

Quantifying Simulation Quality

From synthetic to real, from academia to industry

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Hochschule Düsseldorf
University of Applied Sciences

HSD



Association for Standardization of
Automation and Measuring Systems

HSD in a nutshell

Alexander Braun

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University of Applied Sciences

HSD

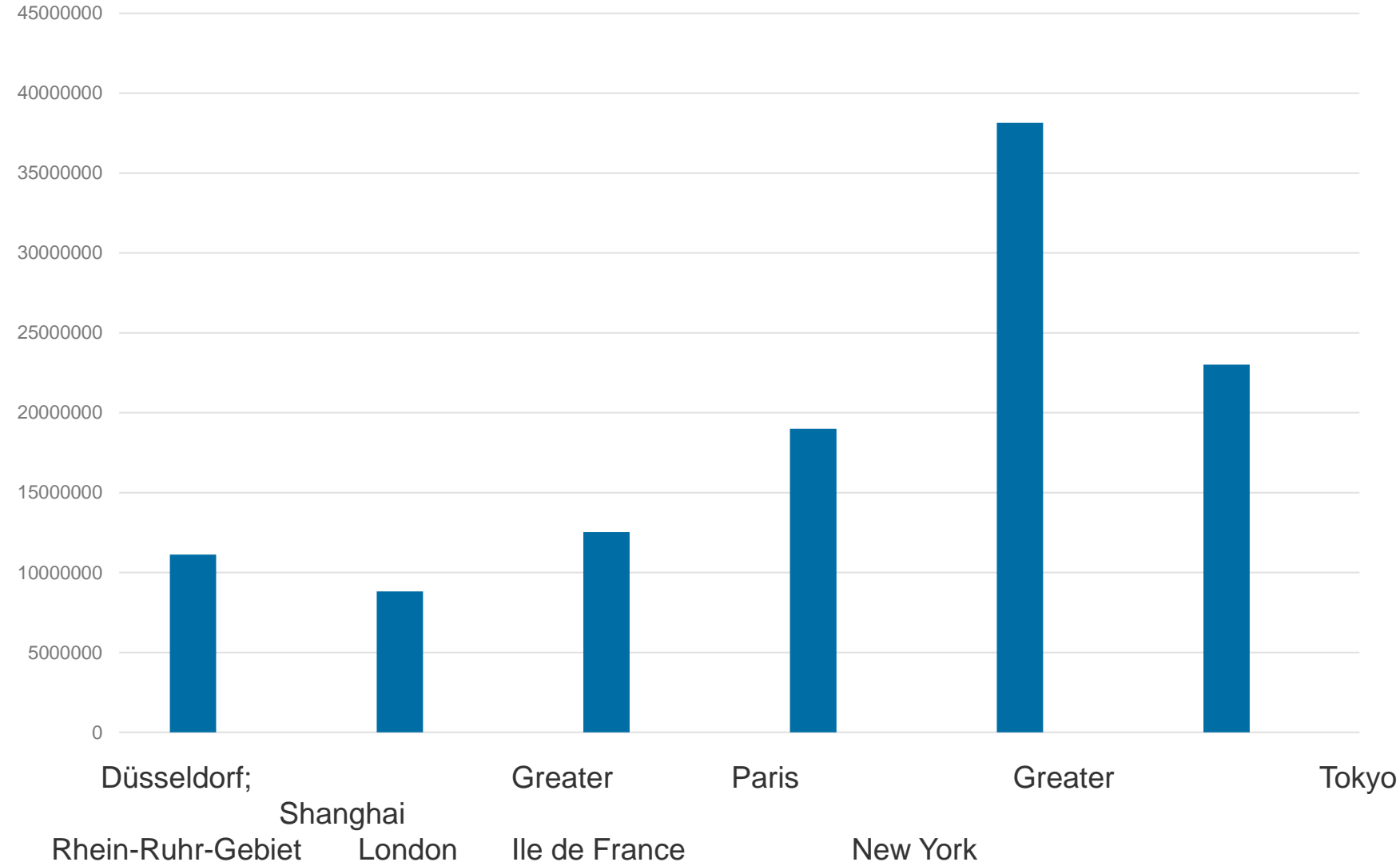
HOCHSCHULE DÜSSELDORF

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Quantifying Simulation Quality
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Location – International Comparison

Einwohnerzahl



Facts and figures

11.343

Students

585

Academic and administrative/
technical staff members

180

Partner universities worldwide

187

Professors

2

Endowment professors

numerous

partners in business and industry,
in artistic and social institutions

Faculties at hsd

Peter Behrens School of Arts
Faculty of Architecture



Peter Behrens School of Arts
Faculty of Design



**Faculty of Electrical Engineering
and Information Technology**



**Faculty of Mechanical
and Process Engineering**



**Faculty of
Media**



**Faculty of Social Sciences
and Cultural Studies**



**Faculty of
Business Studies**



Faculty of Electrical Engineering and Information technology

1.613 Students
23 Professors

Study Programmes:

Electrical Engineering and Information Technology (BEng)

Electrical Engineering and Information Technology (Dual System) (BEng)

Industrial Engineering – Electrical Engineering Branch (BEng)

Industrial Marketing and Technical Sales

Electrical Engineering and Information Technology (MSc)



RESEARCH GROUP PROF. BRAUN

- **Linking optical quality to AI performance**
- **Challenges of mass production**
- Physical-realistic simulation models for optics (camera, windscreen)
- Validating simulation quality: "Simulating tests to test simulation"
- Optical test framework for the development of robust AI models
- Trustworthy AI: developing metrics and processes to validate neural networks (QUEENS framework)

08.07.2021



University of applied sciences: research

“So, you focus on **applied research** instead of ground or basic research?”

In my group we focus on **ground research** which is directly **applicable** in the industry!