

Quantifying Simulation Quality

From synthetic to real, from academia to industry

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Sep 10-11, 2024
Düsseldorf, Germany



Hochschule Düsseldorf
University of Applied Sciences

HSD



Association for Standardization of
Automation and Measuring Systems

Welcome!

Antitrust reminder

As this workshop potentially involves communication and collaboration between competitors, it must be ensured that no breaches of antitrust law occur.

Participants of this workshop must refrain from the following actions:

- **Exchange of strategic business information** (including but not limited to marketing or sales strategies, investment plans, know-how, customer data, product developments, sale and purchase prices, price lists, production costs, pricing policy and strategies, terms of sale)
- **Agreements on prices** (maximum and minimum prices, price components, granting of discounts, the timing of price changes, terms and conditions of sale and measures accompanying the price);
- **Allocation** concerning products, sales territories and customers;
- **Tender arrangements** (manipulation of tender procedures or invitations to tender);
- **Restrictions on production** (agreement to restrict output or to establish quota systems allocating a specific part of the total industry output amongst members);
- **Resale price arrangements** (setting binding minimum prices for resellers, distribution partners or retailers).

Please contact the ASAM Office if you are unsure whether any measure complies with antitrust law or a topic may involve the disclosure of strategic information.

Organization



W-LAN

SSID: Freifunk

Password: keines *

* Für verschlüsselten Gastzugang bitte melden

Dinner location

Brauerei Schumacher

Oststraße 123

40210 Düsseldorf



Google maps

Take tram 701 (direction Vennhauser Allee) **from Rather Straße** to Steinstraße (10 min, 7 stops)

Rooms



Joint start with public transport at 6:30 pm here!

Let's get started!

