



Bundesamt für
Kartographie und Geodäsie



Digital Twin Germany

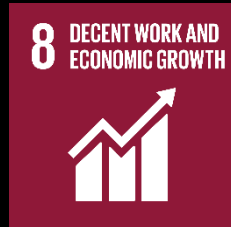
Session 6:

Digital transformation through geospatial – European perspective

Prof. Dr. Paul Becker

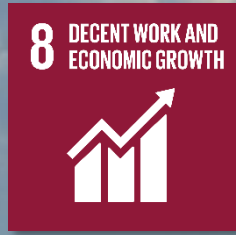
Federal Agency for Cartography and Geodesy Germany

Enhancing the Implementation of the 2030 Agenda / SDGs with Authoritative Geospatial Data





Forest Fire



Humanitarian Crises



Heavy Rainfall



Heat

What is the Digital Twin Germany?



Expert Knowledge

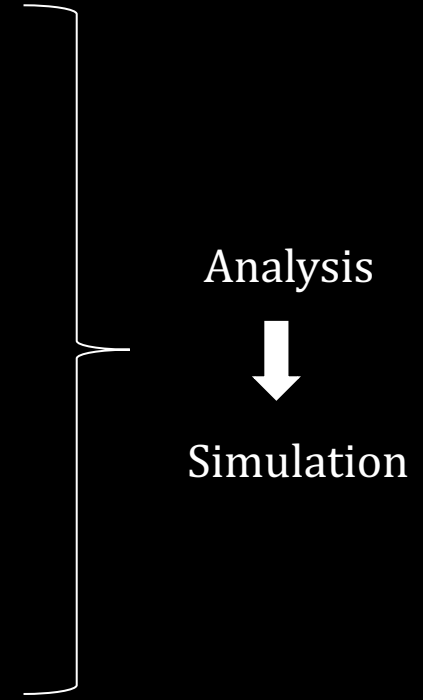
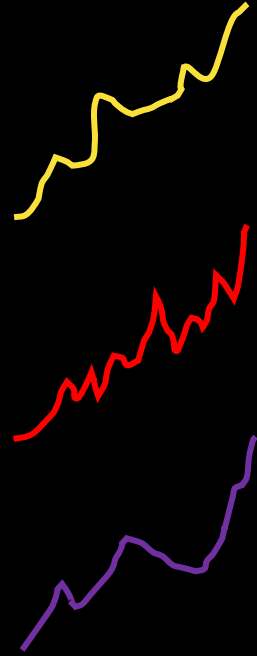
How does all fit together?

Points of Interest

What do we have?

3D Model

How the data is captured?



