



***Frankfurt Airport
Case Study: New Runway 2011
Land Use Planning***

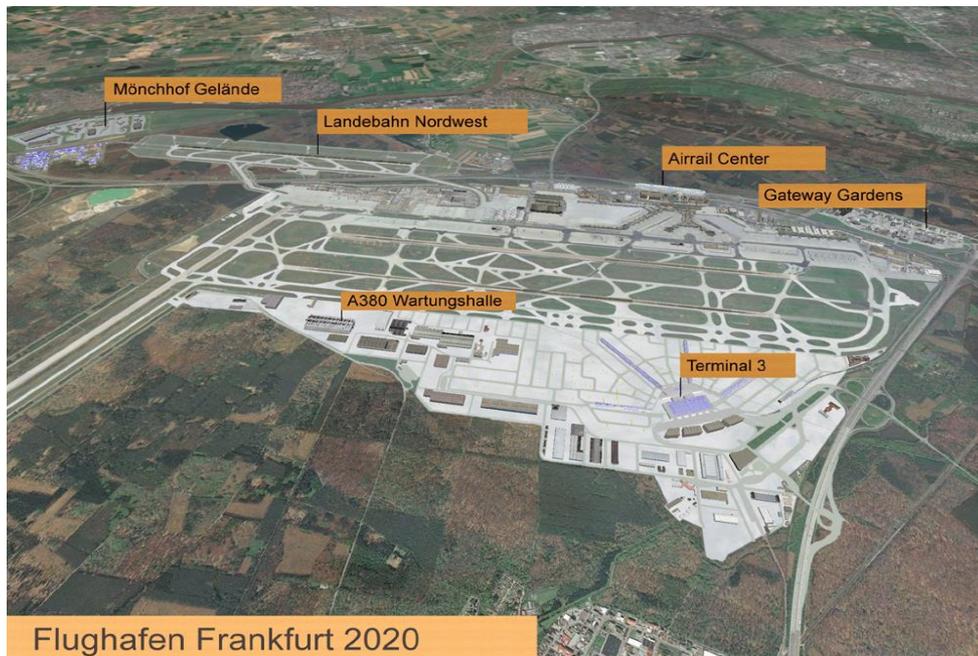
ANIMA Workshop, Airport Regions Conference
Brussels, 18 February 2019

Attorney at Law Thomas Lurz, Fraport AG



Expansion of Frankfurt Airport

Legal basis: Planning approval notice of December 18, 2007
Competent authority: Hesse Ministry of Economics, Transport and Regional Development
Commissioning: Runway Northwest, October 21, 2011,
Terminal 3 scheduled for 2021 (Pier G) and 2023



2 takeoff and landing runways
1 takeoff runway
2 terminals
*New: 1 landing runway
1 terminal*

Projection for the expansion case*:

Passengers: 88.3 million
Cargo: 3.16 million metric tons
Movements: 701,000

* Expected growth delayed by global financial and economic crisis, among other things

Noise Protection Measures (Actions) at Frankfurt Airport

a) By authorities/legislation:

Examples:

- Ban on night flights for scheduled aircraft movements from 11 p.m. to 5 a.m.
- Operating restrictions for loud aircraft types at certain times of the day
- Noise insulation in noise protection zones (German Aircraft Noise Protection Act)

b) On a voluntary basis (not legally binding)

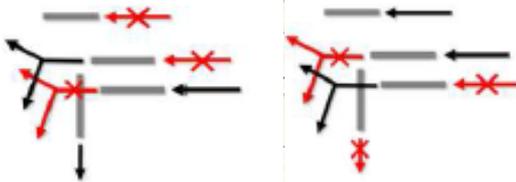
Examples:

- Noise emission ceiling (noise limit, so called “Lärmobergrenze”)
- Noise respite periods (noise intermissions, so called “Lärmpausen”)
- Noise abatement operational procedures (i.e. minimum noise routes, continuous descent operations)

Additional Approaches to Active Noise Abatement (Examples)

7-hour Noise Intermission at night
e.g. alternating runway use

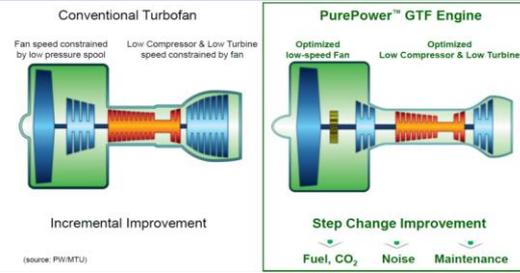
(22:00 – 23:00) (5:00 – 6:00)



