



Worum geht es?

Die Anforderungen an Warnprodukte können sich sehr stark unterscheiden, aufgrund ...



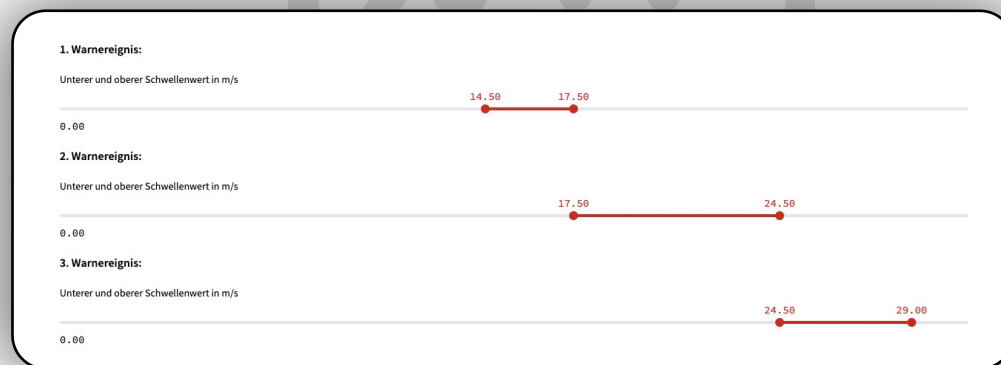
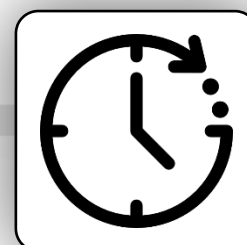
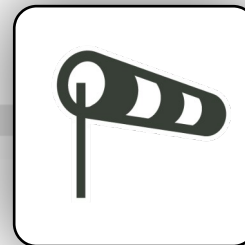
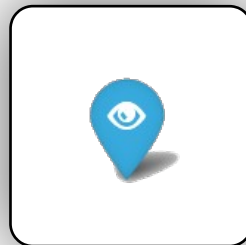
... des Ortes, des Warnelements, der Warnschwellen, usw.