LiDAR

Light Detection And Ranging

1

Light emitted by the scanner in the direction of flight in pulses

4

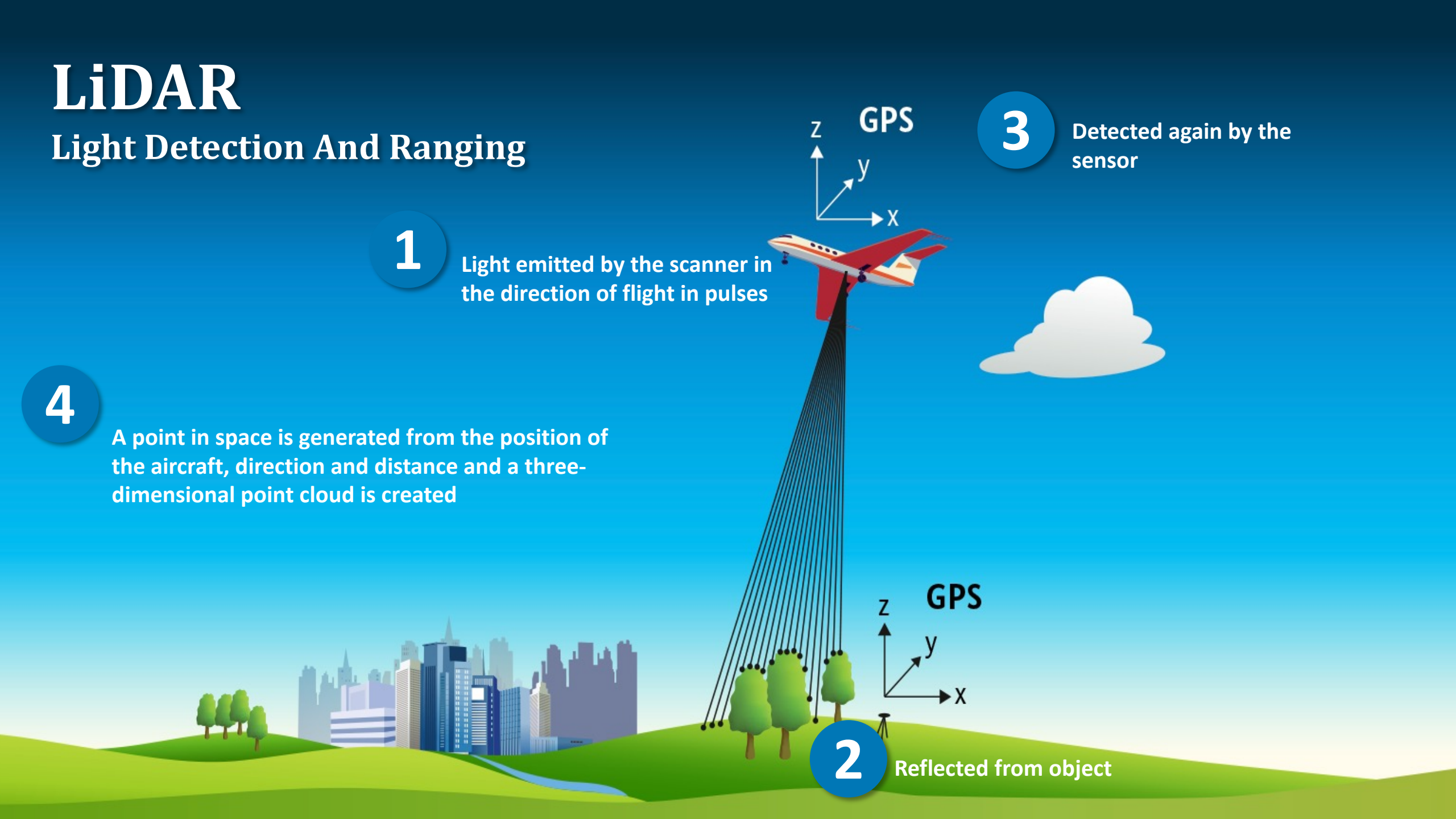
A point in space is generated from the position of the aircraft, direction and distance and a three-dimensional point cloud is created

3

Detected again by the sensor

2

Reflected from object





How data is captured

Demonstration phase Hamburg - Example of resulting point cloud





Flood in Germany's Ahr Valley 2021



Consulter le journal

Se connecter

FLUTKATASTROPHE

ACTUALITÉS ÉCONOMIE VIDÉOS



Abo

Anmelden

Startseite > Kultur & Medien > Berichterstattung in aller Welt: Ein Foto aus Erfstadt erlangt traurige Berühmtheit

Berichterstattung in aller Welt

Ein Foto aus Erfstadt erlangt traurige Berühmtheit

16.07.2021, 15:07 Uhr



Ein Foto zeigt, wie dramatisch die Lage in Erfstadt-Blessem war.

Copyright: dpa

Datum 18.07.2021

Autorin/Autor Jennifer Wagner

Themenseiten Hochwasser und Überschwemmungen, Unwetter

Schlagwörter Flut, Unwetter, Flutkatastrophe, Altenahr

Schicken Sie uns Ihr Feedback!