Reduction of ground level noise
e.g. aircraft towing to hangar

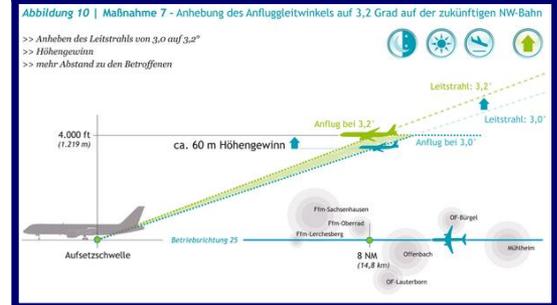


Less noisy aircraft
e.g. new engine/aircraft generation



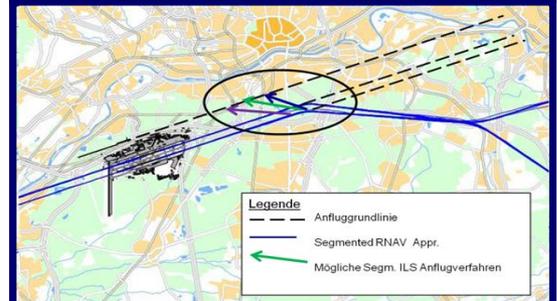
Increase height

e.g. increased glide slope for final approach



Less flights over densely populated settlement areas

e.g. segmented RNAV-approach



Land Use Planning

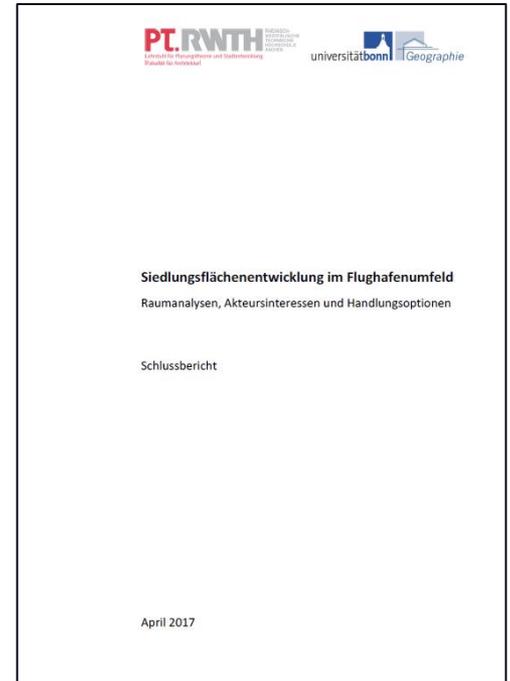
a) Legal basis:

Examples:

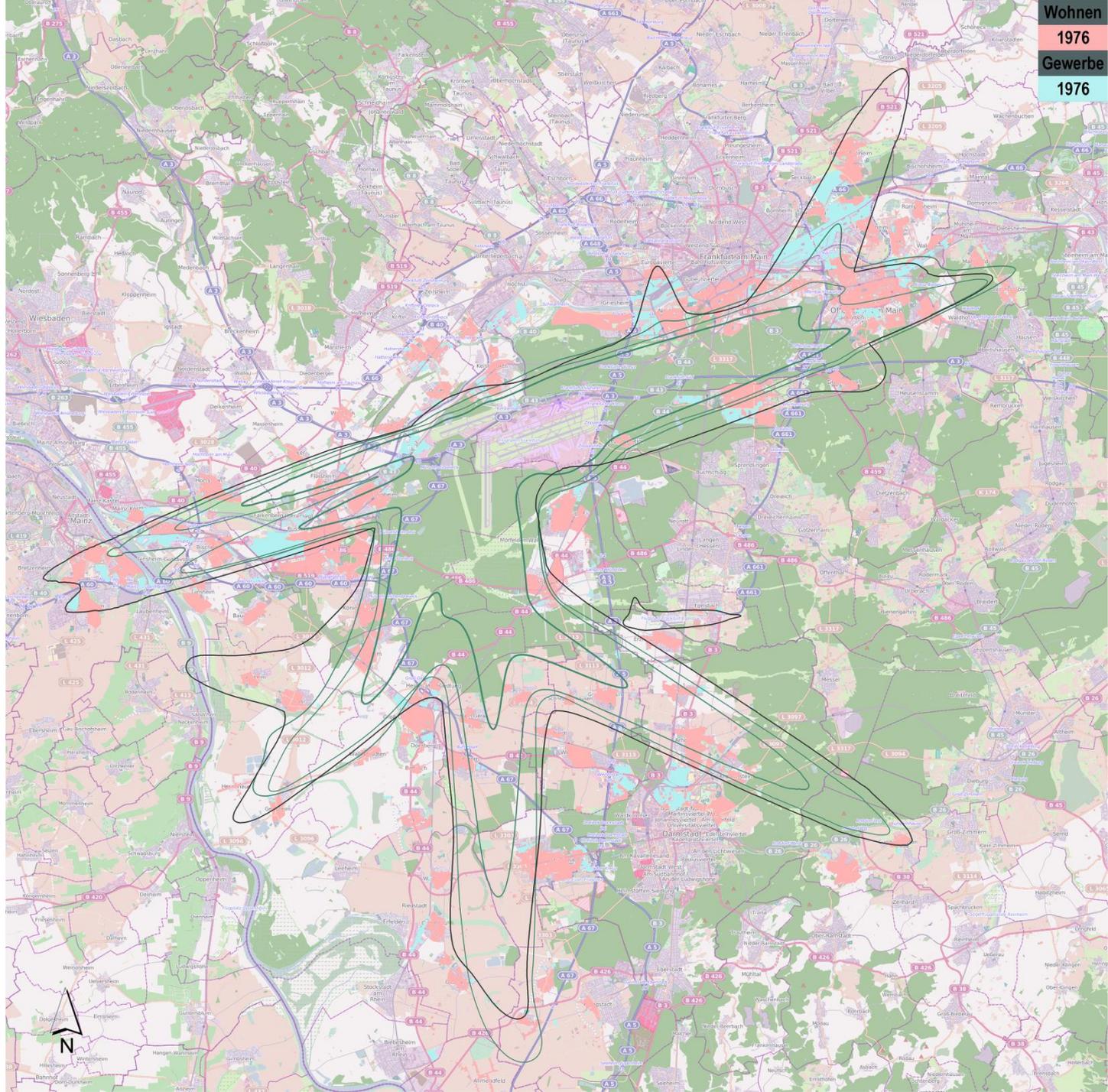
- Regulation (EU) No 598/2014 (noise-related operating restrictions)
-> Balanced Approach (ICAO Resolution A33-7): LUP prior to operating restrictions
- German Aircraft Noise Protection Act (2007): Construction ban in noise protection zones
- Spatial planning
-> Regional Development Plan of Hesse and the Regional Plan for South-Hesse (Hessian Spatial Planning Act)