„Warnbaukasten“

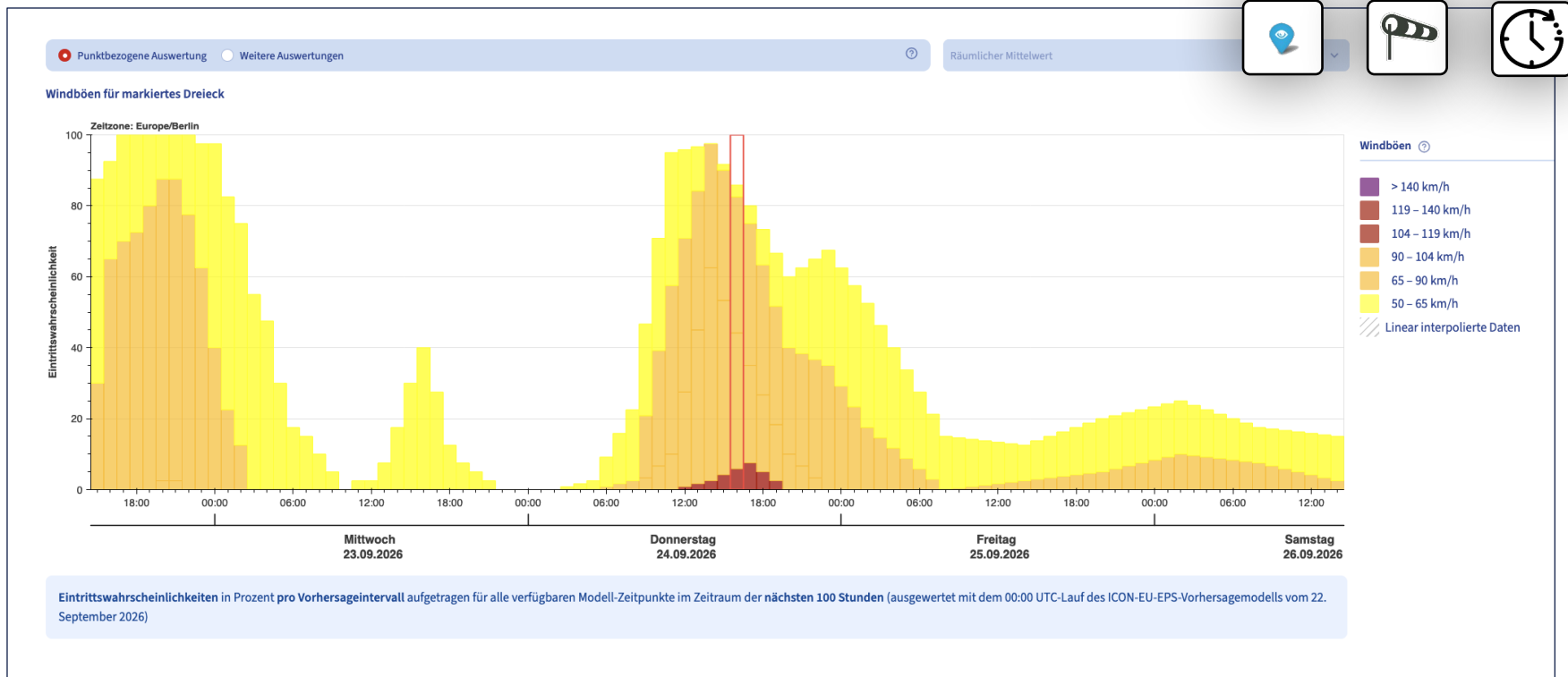
- Ort
- Warnelement
- Zeit
- Warnschwellen
- ...

→ individuelle, probabilistische
Warninformationen



Icon von Prosymbols Premium

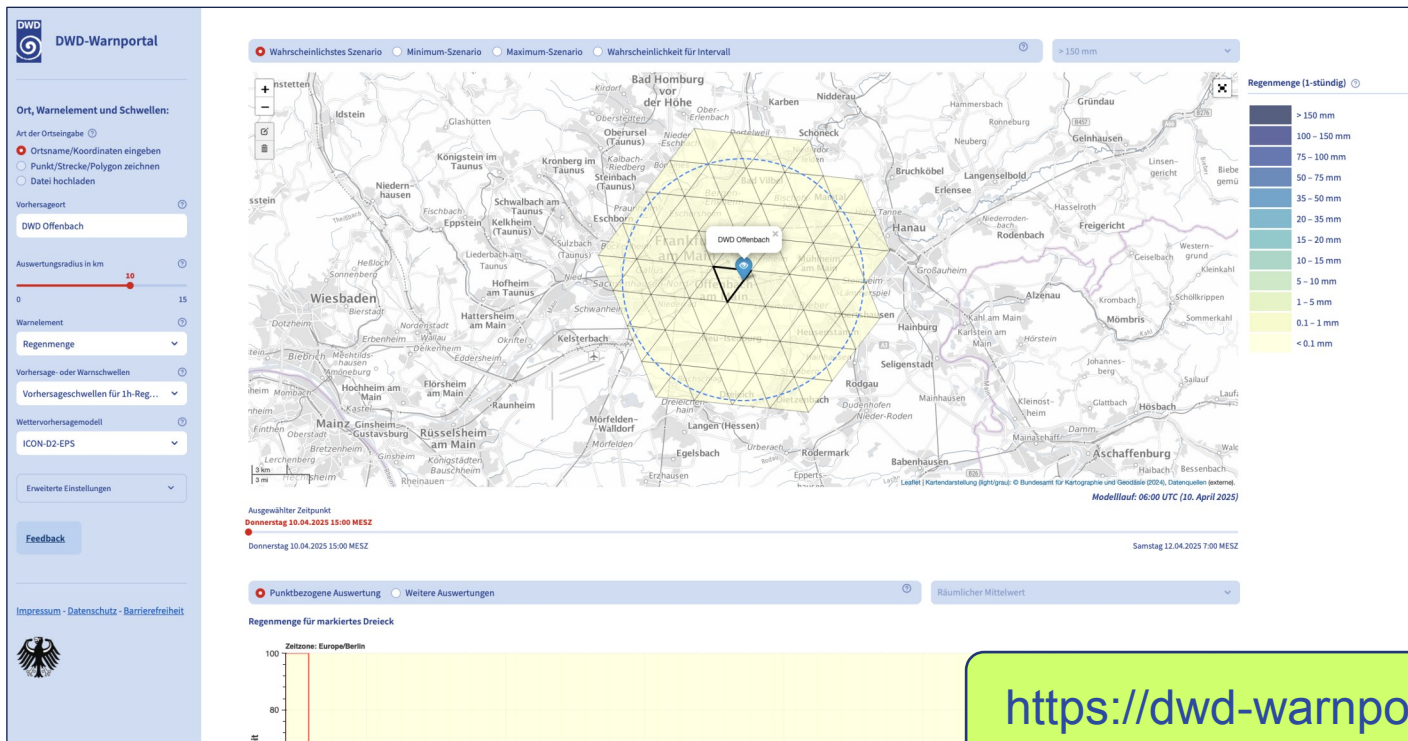
Warum Wahrscheinlichkeiten?