Drucken Seite drucken

Permalink <https://p.dw.com/p/3wbfQ>

INTERNACIONAL



Las inundaciones en Alemania, en imágenes

Germany mounts h floods leave dozens missing

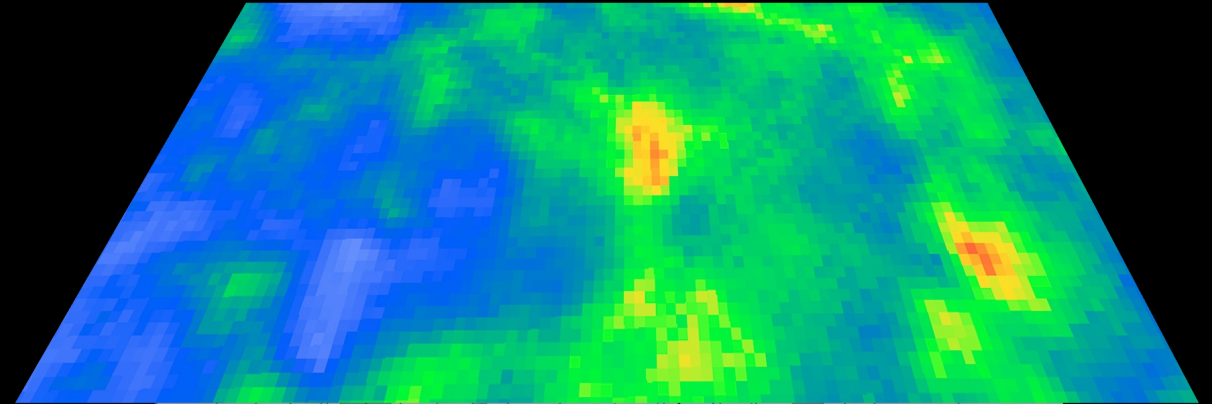
By Nadine Schmidt, Schams Elwazer, Barbara Wojazer and S Updated 3:36 AM EDT, Fri July 16, 2021