b) Development of residential and industrial areas at Frankfurt Airport

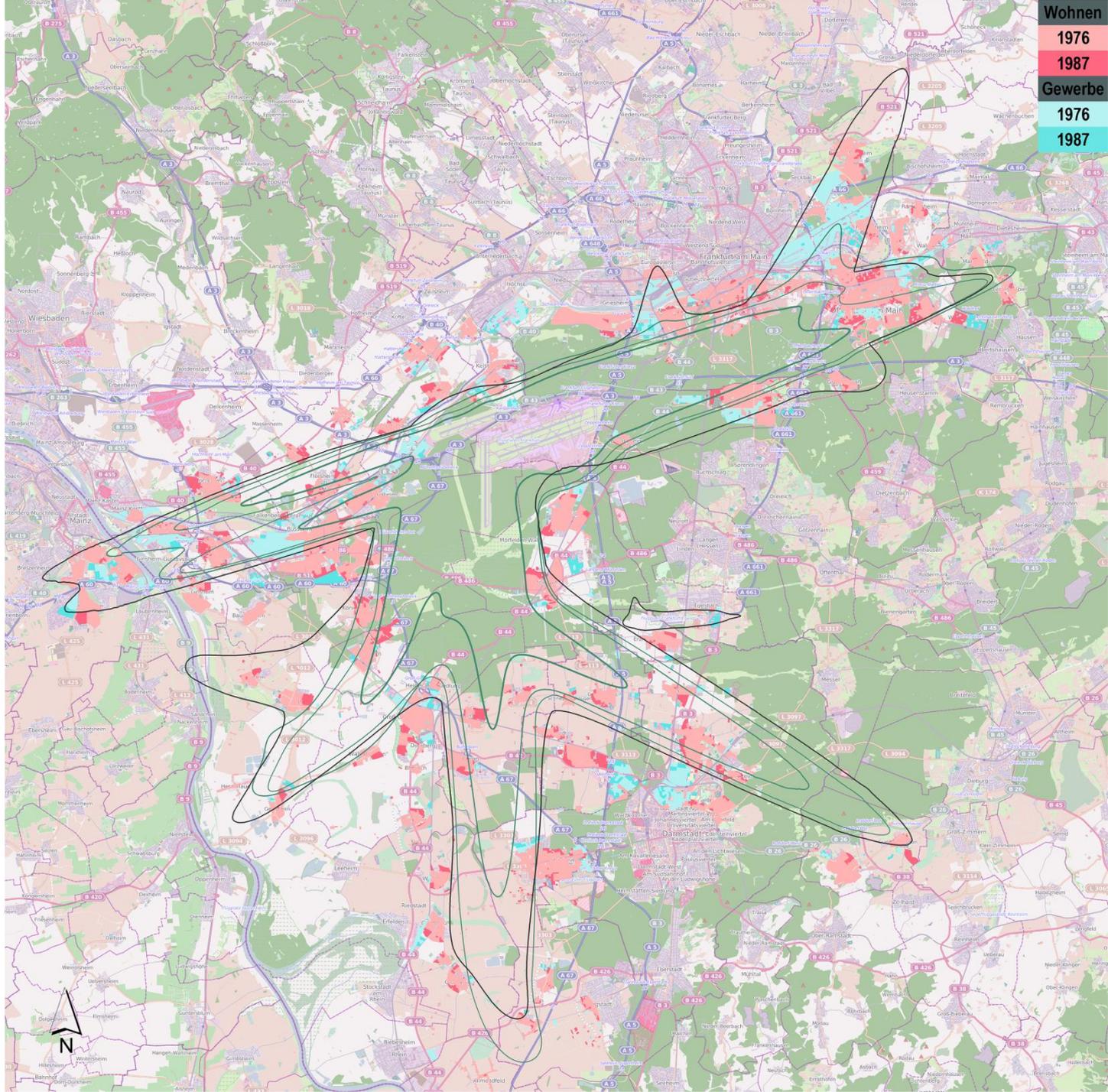
- Study: “Siedlungsflächenentwicklung im Flughafenumfeld” (“Development of residential areas in the vicinity of airports”), University of Bonn (Prof. Wiegandt et. al.) / RWTH Aachen (Prof. Selle et al.) on behalf of BDL (German Aviation Association)
- 6 airport regions: CGN, DUS, FRA, HAJ, HAM, MUC



