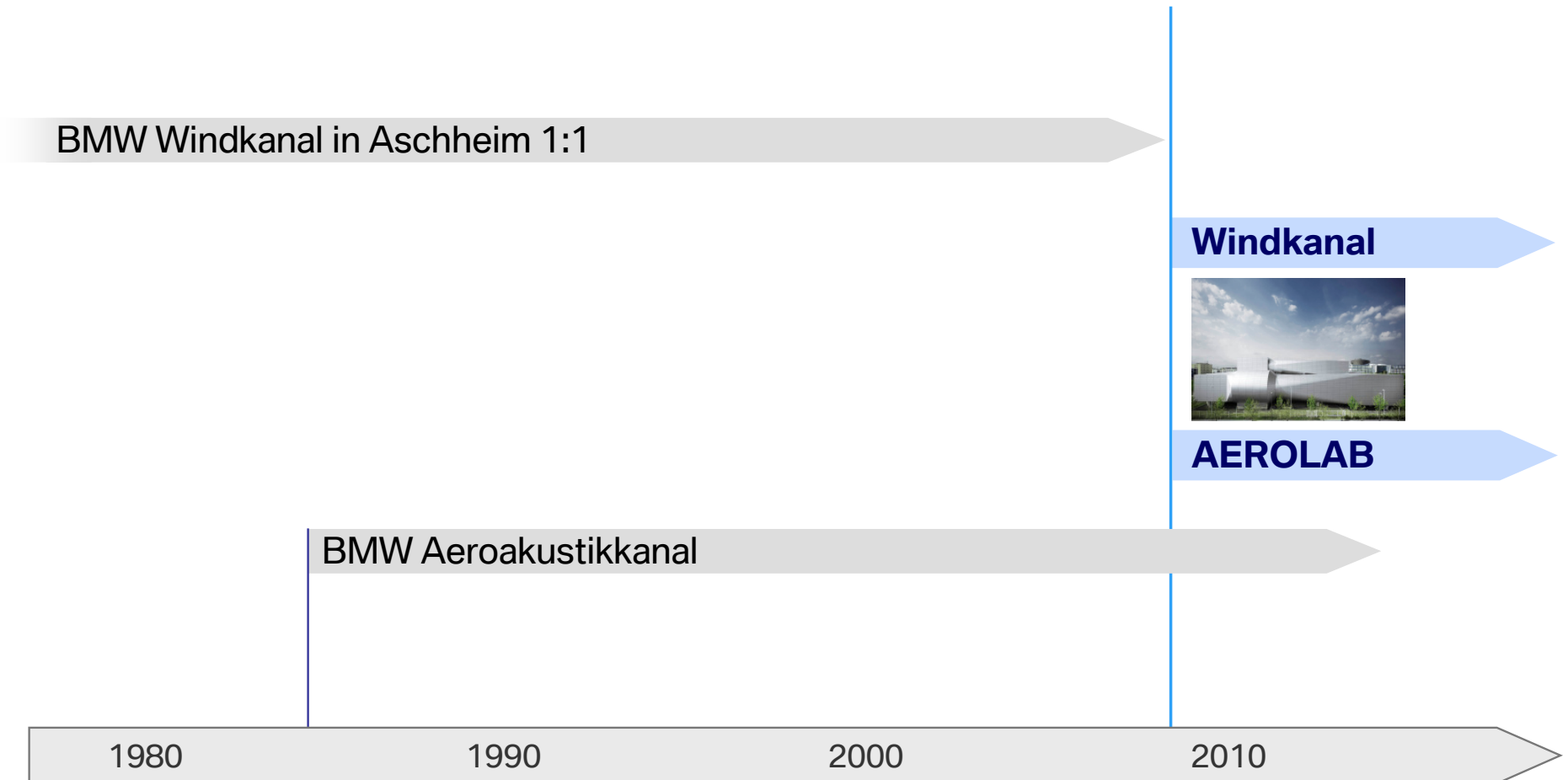


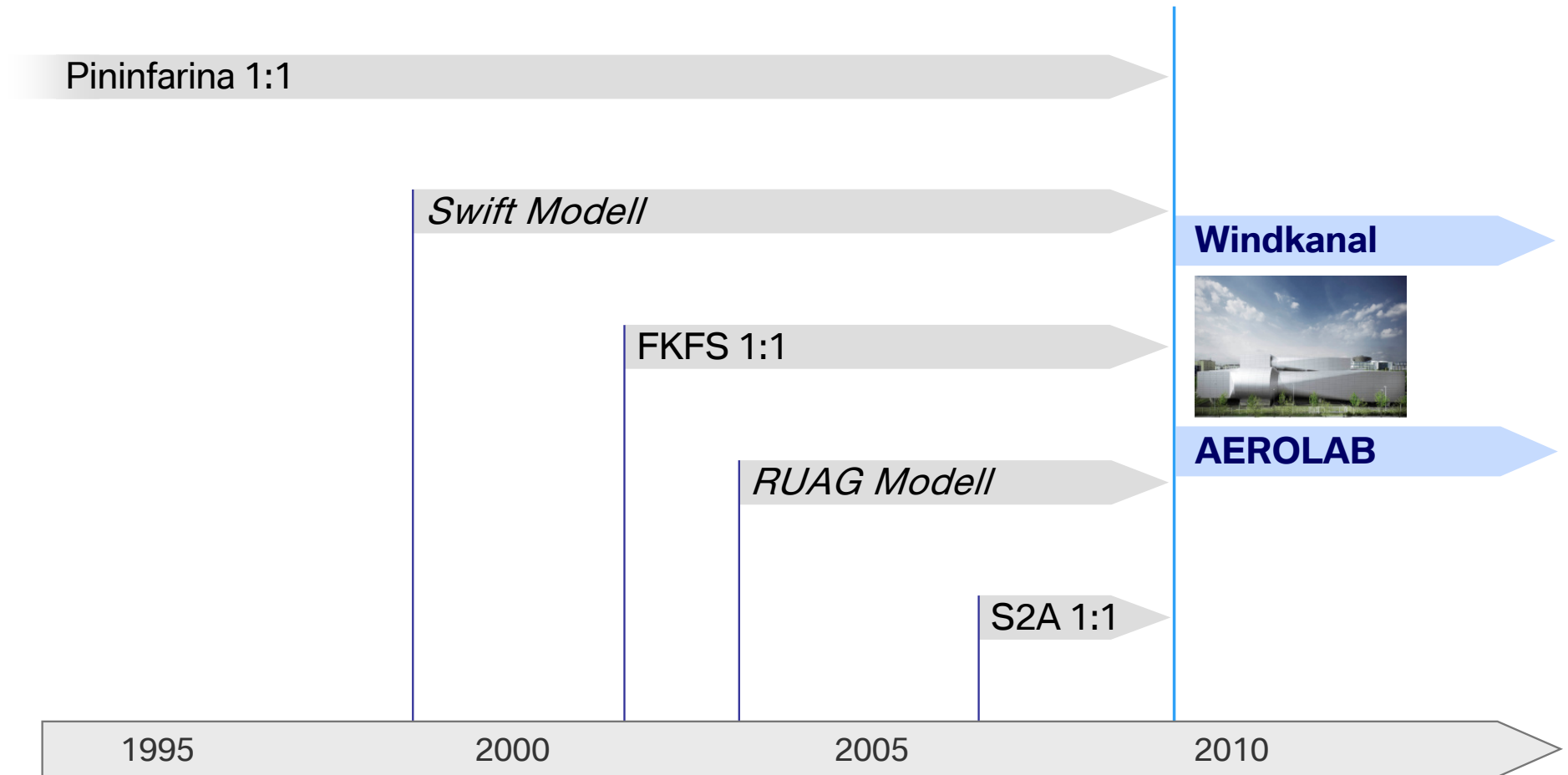
AEROLAB der BMW Group.

