

## Urban Air Mobility Ingolstadt IN<sup>the Air</sup>



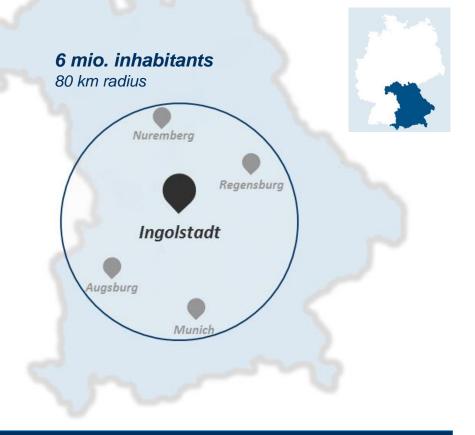


Technische Hochschule Ingolstadt

## **Basic Data Region Ingolstadt**



- Located in the centre of Bavaria
- Fastest growing city in Germany
  → + 12 % since 2010
- Population in region: 500.000
- Close to Munich, Nuremberg, Augsburg and Regensburg



Ingolstadt – a economically powerfull region with high growth forecast.





#### **Basic Data Region - Economy**

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- Economic ranking 2017: 2. Place
  - → one of Germany's most prosperous cities Center of Automotive and Aviation Technologies
- Investment in R&D: 4,4 % per year
  → one of Germany's top five regions
- Patent application rate: 486 per 100 T locals
  → highest rate in Bavaria
- Rate of engineers in population: 7,2 %
  → highest rate in Bavaria

## AIRBUS

- Testing area for unmanned flight vehicles (UAV) five kilometers south of Ingolstadt
- Technische Hochschule tingolstadt
- Study programmes focusing on research in mobility

- Headquaters in Ingolstadt
- Expanding in the area of
- innovative mobility services



- Startup center dedicated to digitalisation in mobility applications

Economy dedicated to mobility with prominent industrial leaders.

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### Challenges



#### Massive Traffic:

- Motorway A9 Munich Ingolstadt Nuremberg
  105.000 vehicles per day
- **Traffic jam** Munich Ingolstadt Nuremberg 500.000 vehicles per day
- > 310.000 cars registered in Ingolstadt Region

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High need for new concepts of urban and inter-urban mobility.

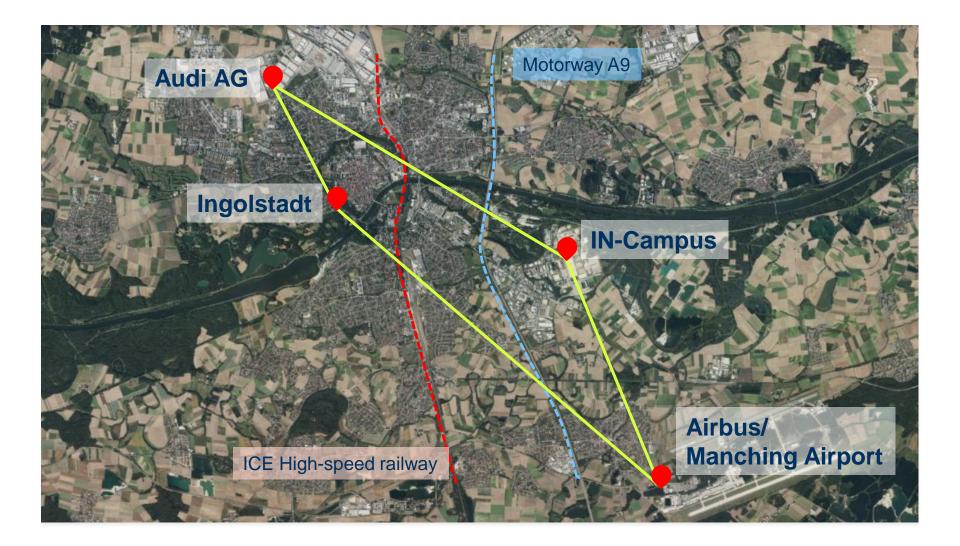
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### Urban mobility hot spots









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## **City of Digital Transfer**







Backbone and engine of regional Economy

autonomous driving





Test track for autonomous driving





Ingolstadt is on the way to get Bavaria's Centre in Smart Mobility Services.