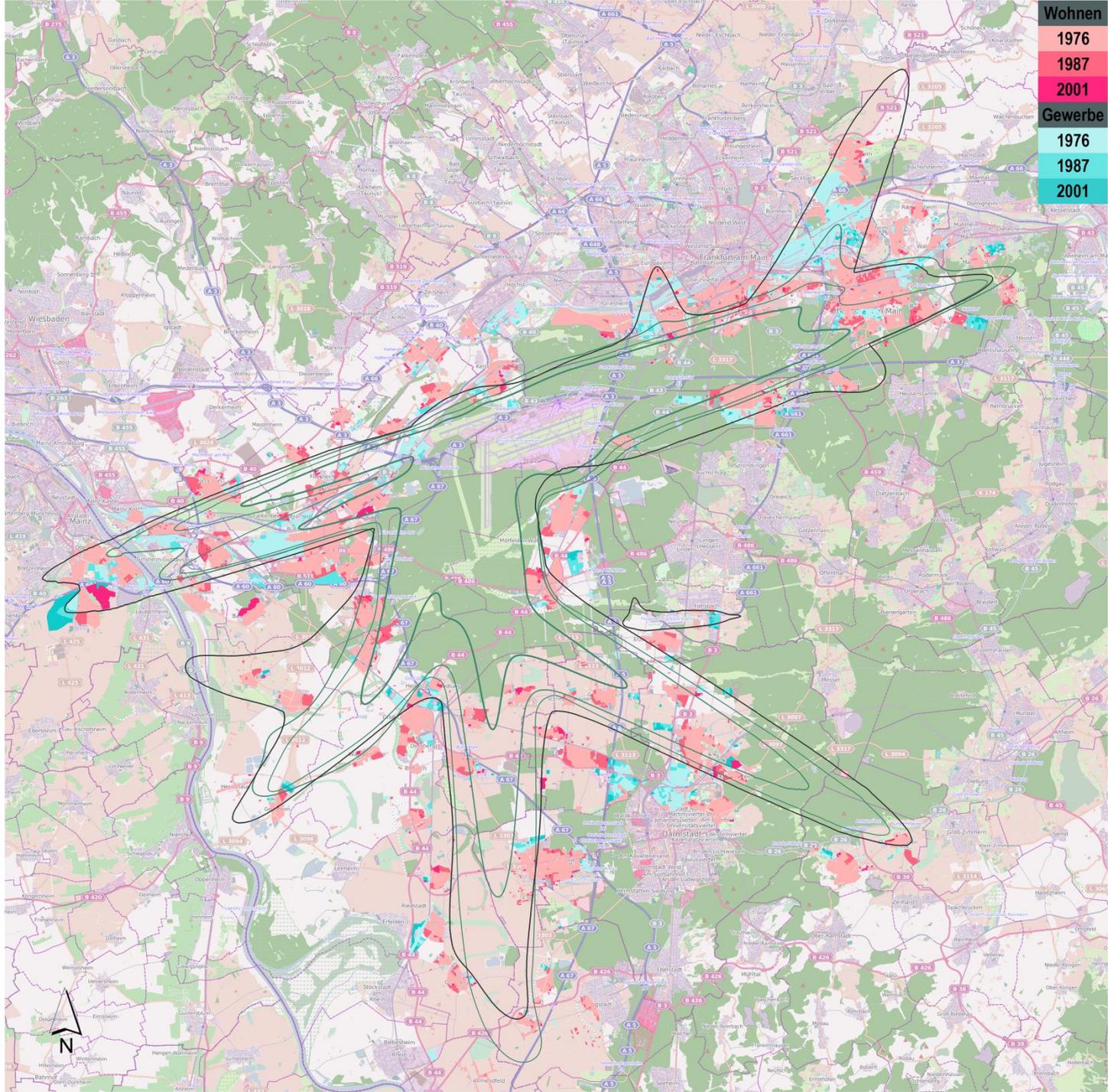
Development of Residential and Industrial Areas at Frankfurt Airport