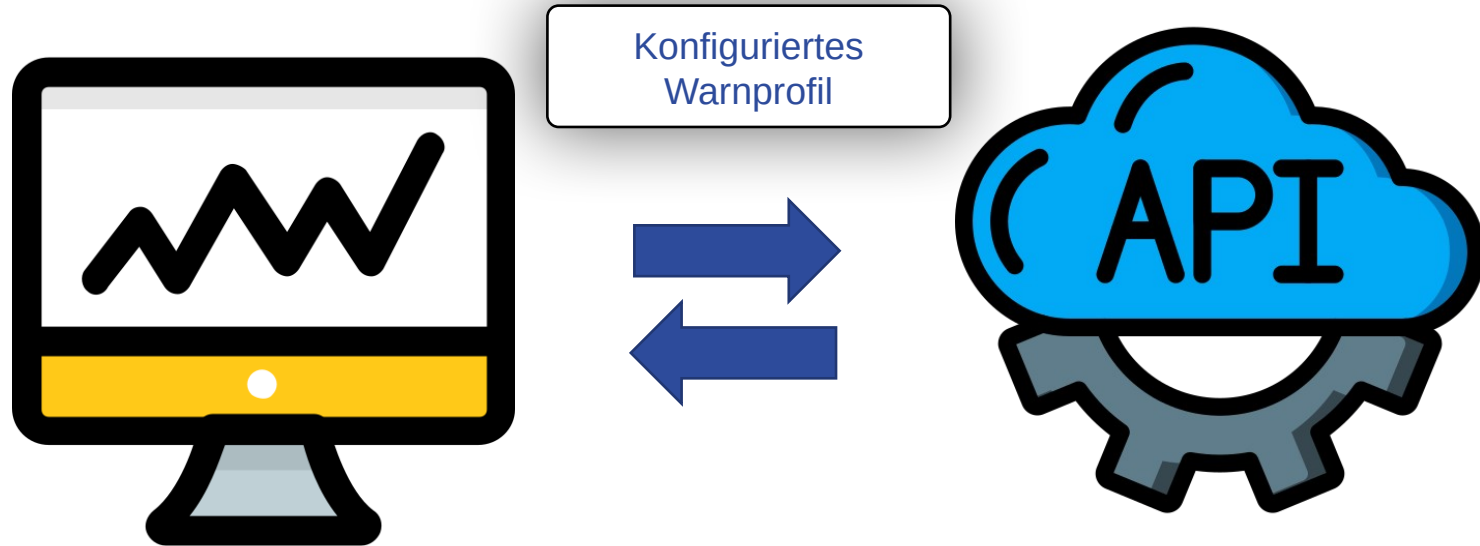
Wer sind die Zielgruppe?