Windkanäle der BMW Group.

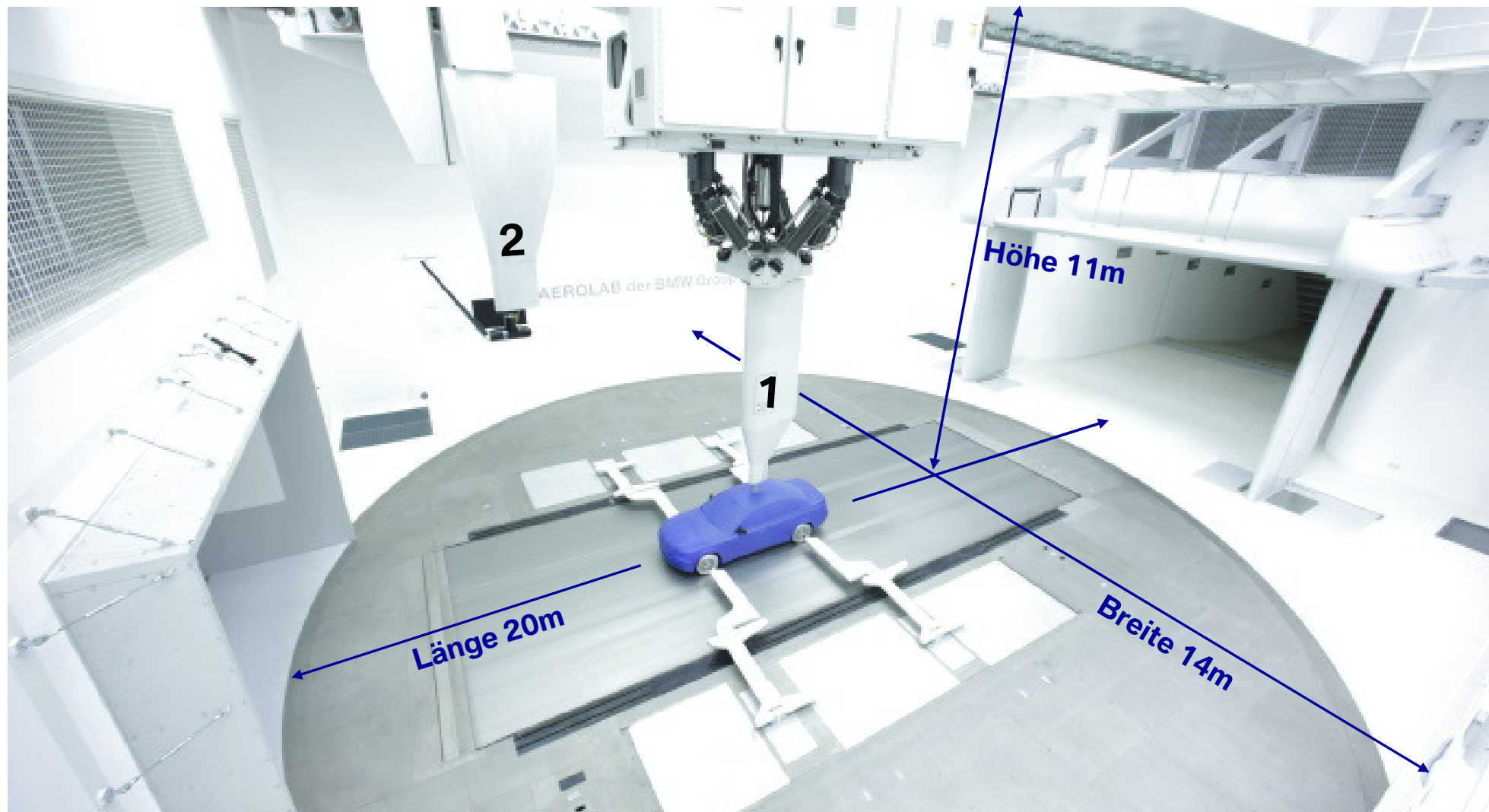


AEROLAB der BMW Group.

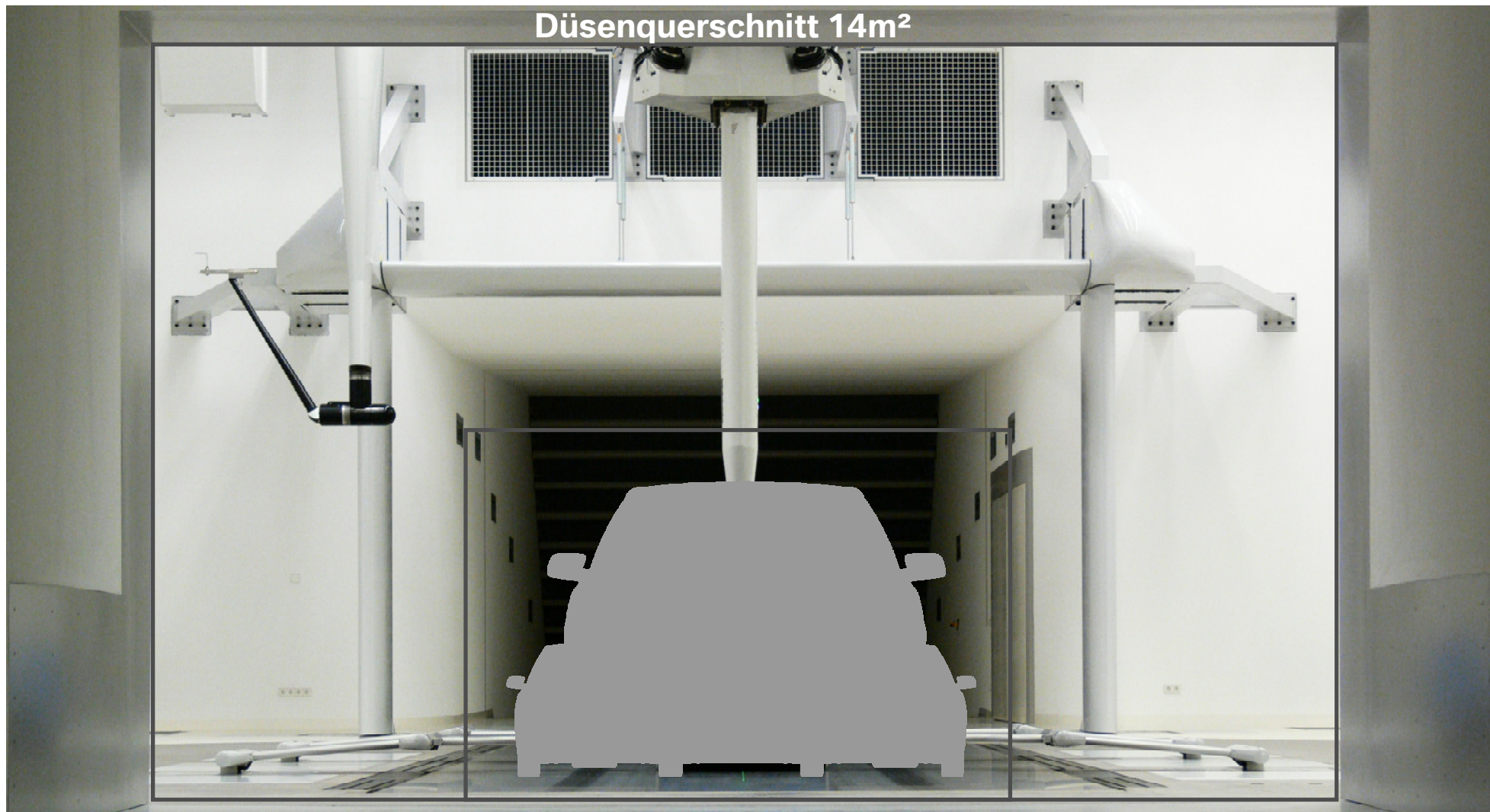
Nutzung externe Windkanäle mit Laufband.