Flughafen Frankfurt/Main 1976

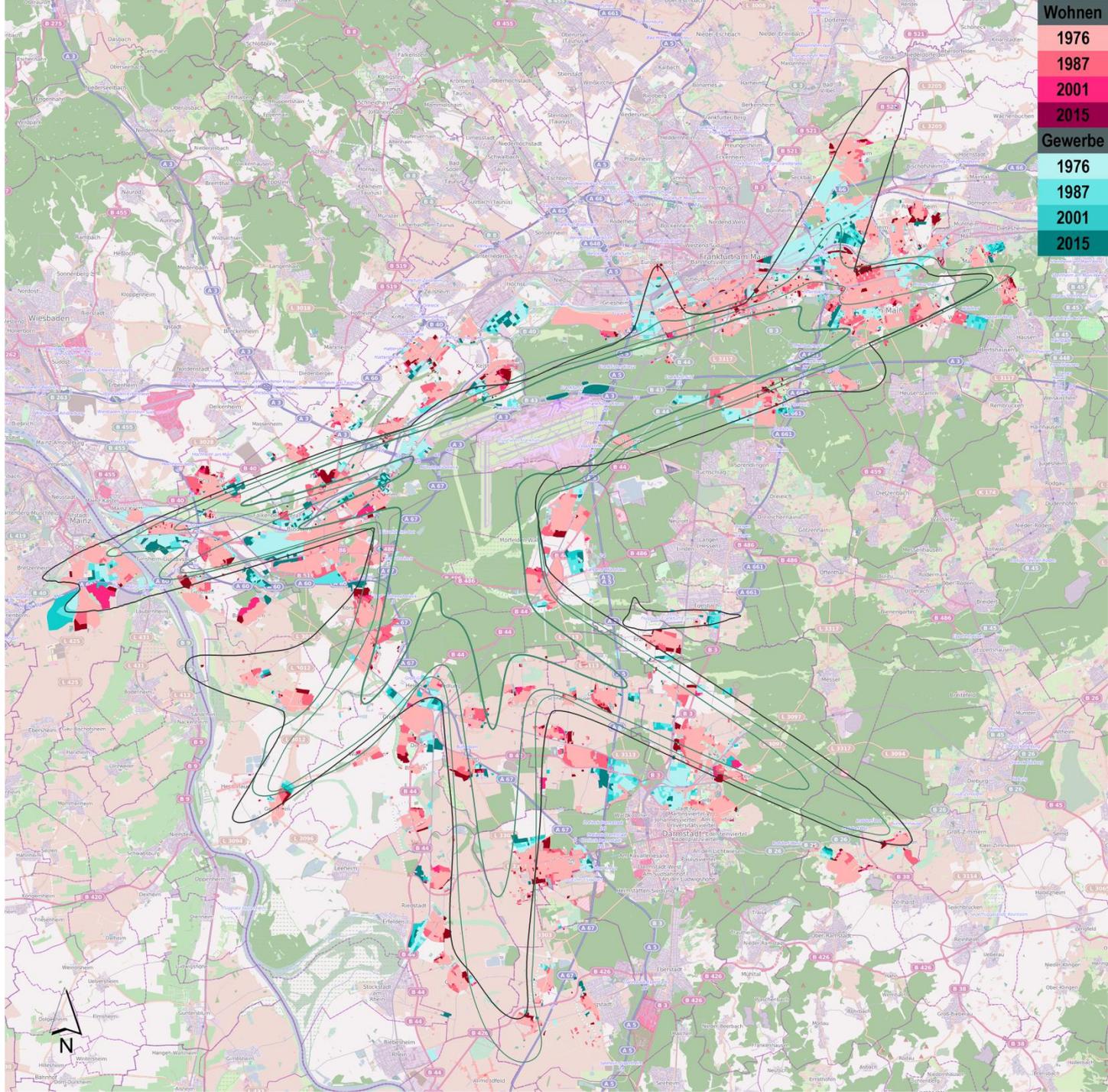


Flughafen Frankfurt/Main 1987



Wohnen
1976
1987
2001
Gewerbe
1976
1987
2001

Flughafen Frankfurt/Main 2001



Flughafen Frankfurt/Main 2015



Development of Residential and Industrial Areas at Frankfurt Airport

Findings of the study

- Building developments are getting closer and closer to airports; above-average development of residential areas in the vicinity of Frankfurt Airport
- Closing of gaps between buildings; densification and consolidation of existing residential areas; some new residential areas
- Consequence: Increase in the number of people affected by aircraft noise; new conflicts can be expected
- Growth pressure in thriving regions – partly triggered by airports
- Planning tools have not been exhausted; instead, building permits with no land use plan (Section 34 of the German Federal Building Code)
- Higher-level regional and state planning frequently acts with caution (topical example: residential restriction zone in the new Hesse regional development plan scaled down significantly)

Development of Residential and Industrial Areas at Frankfurt Airport

Recommendations of the study:

- Manage residential development activity based on land use plans instead of on building permits on the basis of Section 34 of the German Federal Building Code in order to broach the issue of conflicts and balance interests in a better way
- Preventive conflict mitigation and mediation of interests in the regional and state planning through consistent designation of residential restriction zones
- Continue confidence-building measures (discussion groups, joint data collection)
- Strengthening of inter-municipal cooperation (e.g. joint land use planning / projects, partly in cooperation with airport; example Mönchhof Logistics Park)
- Objective: Noise abatement through residential development management

A young woman with blonde hair, wearing a brown leather jacket over a dark blue patterned top, is smiling and looking at her smartphone. She is sitting on a dark blue bench in an airport terminal.

Gute Reise!

An airport ground crew member wearing a high-visibility yellow-green jacket, a black cap, and a headset is pointing upwards with his right hand. He is standing in front of a blue background.

Wir sorgen dafür