- Verkehrssektor
- Katastrophenschutz
- Forstwirtschaft
- Erneuerbare-Energien-Sektor
- Medien
- Forschung
- ...



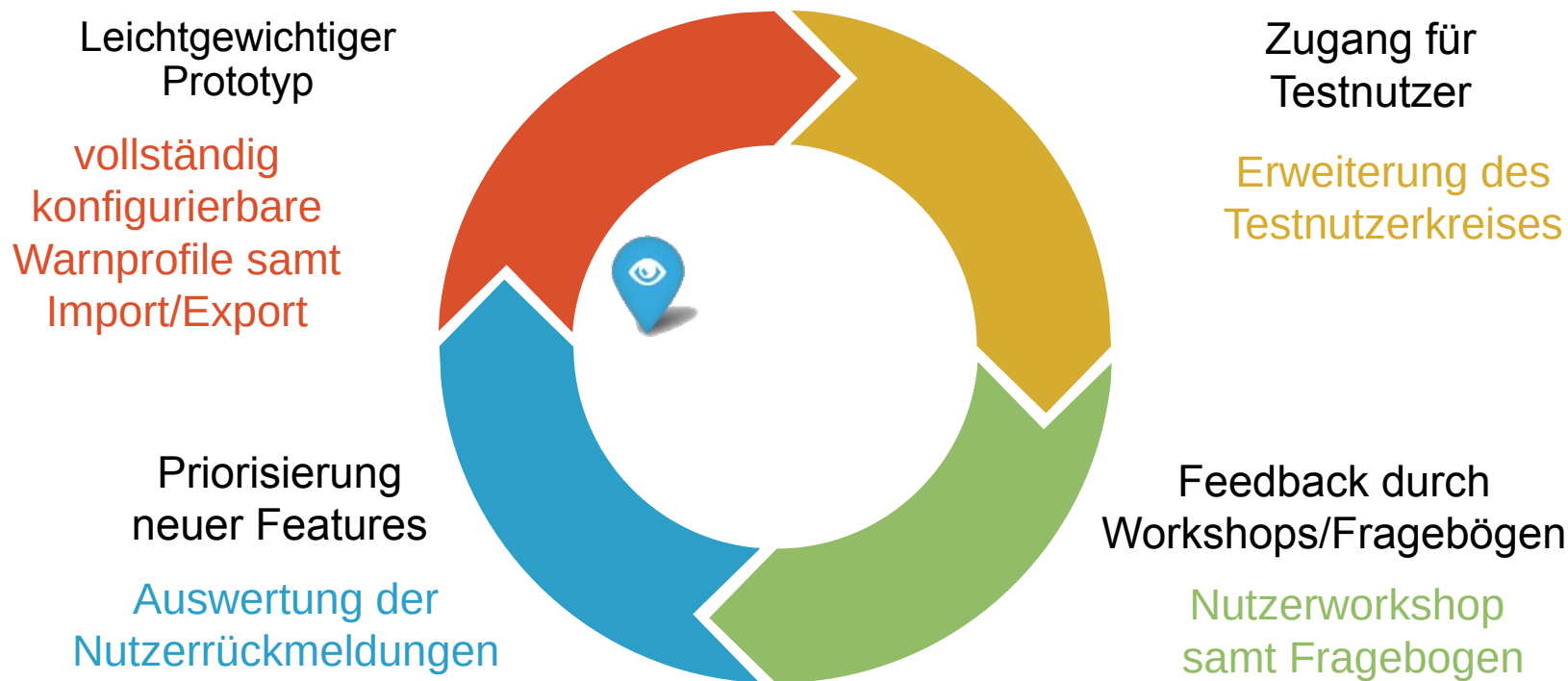


Was passiert im Hintergrund?