AEROLAB der BMW Group. Plenum.



AEROLAB der BMW Group. Düsenquerschnitt.

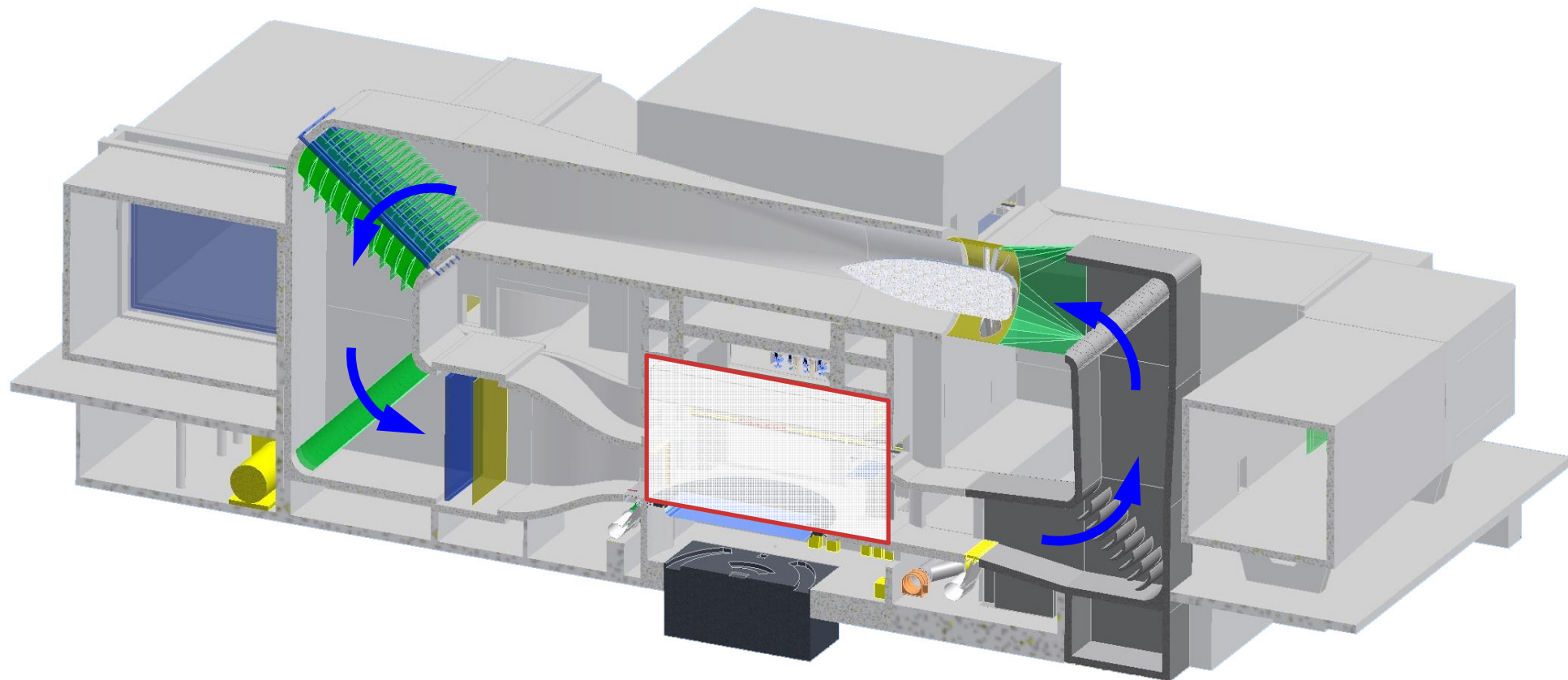


AEROLAB der BMW Group. Rolling Road.

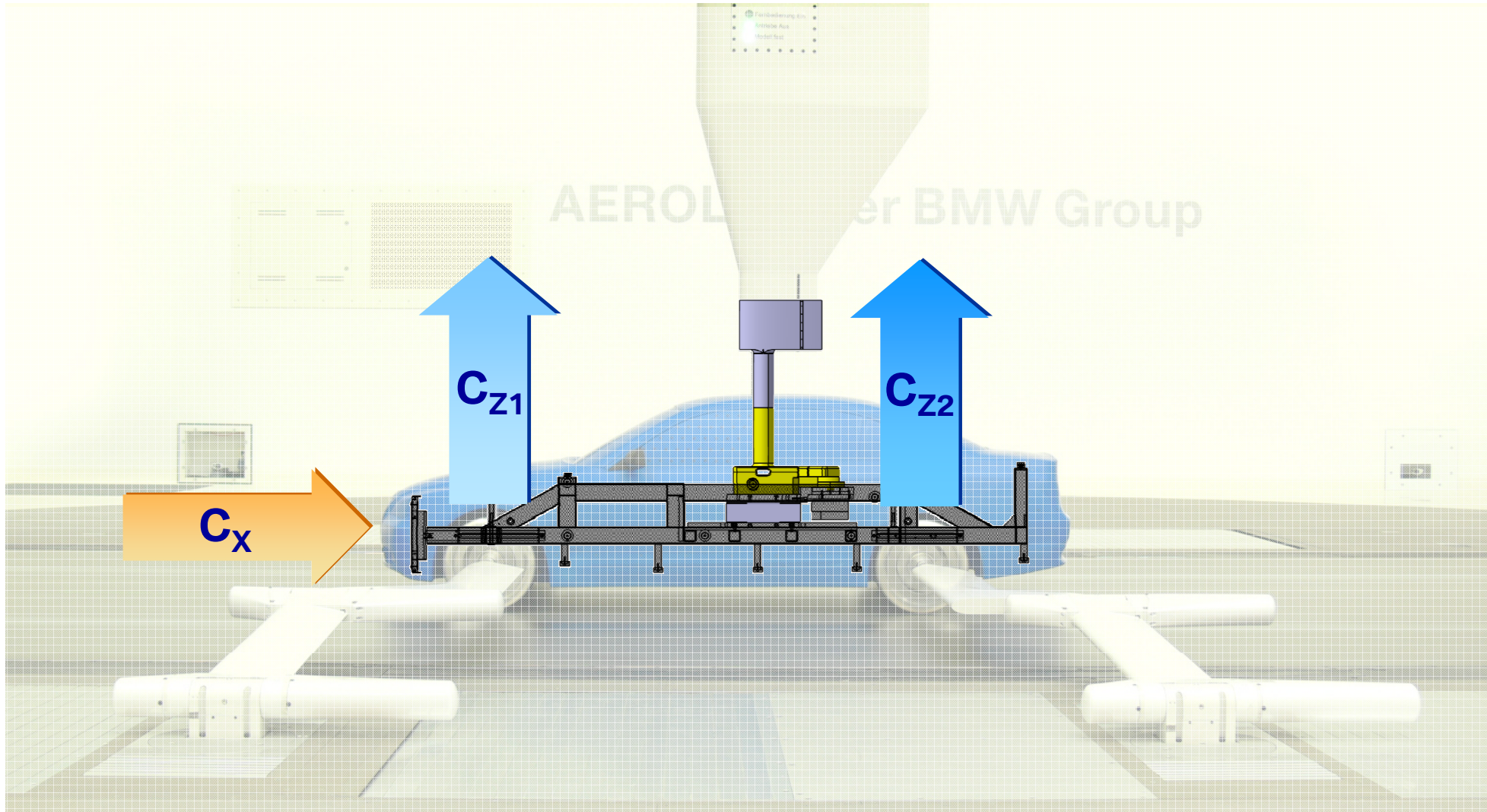


AEROLAB der BMW Group.

Gesamtansicht AEROLAB.

