UBIMET
HIGH RESOLUTION
WEATHER DATA AND SERVICES
Weather matters

WEATHER INFLUENCES ALL ASPECTS OF EVERYDAY LIFE

- **Weather Patterns**
  - Droughts, sand/dust storms
  - Heavy rainfalls, flash flooding

- **Caused by**
  - Monsoon
  - Harmattan
  - Tropical Cyclones
  - Intertropical Convergence (ITCZ)

- **Affected by**
  - El Niño / La Niña
  - Indian Ocean Dipole (IOD)
Who we are

WE STAND FOR THE HIGHEST PRECISION

- Established 2004, with focus on high-precision technology
- Led by the founders, global strategic partnership with Red Bull
- ISO 9001 certified weather service provider with headquarters in Vienna and branch offices around the globe (e.g. New York, Melbourne)
- Innovation leader in offering severe weather warnings
Base Layer 1: Observation Network

GLOBAL NETWORK OF HIGH PRECISION WEATHER INFRASTRUCTURE

- **Own Lightning Detection System**
  - Patented 3D position heading
  - Currently completing Nepal roll-out

- **Satellite Network**
  - Access to all major available satellite services
  - Analysis of different channels to derive parameters

- **Weather Stations**
  - Dense network of meteorological sensors
  - Precise wind, precipitation and temperature forecasts

- **Weather Radar Systems**
  - High resolution and street-level rainfall detail views
  - Rapid data updates and precise early warnings
Base Layer 1: Observation Network

DERIVING ADDITIONAL PARAMETERS FROM OBSERVATION DATA
Base Layer 2: Own Weather Model

4D VAR DATA ASSIMILATION

- Lightning data
- Radar data
- Satellite data
- Station data

HIRES Global
12 x 12 km

UBIMET Global
4 x 4 km

UBIMET 4D VAR
90 m x 90 m
UBIMET
SEVERE WEATHER WARNING

UBIMET warning Level III:
Severe thunderstorms with risk of extremely heavy rain and flooding, 7.6. 16:32-7.6 18:06; postcode 4020

UBIMET warning Level II:
80-100 km/h, locally up to 110 km/h; 31.1. 16:00 – 1.2. 14:15; postcode 4020
Base Layer 3: Severe Weather Warning

ALERT-SYSTEM

- **Input data**
  - Observations
  - Weather Models

- **Alert Generation**
  - Type of alert
  - Geographic region
  - Timing information

- **Message Transport**
  - Identify customers
  - Media selection
  - Text generation
Base Layer 3: Severe Weather Warning

The choice of the alerting tool should correlate with the age of the recipients.

The alert message should correlate with the area of residence.

The choice of the alert sender should correlate with the respective „national trust context. “
WEATHER DATA VIA INTERFACE

UBIMET

WEATHER MATTERS
UBIMET Connect: DEMO

OUR POINT OF DIFFERENCE

PRECISE PINPOINT FORECASTS.
IN REAL-TIME. ON DEMAND.
Live Weather
- Rain radar & lightning detection
- Animated Forecasts

Individualized Alerts
- By SMS
- When limits are exceeded

CSV Export
- Export forecast values as csv file
- Save settings for future exports

UBIMET Rain Alert:
15-16h, ZIP 4020;
Within the next hour heavy rainfall can be expected.
MobComWeather

INNOVATIVE NEW DATASOURCES FOR METEOROLOGY

Utilizing signal quality data of cellular radio networks for precise precipitation nowcasts.

- **Input data**
  - Signal quality of radio links
  - Transmission loss
  - Packet loss between base stations and mobile radios

- **Methods used**
  - Intelligent pattern analysis
  - Classification algorithms

- **Outputs used as**
  - Input to weather nowcasting models
  - Improving its regional and temporal precision
  - Regions with limited or without any rain radar

More information at: rnd@ubimet.com
Weather should be no coincidence

**BETTER INFORMATION = BETTER DECISIONS**

### EXPERTISE
- Professional experience in various sectors
- Exceptional data quality in real time
- **International team of meteorologists, physicists, mathematicians, biologists, geoscientists, IT experts**
- One-stop-shop for our customers

### GLOBAL & LOCAL
- Tailored and locally adapted customer solutions
- Stable shareholder structure: two private trusts and Red Bull
- Worldwide access to weather station data

### INNOVATION
- Market leader in severe weather warnings
- **Development of cutting-edge technologies**
- On-going development of future-focussed services
- Customer solutions for increased efficiency and cost reduction

### QUALITY MANAGEMENT
- In house R&D department
- Continual enhancement of weather models, products and forecasting techniques
- Extensive cooperation with the Fraunhofer Institute
- ISO 9001 certification

---

**UBIMET**

**WEATHER MATTERS**