Icons von [Prosymbols Premium](#) und [Smashicons](#)

Wie es weitergeht ...



Danke für Ihre Aufmerksamkeit!

Fragen?

Vielen Dank ans restliche Warnportal-Team:

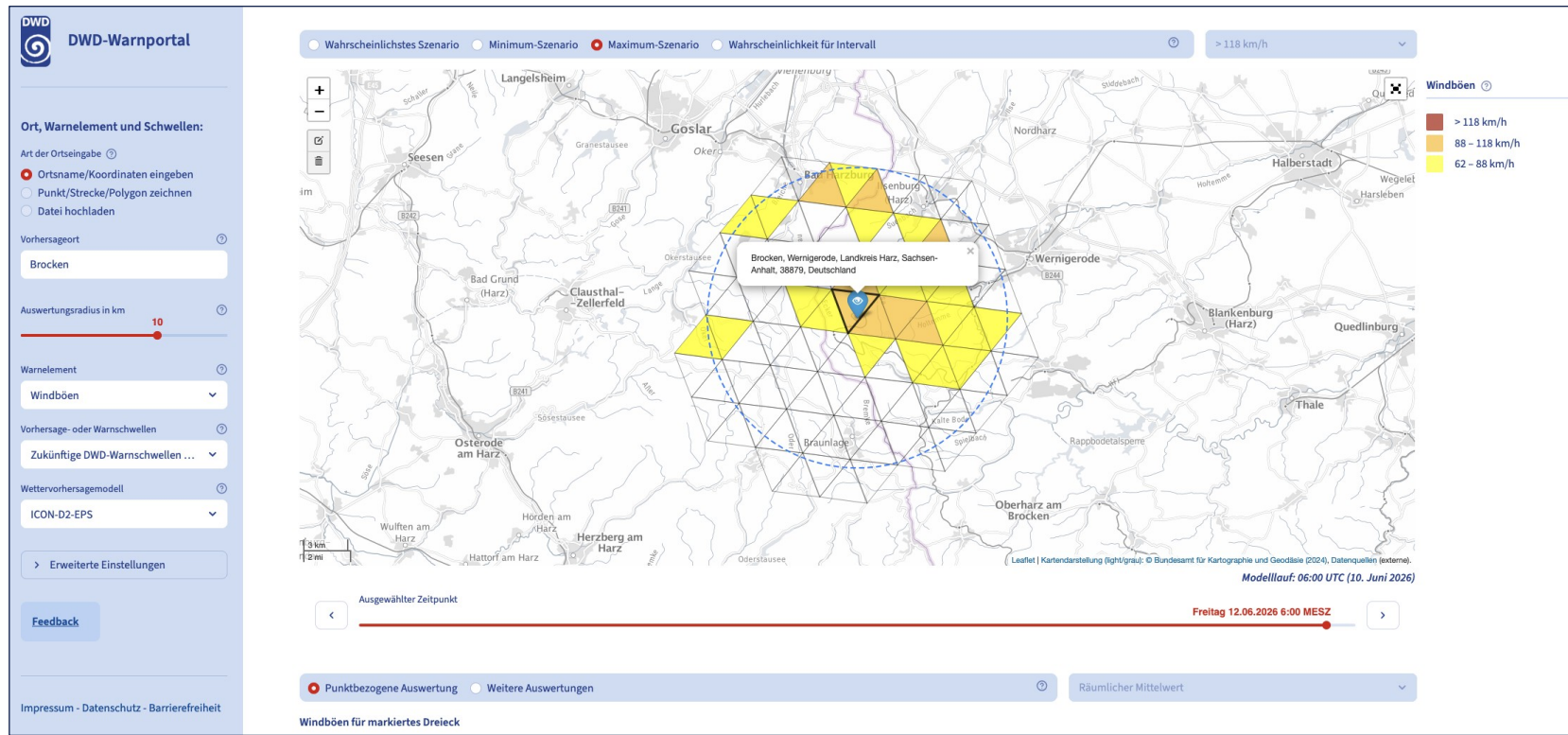
Kathrin Feige

Linda Noël

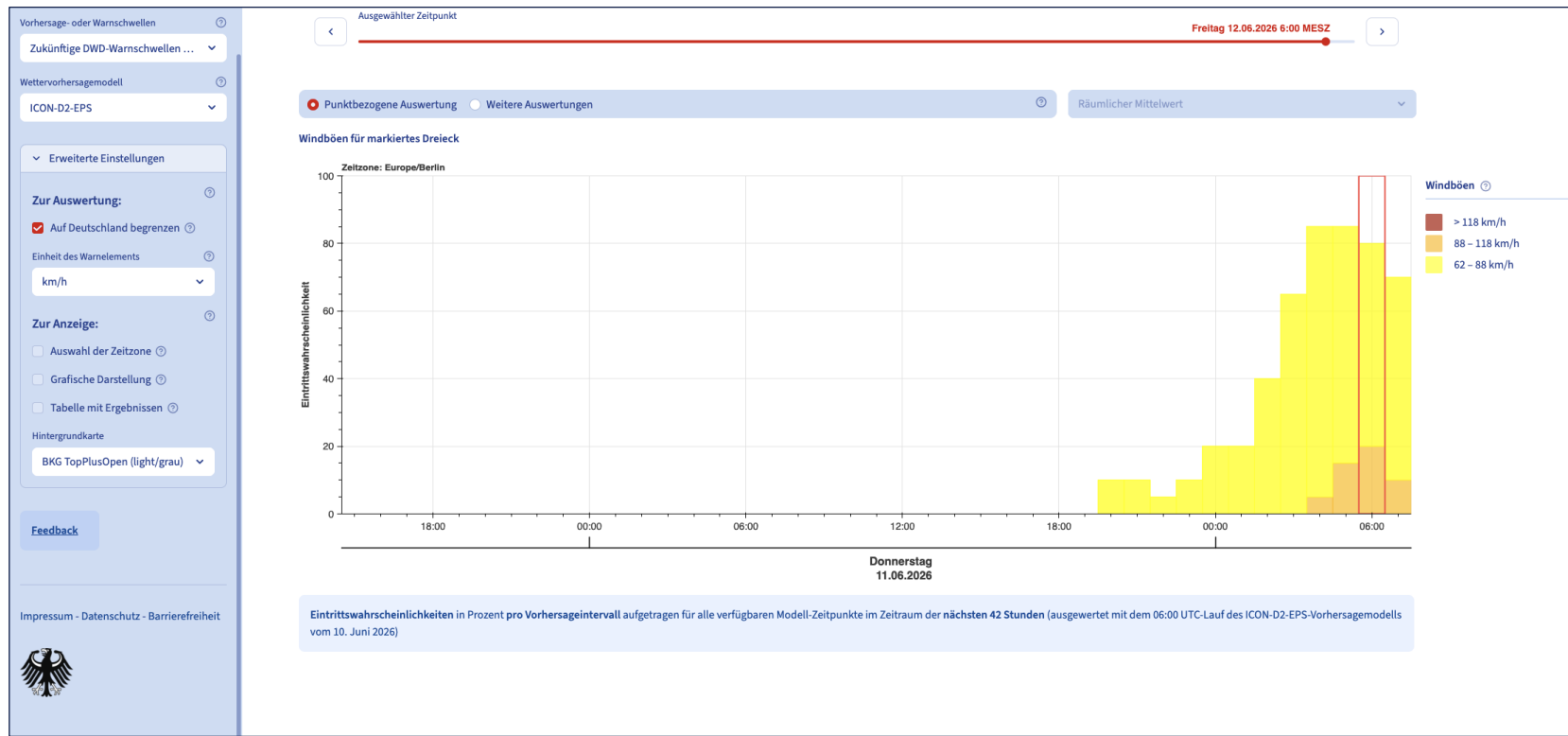
Reik Schaab

<https://dwd-warnportal.de/>