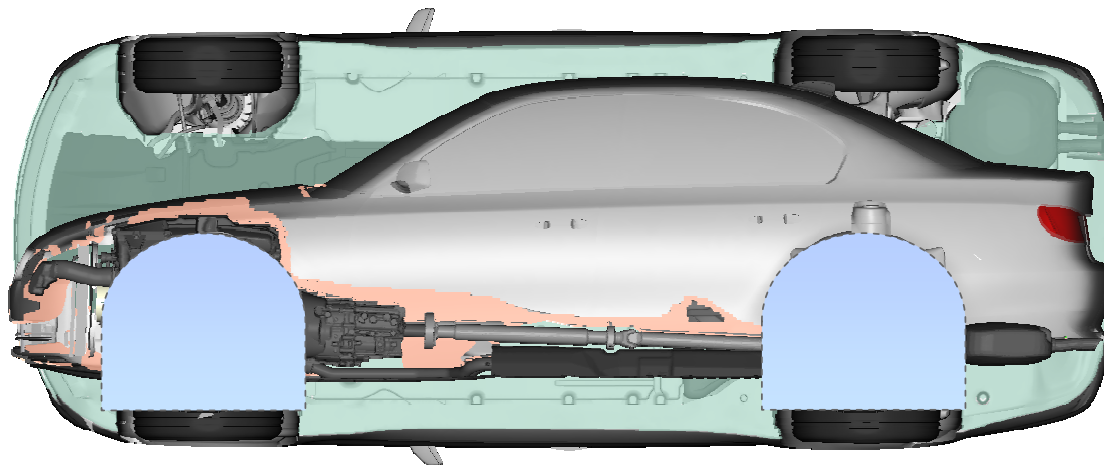


AEROLAB der BMW Group. Kraftmessung.



AEROLAB der BMW Group.

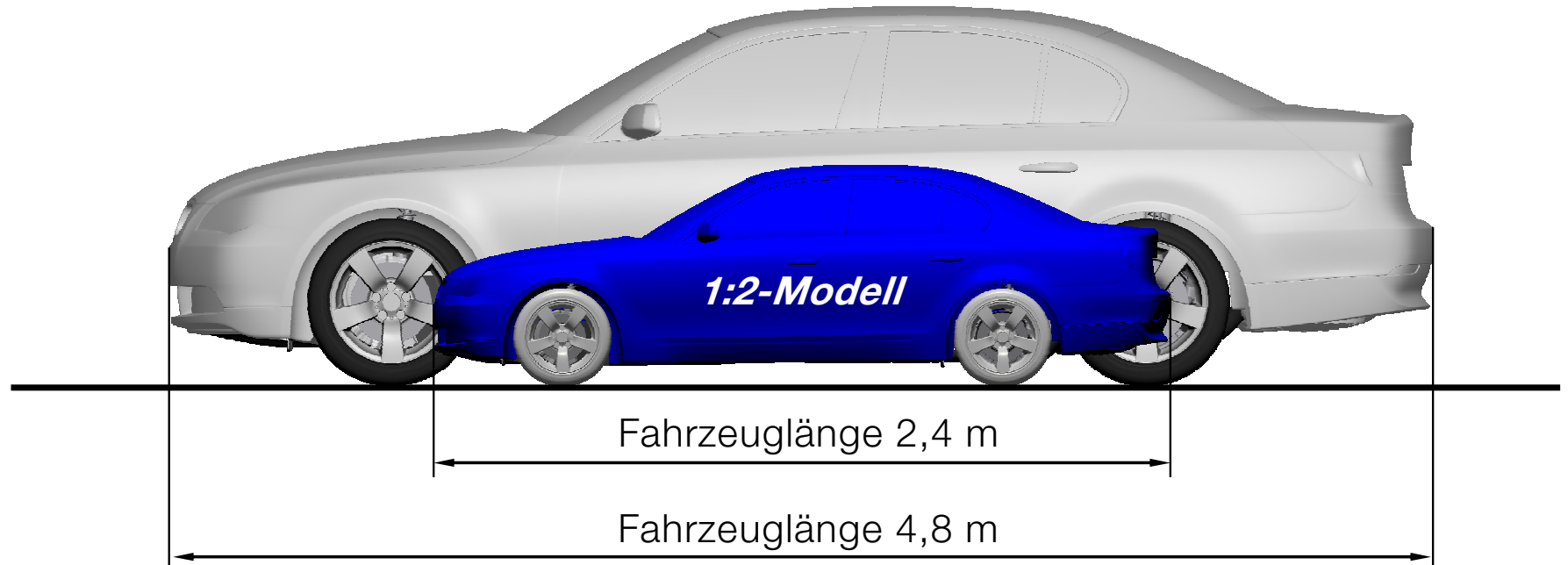
Widerstandsanteile.



Form & Proportionen	40%
Rad / Radhaus	30%
Unterboden	20%
Funktionsöffnungen	10%
Gesamtwiderstand	100%

AEROLAB der BMW Group.

Strömungsmechanische Ähnlichkeit.



Messgeschwindigkeit:

1:1-Fahrzeug

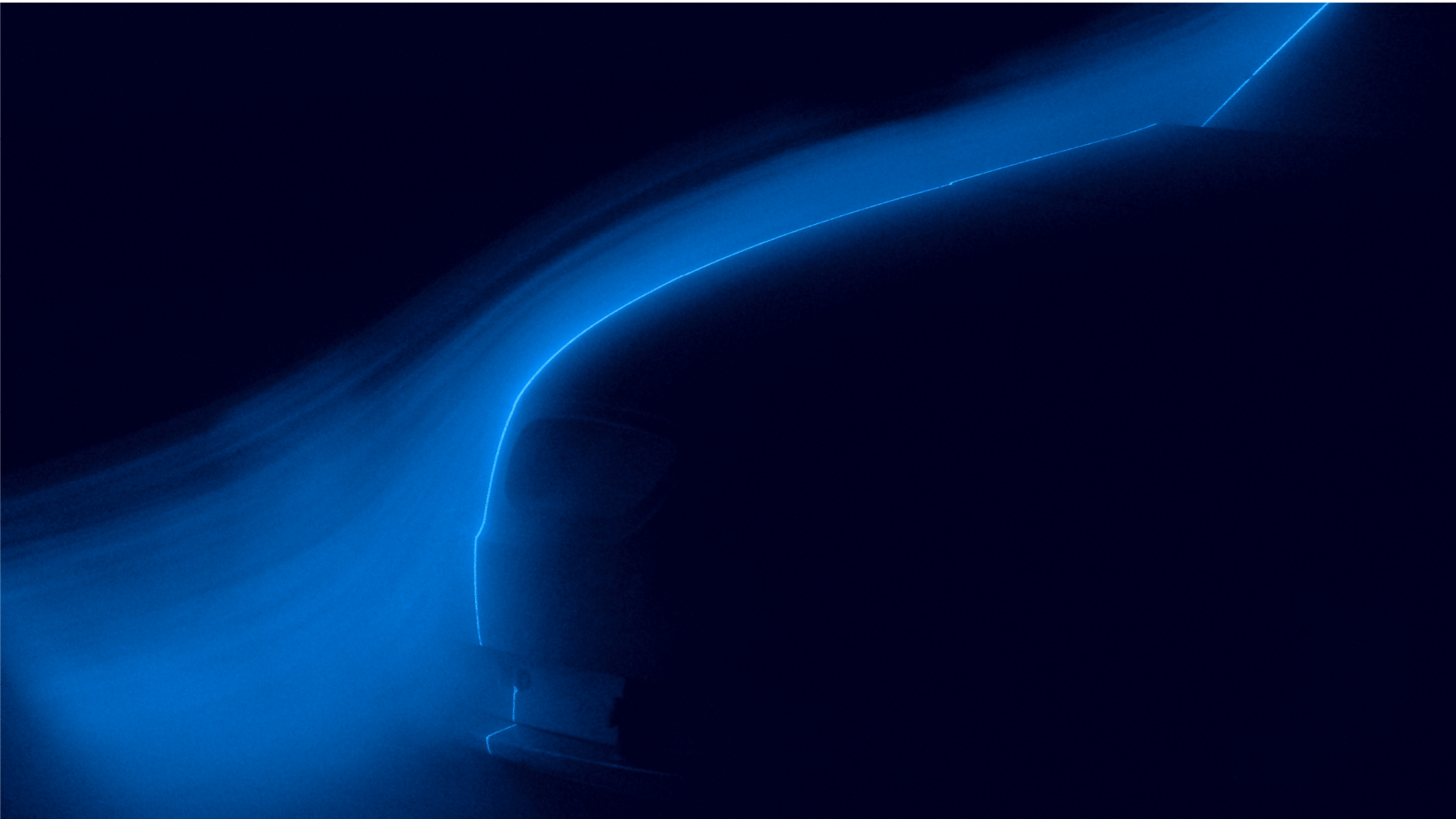
1:2-Modell

Beispiel:

100 km/h



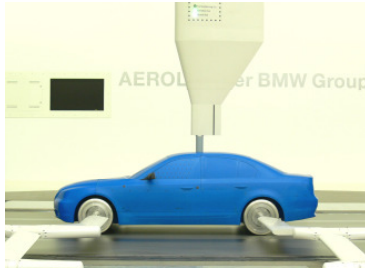
200 km/h



AEROLAB der BMW Group.

Widerstandsmessung mit stehenden Rädern.

C_x [-]

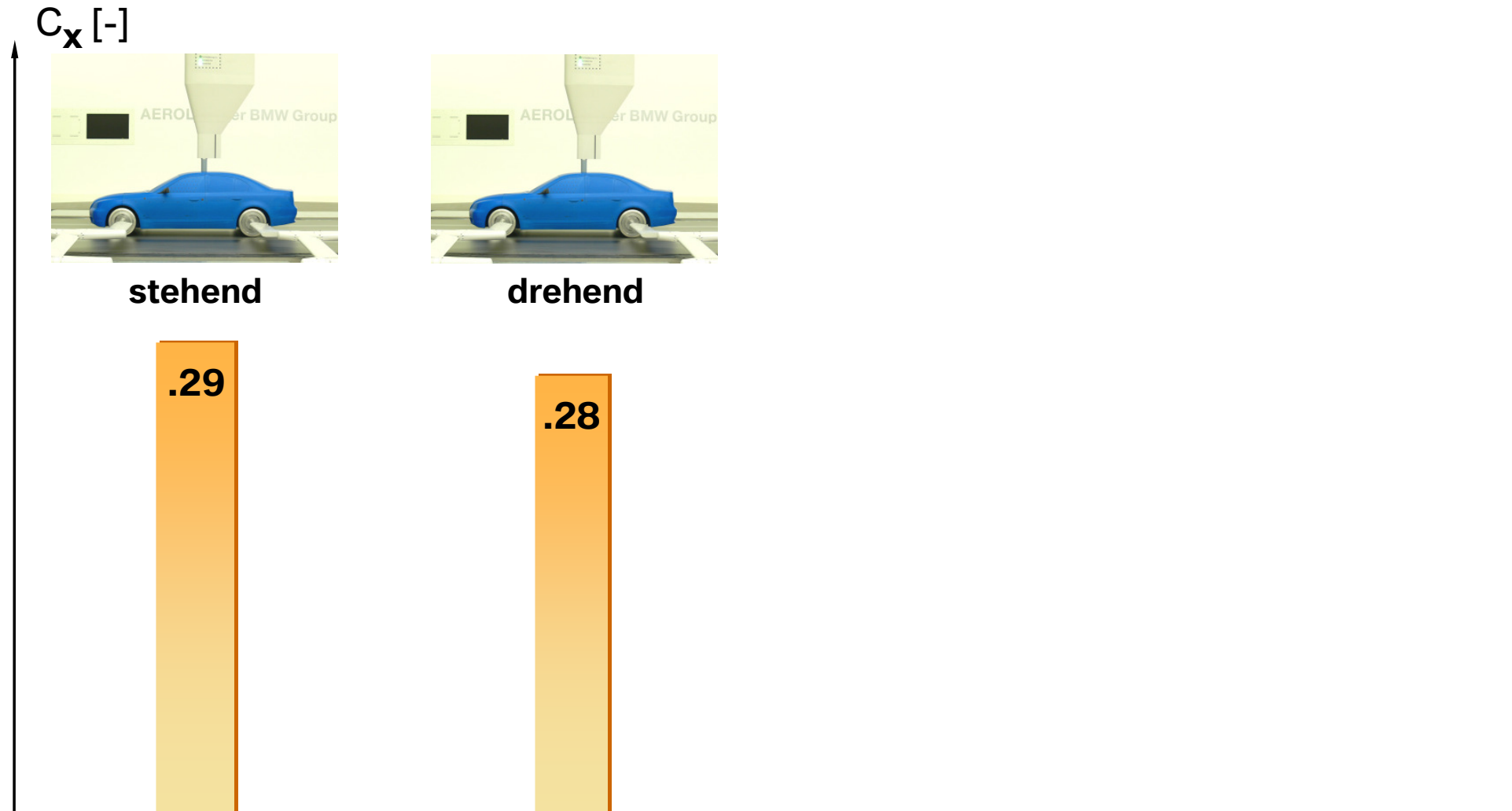


stehend

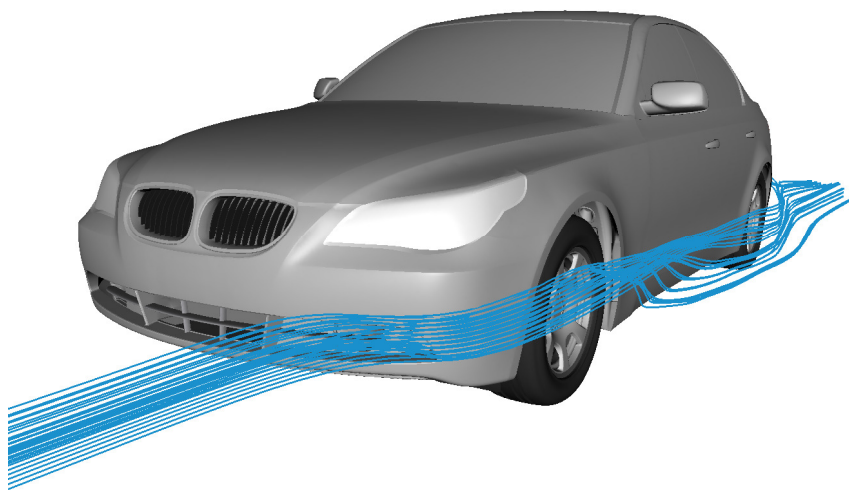
.29

AEROLAB der BMW Group.

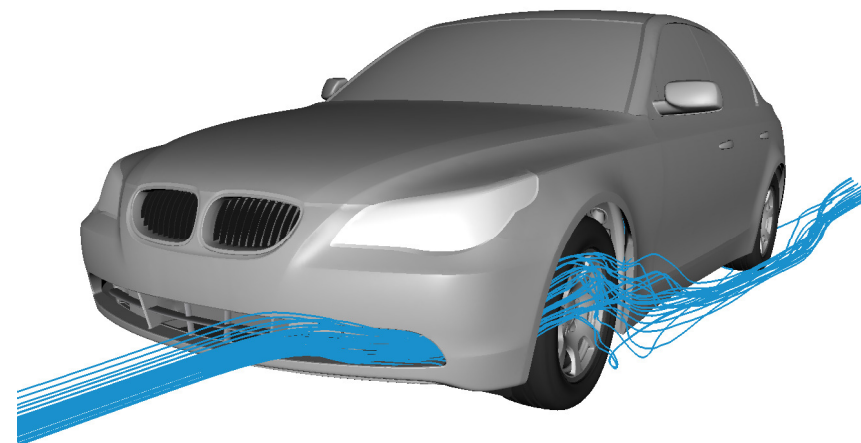
Widerstandsmessung mit drehenden Rädern.