Digital Twin Germany in Use

Prevention of heavy rainfall

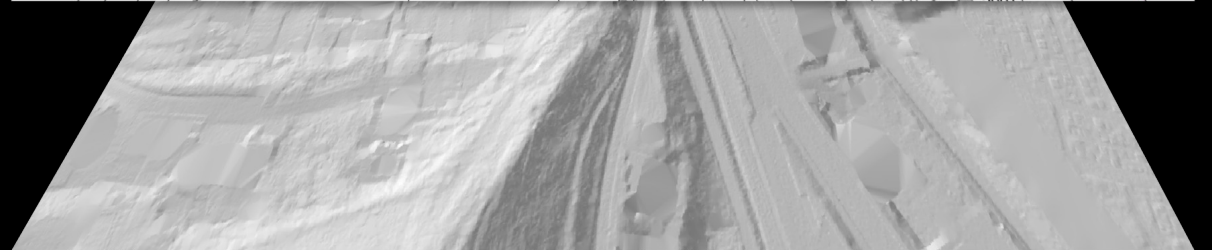
Probability of heavy rainfall



Data about buildings



Digital elevation model



Prediction of water level



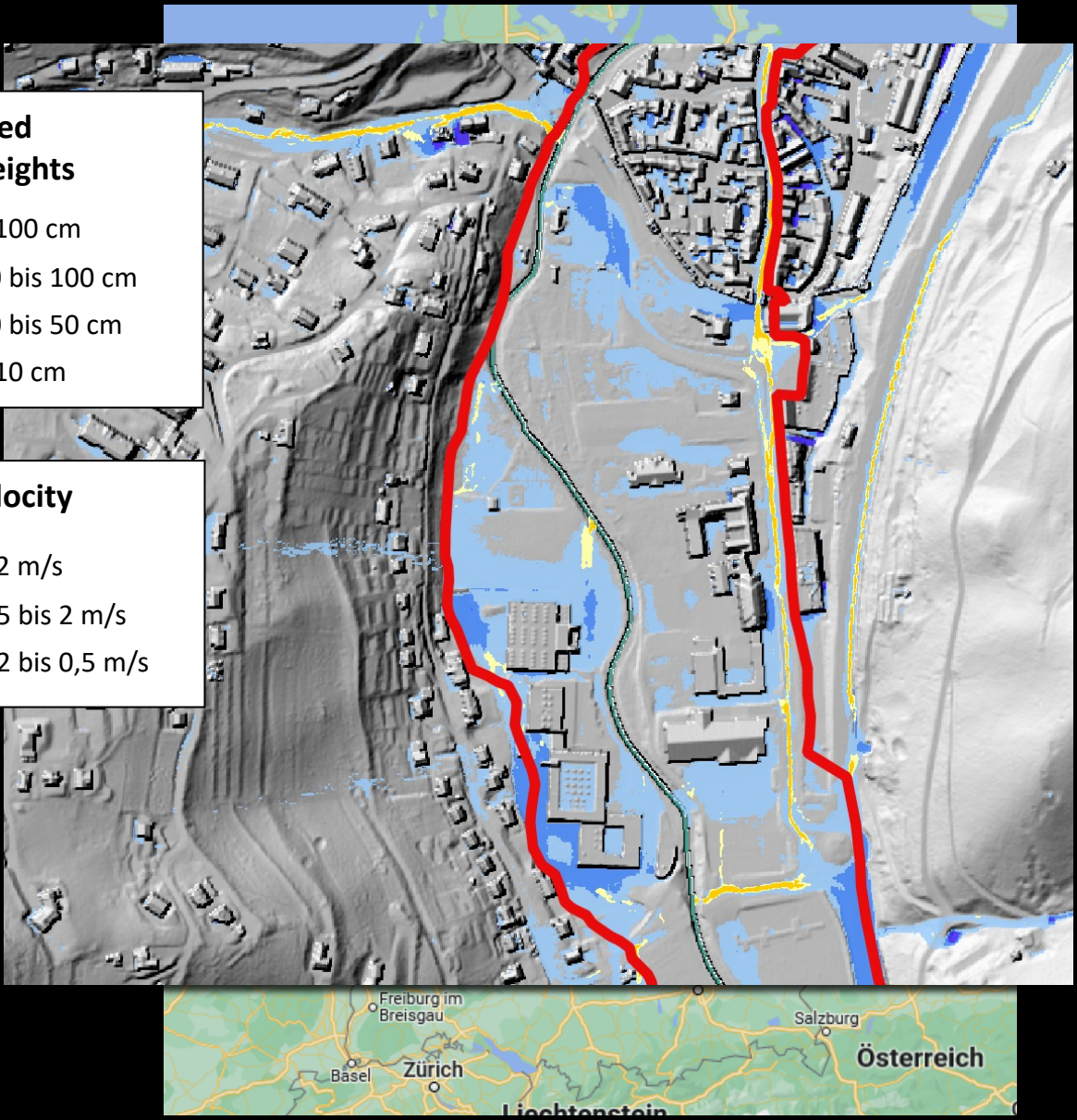
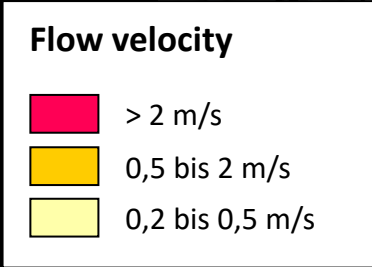
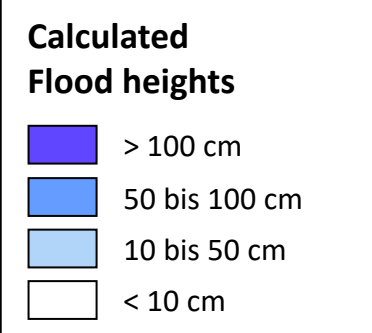
Flow velocity



Digital Twin Germany in Use

Prevention of heavy rainfall

What happend July 2021?



What comes next?



Experienceable 3D World ExerCube

Preparation

Knowledge Transfer

...

Thank you for your attention!

Climate Change

Equal living conditions

Digital Twin Germany

Security



... and 2030 Agenda

Federal Agency for Cartography and Geodesy
Richard-Strauss-Allee 11
60598 Frankfurt am Main, Germany



Prof. Dr. Paul Becker
VorzimmerPraesident@bkg.bund.de
www.bkg.bund.de
Tel. +49 69 6333 – 226

