WORKSHOP CONCLUSIONS · 26 OCT 2026

Systems Engineering Expert Workshop

Why: identify challenges and solutions for scaling systems competencies







WHO

The systems workforce: professionals, educators, students and tool vendors

SAM XL

TU Delft Campus, Delft

WHAT

Break-out discussions on three dimensions, sparked by featured talks



Adib Rekik
3DEXPERIENCE Edu Industry Process Expert Specialist
Dassault Systèmes



Dr. Iklim Akay
Lecturer Space Systems Engineering
Delft University of Technology



Marcel van Houtum
Director Head Architect for the Distribution Domain
VanderLande



Anu Anilkumar
Winner of the Systems Engineering Platform Student Challenge 2026
Delft University or Technology



Dr.-Ing. Chantal Sinnwell
Head of Digital Engineering Solutions
Siemens



Adoption of SE



Education & Training



Future of SE

Adoption of SE: the value of SE is hard to see

Observations: how each group perceives SE

STUDENTS **“Admin overhead”**	Extra work on top of their design projects.
COMPANY MANAGEMENT **“Money pit”**	Slow ROI; hard to tell SE benefits from just “good” engineering.
ACADEMIC MANAGEMENT **“Not a priority”**	SE does not make it onto the agenda.

Who has to make the case? Us. Systems engineers and leaders ask all three groups to believe us on the value of SE.

Recommendations

1. **Produce, collect and communicate evidence** of the benefits of (MB)SE
2. **Train all engineers** in the basic fundamentals of SE
3. **Tame tooling complexity:** AI can help
4. **Fail fast, iterate**

Adoption of SE: MBSE needs more than tools

Observations on MBSE

TOOLS ALONE

Tools don’t help without a methodology

INTRODUCTORY PROJECTS

Introductory MBSE projects fail

Another silo: MBSE ends up isolated from the rest of the organization

Too complex: it delivers architectures the other disciplines cannot understand

Recommendation

A holistic approach to introducing MBSE in an organization

- **Cultural shift**
- **Education**
- **Understand your company’s knowledge and data flows**

Education and training: the largest break-out

Observations

CAPACITY
Too few educators with enough SE experience

AWARENESS
SE awareness is missing in some disciplines

Recommendations

1. **Strengthen industry–academia ties** in SE, e.g. company visits that show students the scale and complexity of high-tech, and why SE is needed
2. **Hire industrial experience** into universities; remove barriers such as the PhD requirement
3. **Teach the teachers** on the latest developments in SE
4. **One common, explicit SE language** at all levels of education
5. **SE from year one,** growing over the years: every engineer a beginner at graduation, some become experts

MBSE recommendation

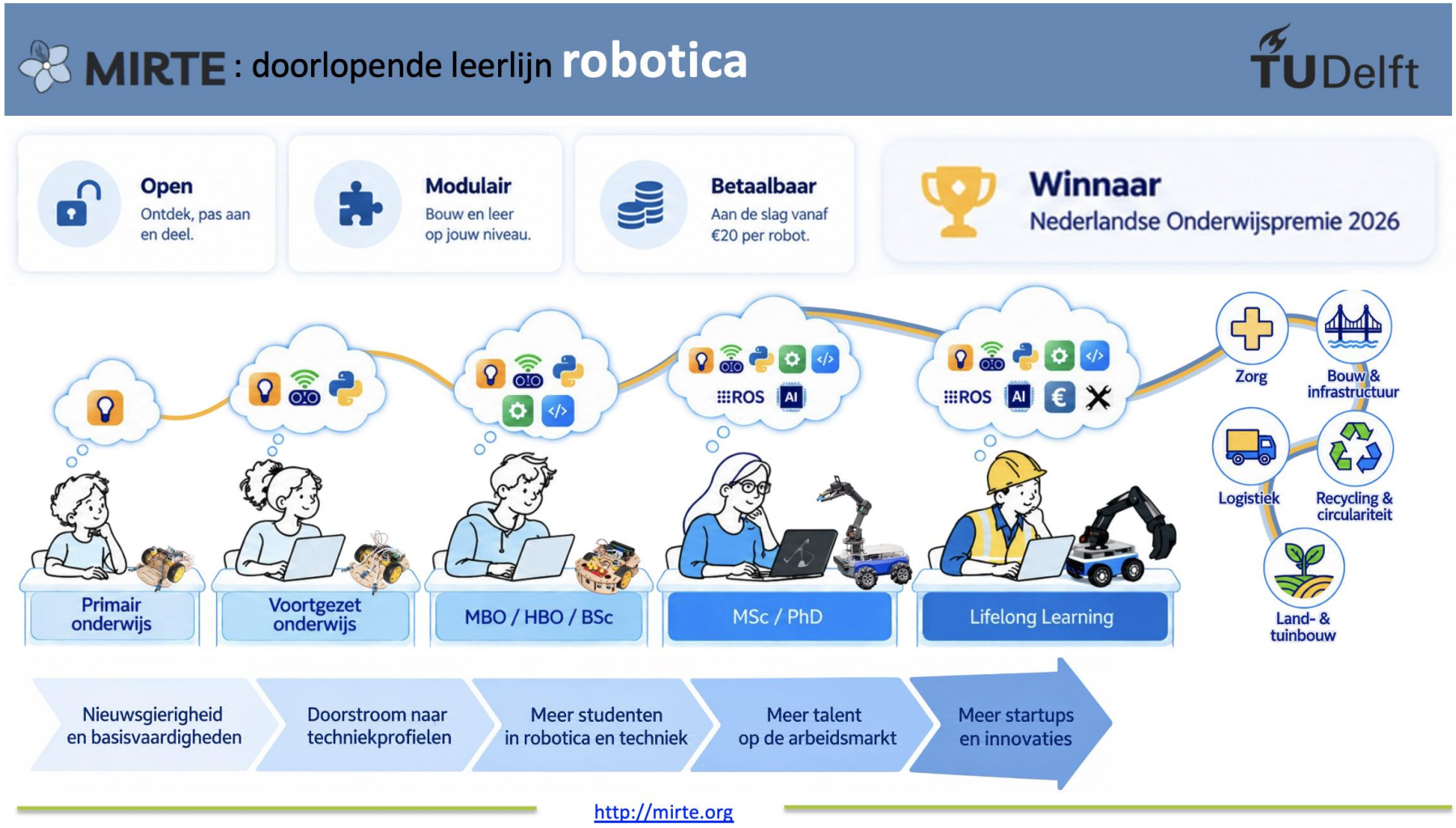
1. **Learn by doing** with the tooling
2. **On educational use cases:** end-to-end design with integration, verification and validation, plus company and expert views
3. **Within a community** of learners and educators
4. **Certification**

Education and training: earlier start

RECOMMENDATION

Teach SE by experience before university: teenagers can relate to defining user needs.

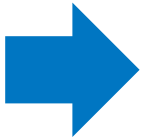
Example: MIRTE, a continuous robotics learning line, mirte.org



Future of SE: a paradigm shift, not just better tools

NOT JUST

Better SE processes and tools



DRIVEN BY AI AND QUANTUM COMPUTING

A paradigm shift in the role of SE

WHAT FORESIGHT BEYOND THE SHIFT REQUIRES

Education and development of technical leadership: the ability to unlearn current conventions and to rethink.