1½
days

15
speakers

2
keynotes

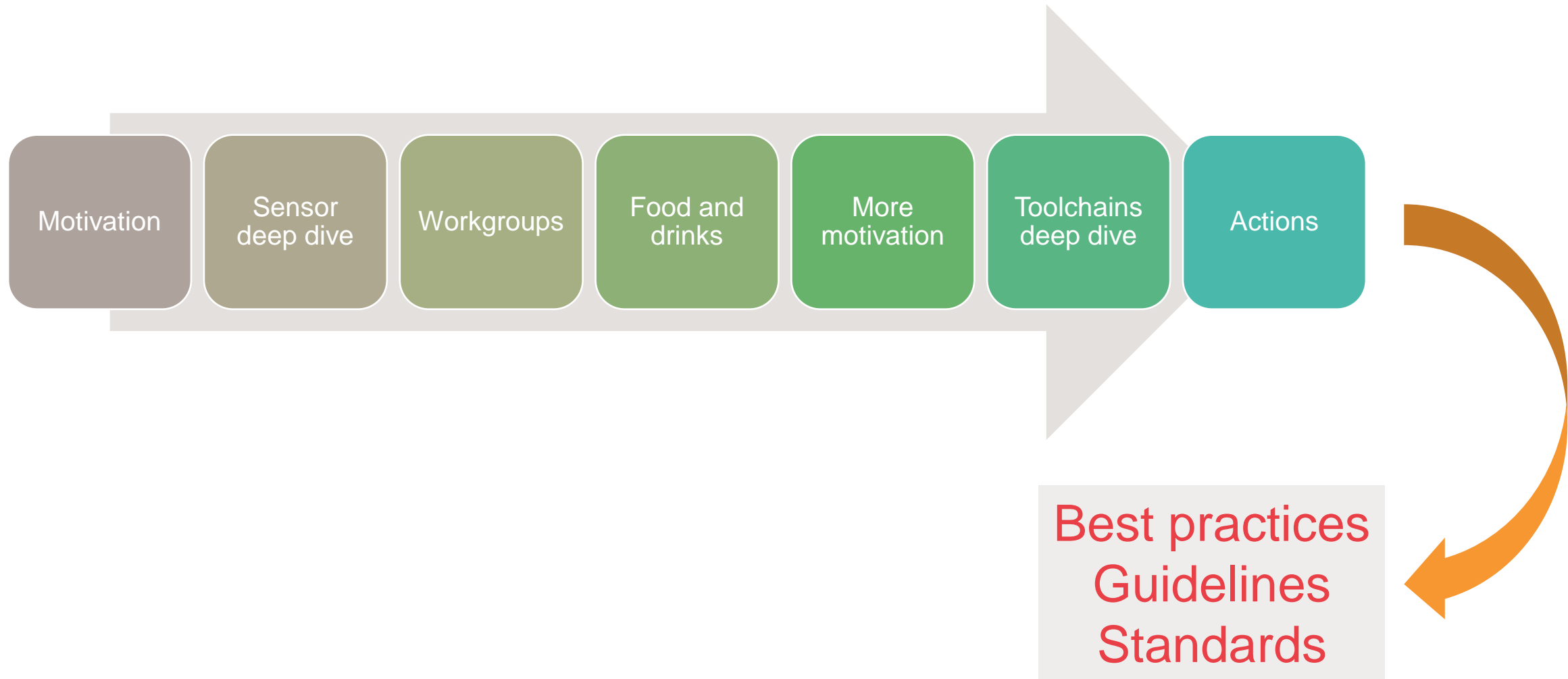
3
workshops



1
topic

Quantifying Simulation Quality

Workflow



Agenda

Sep 10, 2024 | 13:00 - 17:30 CEST

Time	Topic	Speaker
12:00	Registration and light snacks	
13:00	Welcome by the Vice President for research and transfer, HSD	Prof. Dr. Manfred Wojciechowski
13:05	Kick-off and scope of the conference	Prof. Dr. Alexander Braun (HSD) Marius Dupuis (ASAM)
13:20	About ASAM	Marius Dupuis (ASAM)
13:30	About Hochschule Duesseldorf (HSD)	Prof. Dr. Alexander Braun (HSD)
13:45	KEYNOTE: The industry's requirements for simulation quality - A ride through the virtual reality of automotive needs	Tille Karoline Rupp (Porsche Engineering)
	Session: Validation of sensor simulation and sensor models	
14:15	Measuring image quality	Hoang-Phi Nguyen (DXOMARK) Sebastien Noygues (Ansys)
14:45	Sensor-centric synthetic data for system validation	Javier Salado, Anyverse
15:15	Quality of sensor models	Dr. Clemens Linnhoff (Persival)
15:45	Coffee break	
16:10	Workshops / Break-out sessions	
	1. Defining ODDs for the application of simulations and sensor models	1. Gereon Weiß (Fraunhofer IKS)
	2. Input from other domains (e.g. material, etc)	2. Dr. Clemens Linnhoff (Persival)
	3. KPIs for the evaluation of Simulation and sensor models	3. Tille Karoline Rupp (Porsche Engineering) Jann-Eve Stavesand (dSPACE)
17:10	Presentation of workshop results	All
17:30	End of day 1	

Sep 11, 2024 | 9:00 - 15:00 CEST

Time	Topic	Speaker
9:00	Welcome	Prof. Dr. Alexander Braun (HSD)
	Session: Data flow based on ASAM standards - From reality to simulation (and back)	
9:05	Overview on the data flow based on ASAM standards: ASAM OSI, ASAM OpenMATERIAL, ASAM OpenLABEL	Diego Sánchez (ASAM)
	Session: Verification of tool chains	
9:30	KEYNOTE: Virtual validation - Ingredient for a trustable simulation platform	Emmanuel Follin (Ansys)
10:00	SimCERT & ASAM Quality Checker	Marius Dupuis (Ingenieurbüro Marius Dupuis / ASAM)
10:30	Coffee Break	
11:15	Credibility of toolchains and simulation	Juergen Holzinger (AVL)
11:35	Improving Synthetic Data Quality for Safe AI Engineering applying genAI	Sven Hallerbach (DLR), Elena Hoemann (DLR)
11:55	AI- and data-driven simulation supply chain	Alexander Walser (ASCS)
12:15	From simulation to reality	Prof. Dr. Alexander Braun (HSD)
12:35	Lunch	
13:45	Cyber-physical testing	Joachim Taiber (IAMTS)
14:05	Panel discussion: How to move forward...	Moderator: Marius Dupuis (ASAM) Discussion participants from Anyverse, ASAM, ASCS, AVL, DLR and IAMTS
15:00	End of meeting	

What might be missing:

- Behavior models (agents)
- Environment models
- Experimental design (how to use simulation in validation)
- etc.