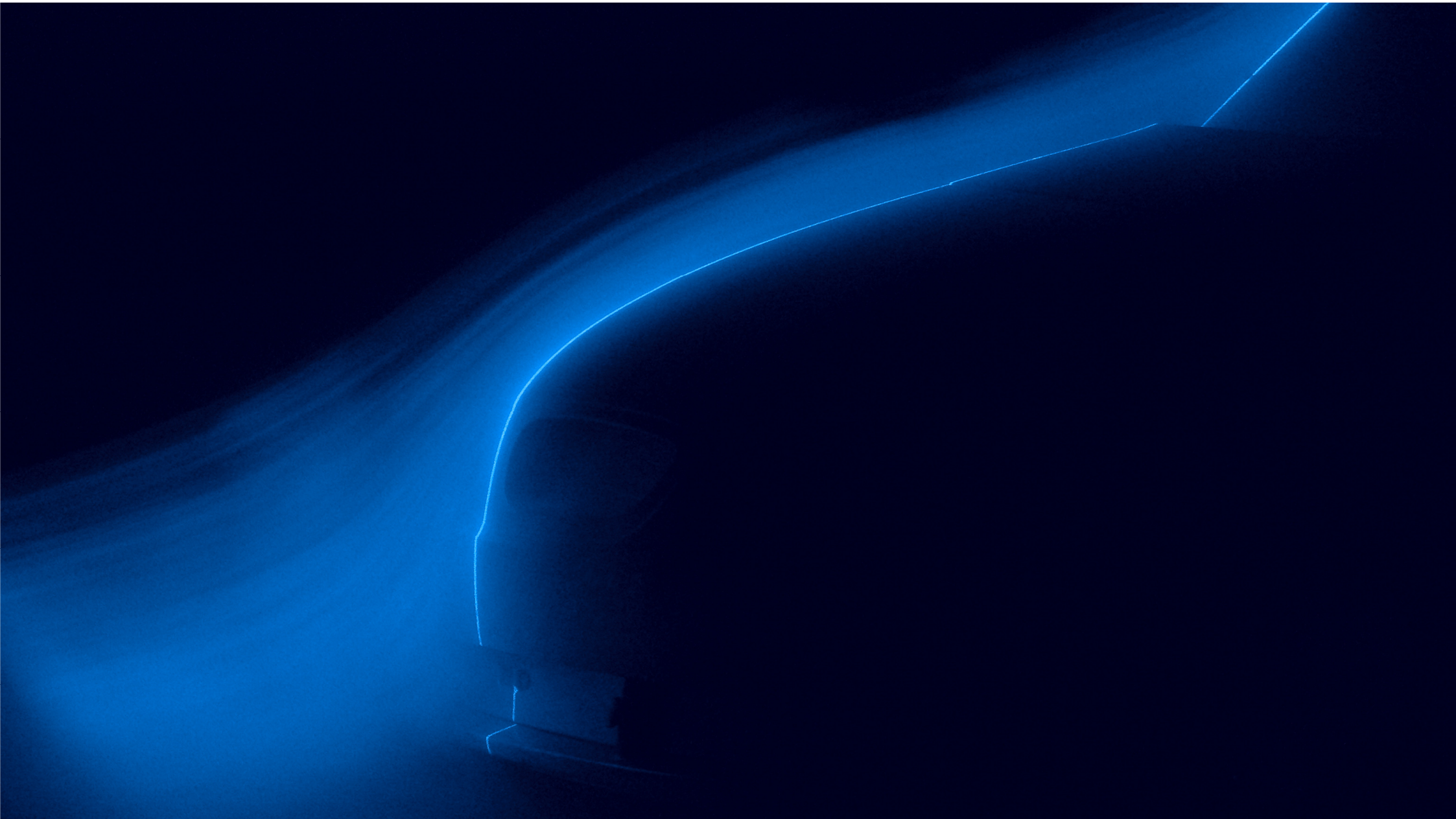
AEROLAB der BMW Group. Funktionsprinzip Air Curtain.



