SYSTEM COMPETENCES – A STATUS VIEW FROM SPACE

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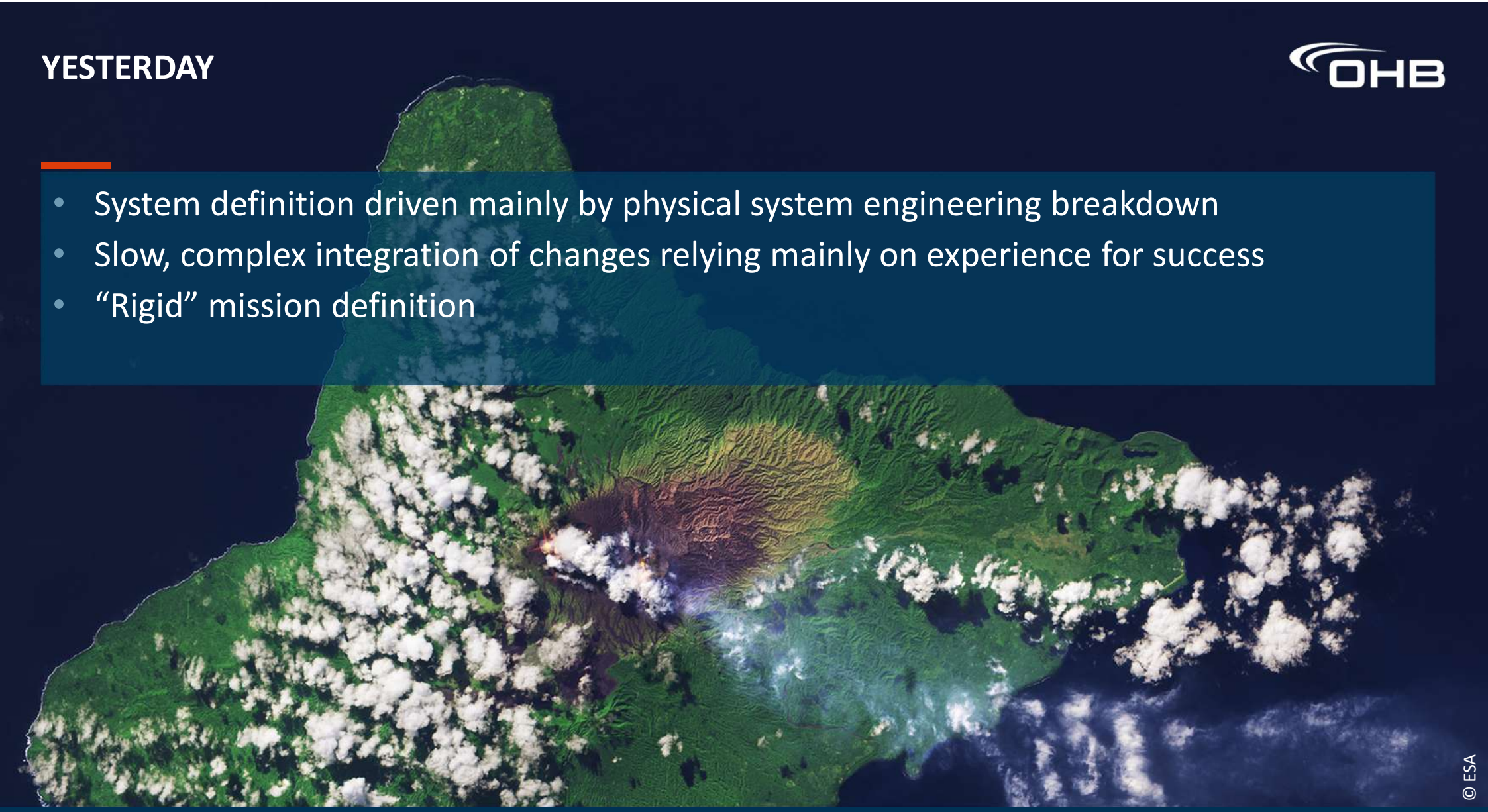


CURRENT CHALLENGES OF SYSTEM ENGINEERING FOR SPACE



YESTERDAY

- System definition driven mainly by physical system engineering breakdown
- Slow, complex integration of changes relying mainly on experience for success
- “Rigid” mission definition



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TOMORROW

CONNECTING THE WORLD

- Focus on functional system breakdown based on a holistic view of space missions ➔ Multi-layered understanding, transversal vision
- Short term/fast change evaluation (AI implementation) ➔ Need for close control of baseline and focus on results
- Very close collaborations between all actors, customers, supply chain, final users ➔ Need for clear communication and forward thinking

WORKFORCE NEEDS/GAPS

- Transversal and social skills requirements have increased in requests and in necessity, with a focus on analytical skills
- Mismatch between the type of learning offered by academia and by industries and the actual needs
- The way of thinking, “forma mentis” is increasingly important in a world where AI and humans collaborate

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RECOMMENDATIONS - WHAT'S NEXT



Appeal to politics: focus teaching on developing system minds and improving critical thinking skills, from the first years of school

Define an integrated talent strategy agenda for Europe, including academia and industry

Establish clear paths for career progression and continuous development and actively identify and train potential talent

THANK YOU!

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