Business Challenges Webinars

• Prompted by ASSESS Initiative

• The ASSESS Vision

“To significantly expand the use and benefit of software tools for model-based analysis, simulation, and systems engineering in the engineering applications domain.”
ASSESS Initiative

• ASSESS is a broad reaching multi-industry initiative which will interact and collaborate with multiple activities and organizations across the complete spectrum of model-based analysis, simulation and systems engineering including: NAFEMS, INCOSE, DMSCO, IEEE, CIMdata, Revolution in Simulation, and others.
ASSESS Initiative

- The **ASSESS Initiative** was formed by intrinSIM and Cyon Research to bring together key players to guide and influence strategies for software tools for model-based analysis, simulation, and systems engineering.
Business Challenges Webinars

- **June** (Introduction to the Business Challenges series)
  - The Changing Role of Simulation Brings New Business Challenges (Joe Walsh)
- **July**
  - Simulation ROI (Richard Riff / Bob Deragisch)
- **August**
  - Non-technical/executive Communication (Alexander Karl / Frank Popeilas)
- **September**
  - Licensing Model Pressures (Monica Schnitger/Don Tolle)
- **October**
  - Influence and issues related to Small/Medium sized Enterprises (Ken Welch / TBD)
- **November**
  - Improved Vendor & End-User Collaboration (Boeing/BMW)
NAFEMS 20-20 Business Challenges

The Changing Role of Simulation brings new Business Challenges
The Changing Role of Simulation

• The use of Simulation has seen 10-15 % growth annually for about 30 years until 2008
• This cumulative growth now means that Simulation is a significant portion of the Engineering Software Market and a driver for future growth
• This has resulted in increased focus and investment in simulation by major PLM software vendors
• This growth is coupled with increasing awareness by end user companies that Simulation is the key enabler to Increased Competitiveness
• The changing role of simulation is more about it’s role in business than the changes in technology
Technical Drivers for Simulation

- Failure Analysis
- Design Validation
- Design Decision Support
- Design Drivers
- Systems Engineering
Technical Drivers for Simulation

• intrinSIM looked at actual & projected MCAE Market growth since 2009 (Courtesy of Cambashi data observatories)
Business Drivers ➔ Business Value

The Changing Role of Simulation is really about business benefits

- **Innovation is a major key to Competitiveness**
  - Simulation is a major key to innovation
- **Risk management is a major key to Competitiveness**
  - Simulation is a major key to understanding and managing risk
- **Reducing cost is a major key to Competitiveness**
  - Simulation is a major key to reducing material, prototyping & product development cost
Business Value ➔ Broader Demand

- Demand should be increasing on a classic S curve
- Is simulation at an inflection point to break through?
Business Value ➔ Broader Demand

• Simulation is still done primarily by specialized Analysts

• Growth of MCAE market is tempered due to lack of expertise available
Business Drivers for Simulation

• Business Drivers are going to force a "revolution" to overcome the expertise based limitation

• Simulation will be forced to find a way
Business Drivers for Simulation

- The demand is not going away
- A **Simulation Revolution** will occur:
  - “Fit for purpose”
  - “Smart”
  - “Integrated”
  - “Transparent”
7 Key Simulation Drivers

1. Growing demand on “How to be more competitive”
2. Exponentially growing complexity of products & processes
3. Available computing power is rapidly removing the computing bottlenecks
4. New world of 3D printed objects and light weighting
5. Entirely new applications are creating a rapidly growing demand for
   simulation to enable breakthroughs
6. Simulation is used almost exclusively by a limited number of expert
   analysts
7. Simulation efforts have three key but disjointed vectors – Commercial / Government / Research
ASSESS Related Activities

NAFEMS Americas 2014  
(May 2014– Colorado Springs, CO)  
– Invited presentation on “Changing Role of Simulation” spurred creation of ASSESS Initiative

ASSESS Summit  
(January 2015 – Santa Fe, NM)  
– 40 attendees  
– 5 Working Groups

COFES 2015  
(April 2015 – Scottsdale, AZ)  
– ASSESS Update Session  
– ASSESS Roundtable

NAFEMS World Congress 2015  
(June 2015– San Diego, CA)  
– Invited presentation on “Changing Role of Simulation”

ASSESS 2016 Congress  
(January 2016 – Potomac, MD)  
– 85 attendees  
– 7 Working Groups

ConnectPress Webinar  
• Changing Role of Simulation

NAFEMS 20–20 Webinars  
– CAE Democratization track – completed  
– Simulation Governance track – completed

COFES 2016  
(April 2016 – Scottsdale, AZ)  
– ASSESS Update Session  
– ASSESS Initiative advisory committee meeting
NAFEMS Americas 2016 (June 16 – Seattle, WA)
- Keynote presentation for ASSESS Update
- CAE Democratization track
- Simulation Governance track
- Business Challenges track

• NAFEMS 20-20 Webinars
  - CAE Democratization track - completed
  - Simulation Governance track – completed
  - Business Challenges track – starts June 28th

ASSESS 2017
(Preliminary target of Oct 18-20 – location TBD)
- Washington, DC
- Atlanta, GA
- Boulder, CO
- Ann Arbor, MI
ASSESS SUMMIT

• 40 Ambassadors
• 5 Working Groups
• 8 key issues were highlighted
  • Design Centered Workflow
  • Ease of Use & Usability
  • Pre-CAD Analysis & Optimization
  • Impact of Web/Cloud/Mobile
  • Knowledge Capture & Reuse
  • Ability to Combine Heterogeneous Models in a Systems Approach
  • Appropriate Model Fidelity and role of Unsexy Stuff
  • Licensing Models Need to be Revisited
ASSESS 2016 CONGRESS

- 85 Attendees
- 7 Themes / Working Groups
  1. Democratization of Engineering Software (DoES)
     led by-- Monica Schnitger (Schnitger Corp.) / Karlheinz Peters (intrinSIM)
  2. Simulation Confidence
     led by-- Keith Meintjes (CIMdata)
  3. Business Challenges
     led by-- Marc Halpern (Gartner)
  4. The Intersection of Systems Modeling and Classical Simulation
     led by-- Don Tolle (CIMdata)
  5. Aligning Commercial, Government & Research Interests and Efforts
     led by-- Dennis Nagy (BeyondCAE)
  6. Potential Game Changers
     led by-- Andreas Vlahinos (AES)
  7. Looking Forward
     led by-- Jack Ring (Educe) / Bruce Jenkins (Ora Research)
Business Challenges

- **Key Factors**
  - Licensing models (September)
    - Business impact of web cloud/mobile
  - Value proposition of Simulation (July)
  - Communication with non-technical executives (August)
  - Role of untapped Small/Medium Enterprises (October)
  - Improved Collaboration (November)
Business Challenges

• The changing role of simulation is more about it’s role in business than the changes in technology
• Business Drivers are going to force a “revolution” to overcome the current expertise based limitation
• A Simulation Revolution will occur
Business Challenges

- The **Simulation Revolution** will bring a new set of Business Challenges that will need to be addressed
  - Licensing models including impact of web cloud/mobile
  - Value proposition of Simulation
  - Communication with non-technical executives
  - Role of untapped Small/Medium Enterprises
  - Improved Collaboration
Business Challenges

• The **Simulation Revolution** will bring a new set of Business Challenges that will need to be addressed
  • Licensing models including impact of web cloud/mobile
  • Value proposition of Simulation
  • Communication with non-technical executives
  • Role of untapped Small/Medium Enterprises
  • Improved Collaboration
Learn more about ASSESS

http://assessevent.com/

Or email

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NAFEMS 2020: Business Challenges Webinars

- July
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