Ohne Air Curtain

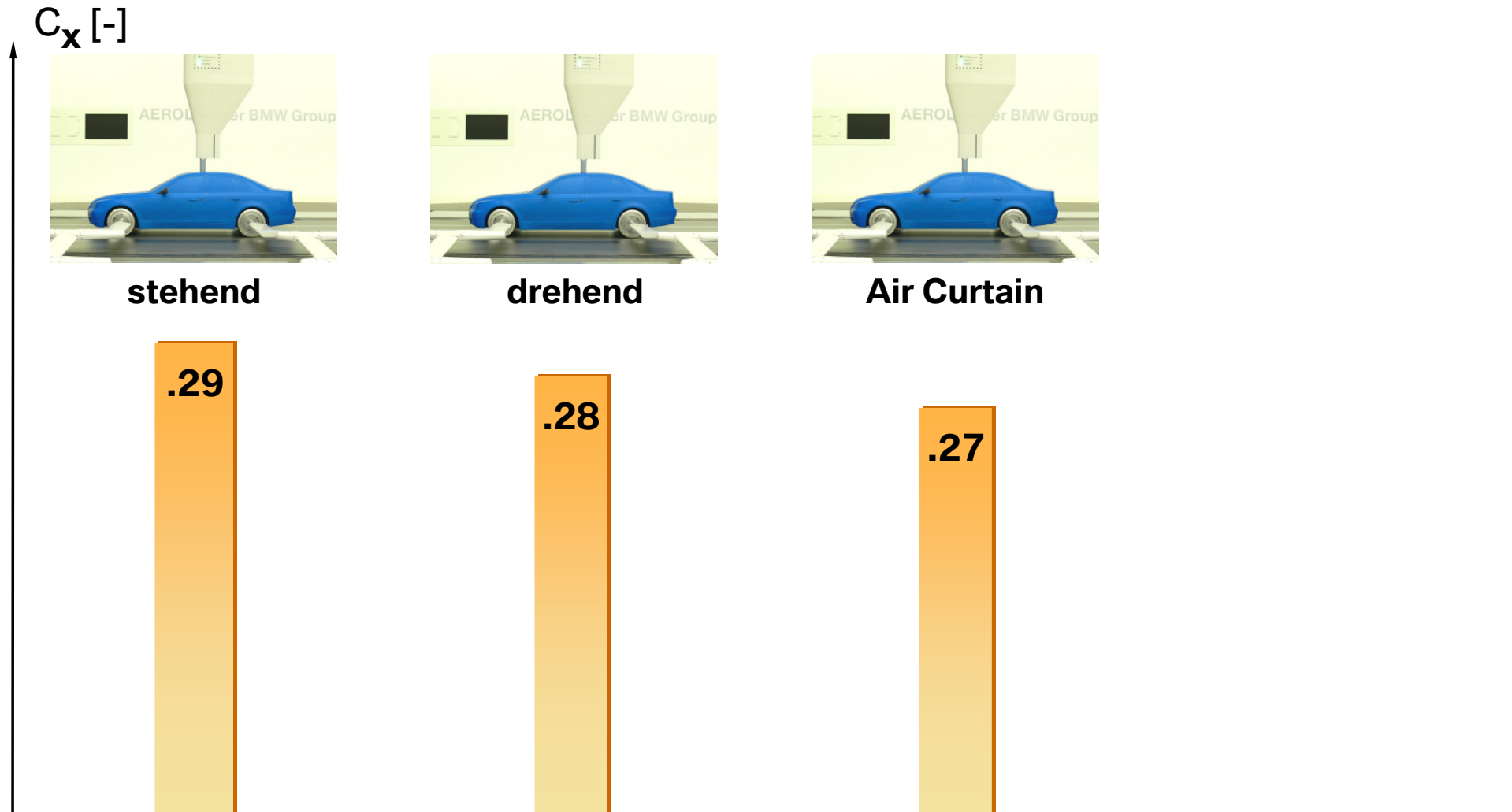


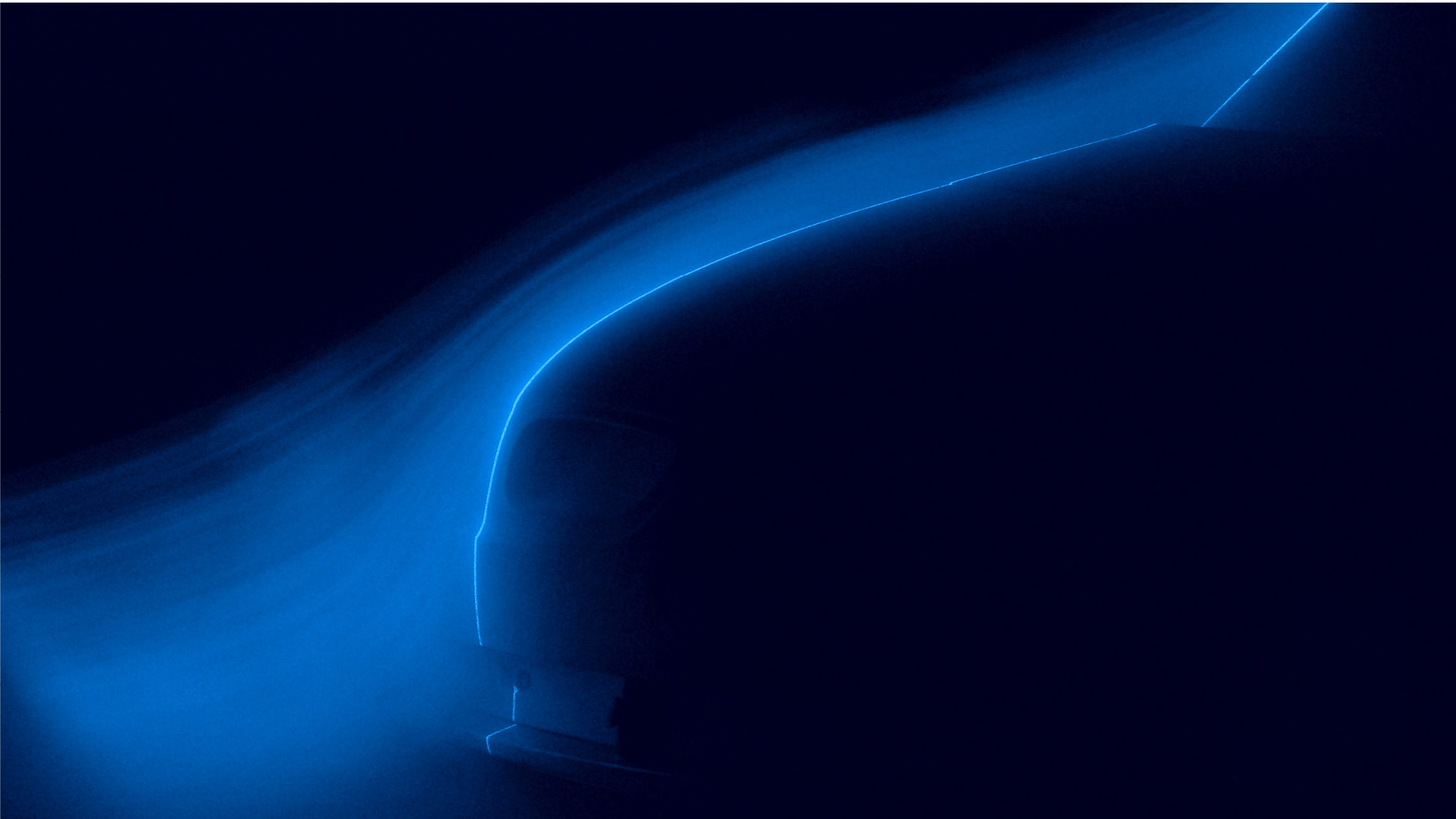
Mit Air Curtain



AEROLAB der BMW Group.

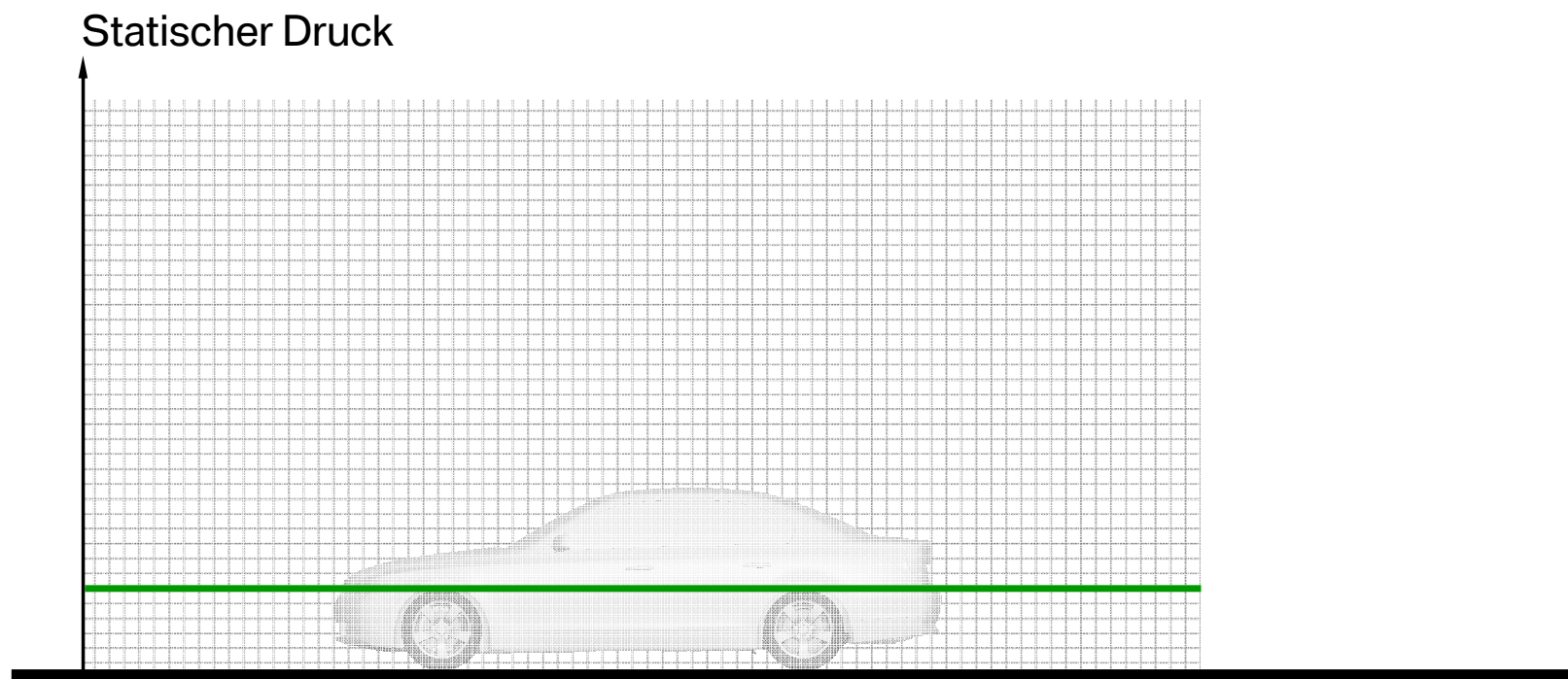
Widerstandsmessung Air Curtain.