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#### **Solution**













## Integrating urban air mobility into city traffic concepts



HUB 1 Ingolstadt Audi AG Business area

#### HUB 2 Ingolstadt Nordbahnhof

Central district and connection to regional railway system

#### HUB 3 Ingolstadt Main Station

Connection to high-speed railway ICE





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### **Development of HUB-Network**





Pilot-HUB in Ingolstadt Phase 2



Core-HUBs in Ingolstadt and Munich

Phase 3



HUB-Network

The HUB-Network will cover 6 million inhabitants and has a GDP of over 300 billion EUR (80 km Radius Ingolstadt).

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### Technology development



#### Stage of development 1



www.trendsderzukunft.de

Electric helicopter with pilot

#### Stage of development 2



Autonomous areal vehicle

#### Stage of development 3



www.ingenieur.de

Flying cars

From helicopters controlled by pilots to autonomous flying cars.

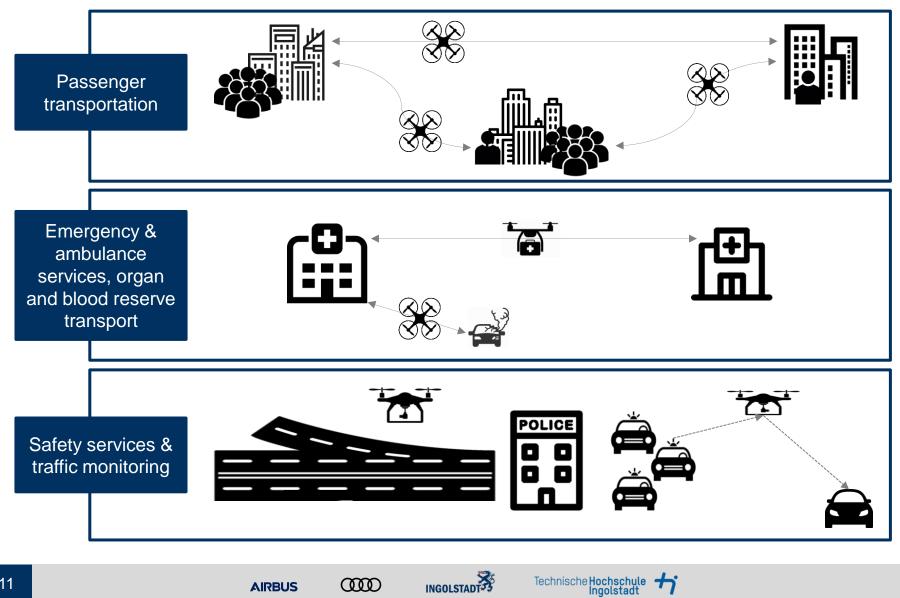
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## Areas of application





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## Signing ceremony Federal Government 20.06.2018, Berlin





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Dr. Christian LÖSEL Stadt Ingolstadt

Irazia VITTADINI

Frazia VITTADINI Airbus Defence und Space GmbH

**AIRBUS** 

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Norother & Dorothee BÄR, MdB

INGOLSTADT

Andreas Cheurs

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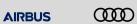
Dorothee BAR, MdB Andreas SCHEUER, MdB Staatsministerin für Digitalisierung Bundesministerium für Verkehr und digitale Infrastruktur

Technische Hochschule Ingolstadt

# Signing ceremony Bavarian State Government 19.06.2018, Munich











**Support** 





Extensive support network with partners from industry, research and government.

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#### City of Ingolstadt Directorate

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#### Kick-off Workshop

Wednesday, 25th of July 2018 Town House Ingolstadt



