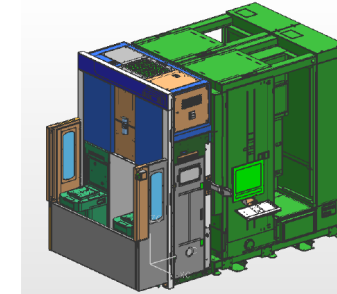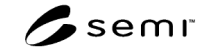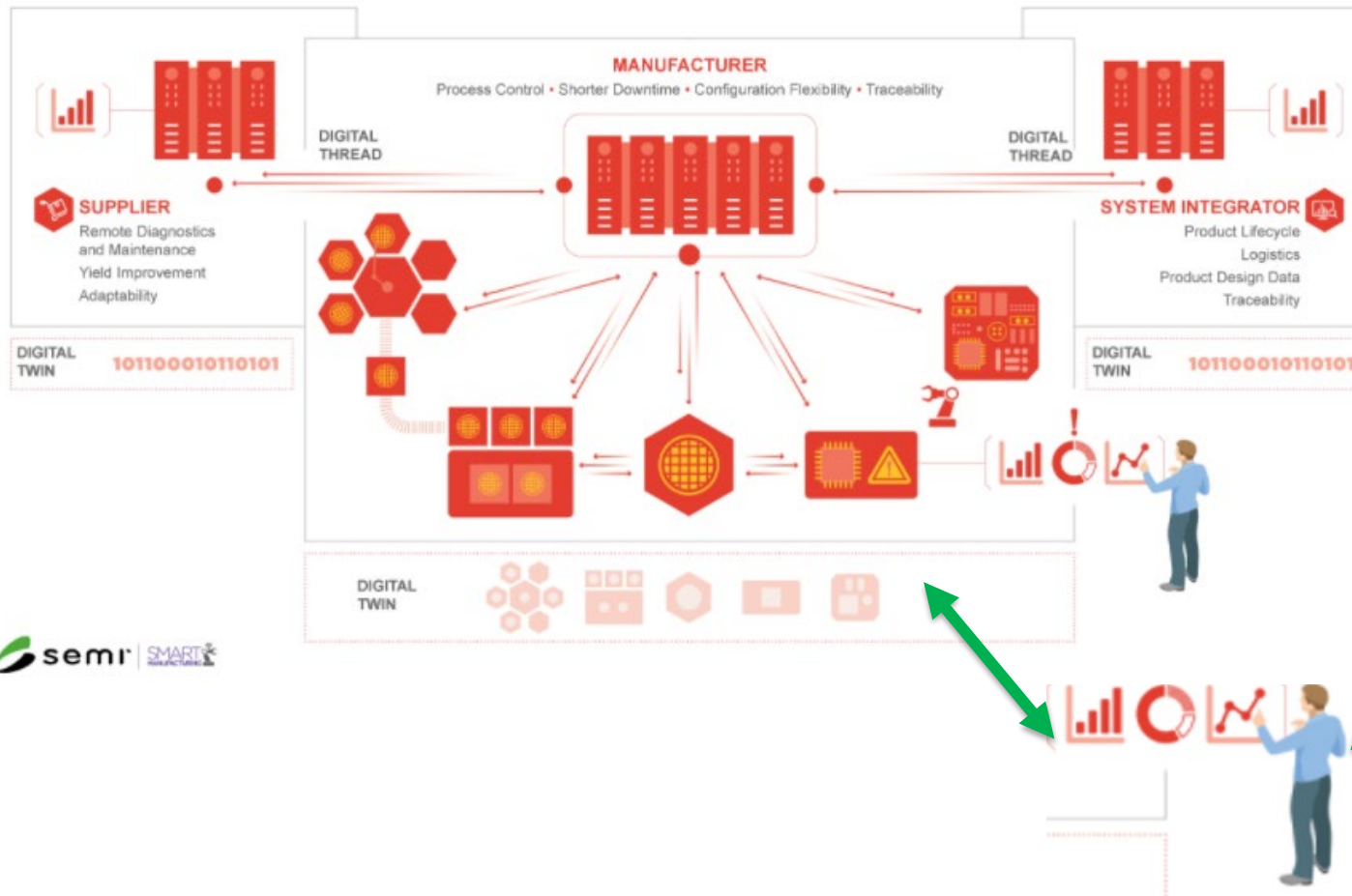Applied to BIM, VDC, And Factory Digital Twin

Figure 1
Sample of a 3-D Model Shell

SEMI Smart Manufacturing

Holistic Ideal State

Fab Owner