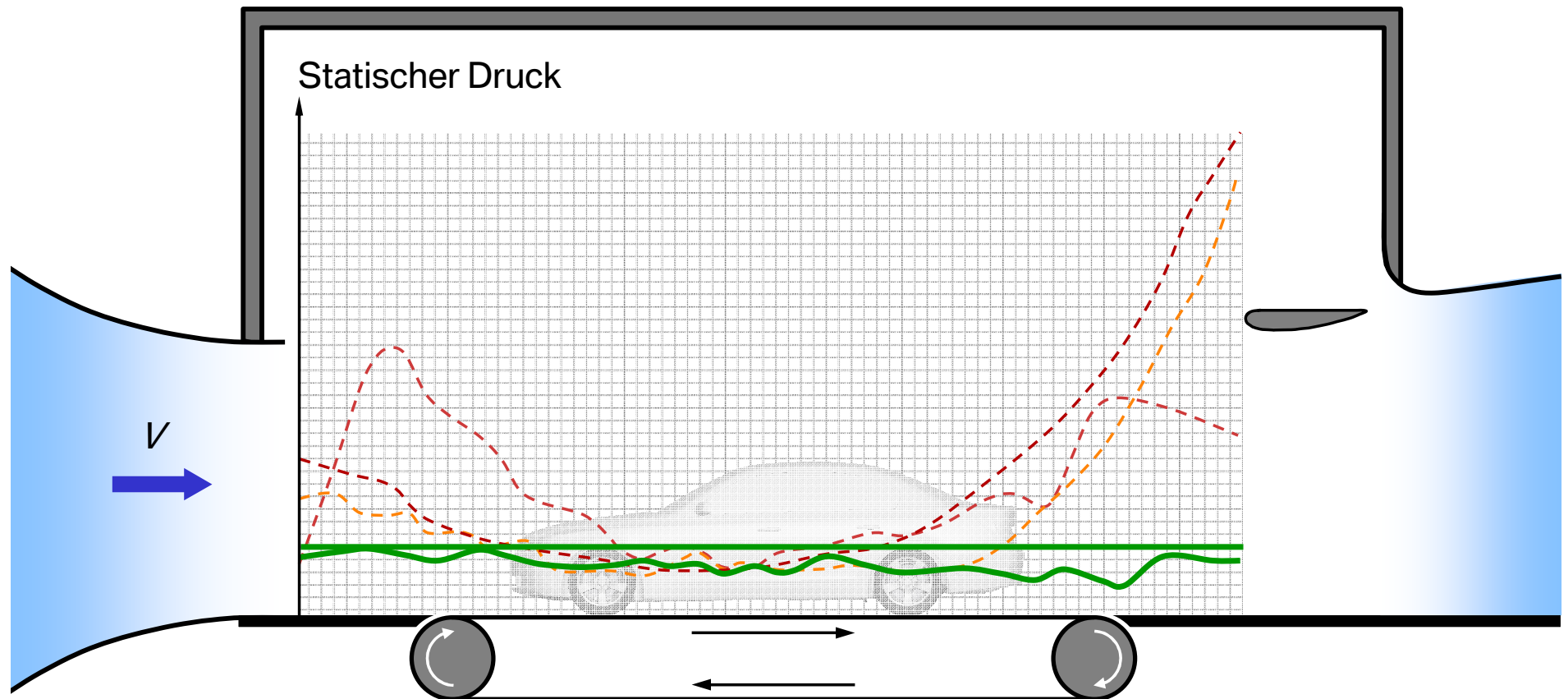
AEROLAB der BMW Group.

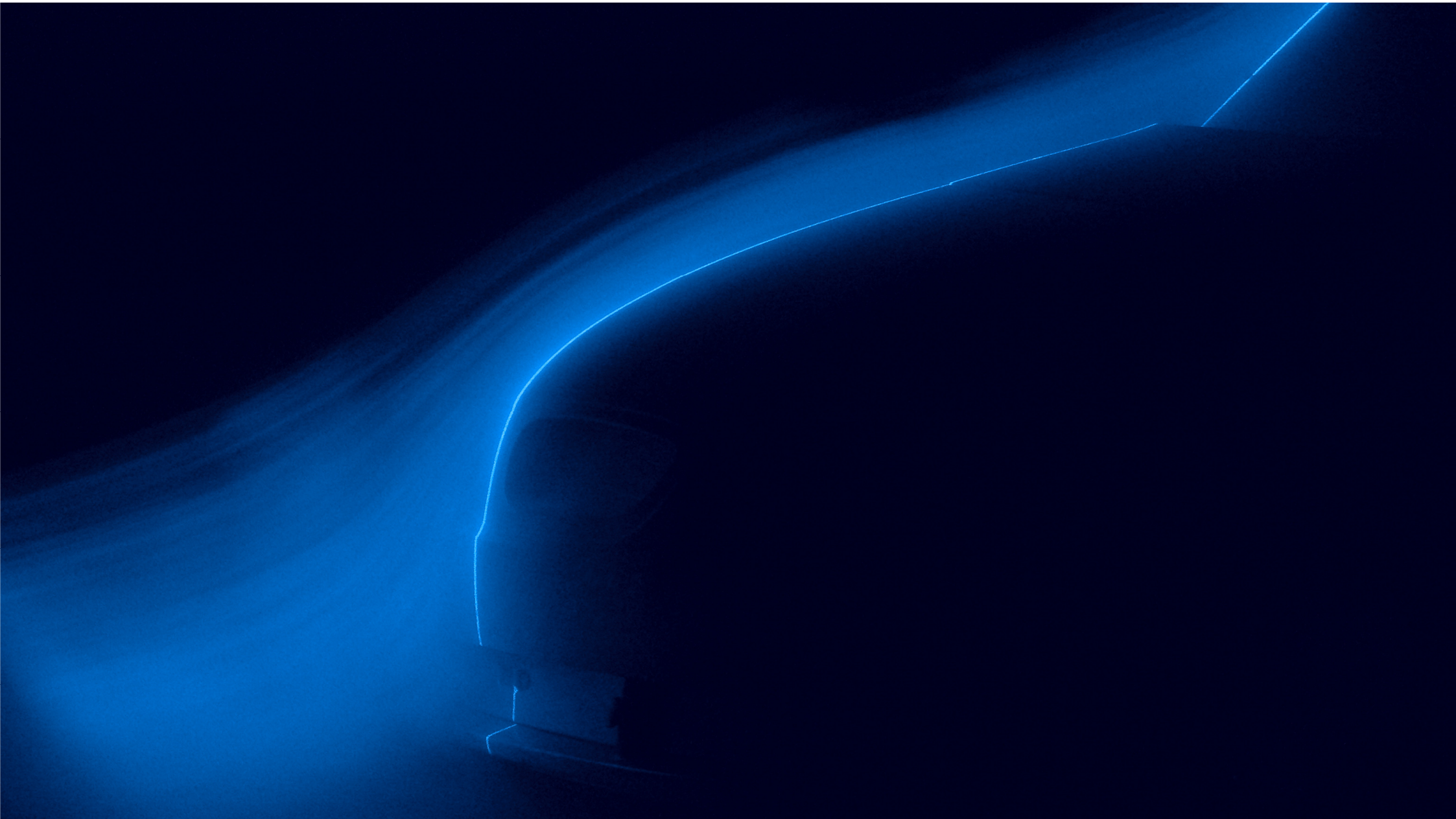
Druckgradient auf der Straße.



AEROLAB der BMW Group.

Druckgradient im AEROLAB.





AEROLAB der BMW Group.

Widerstandsmessung „Gliding Fish“.