warnportal@dwd.de

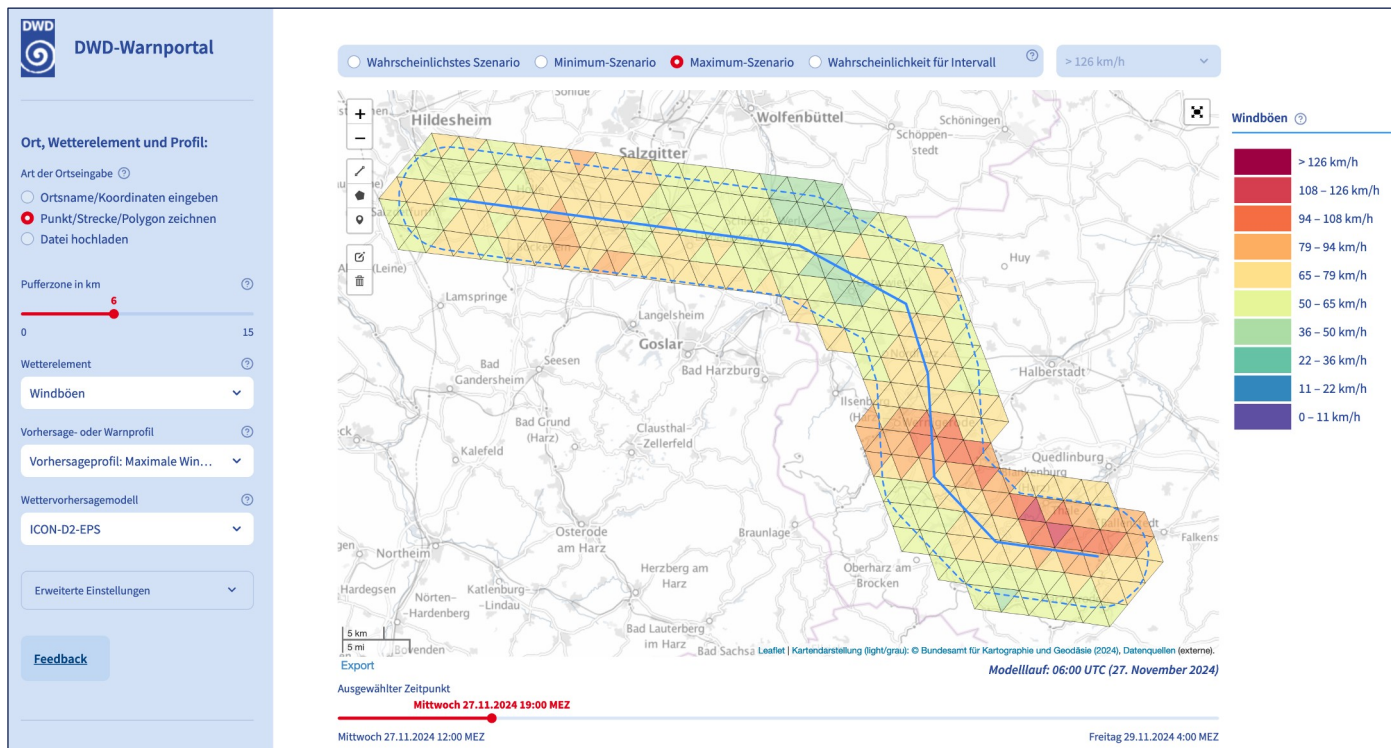
Fallback Folie 1



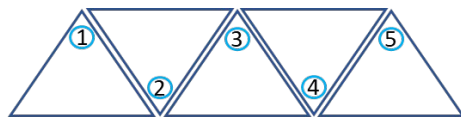
Fallback Folie 2



Fallback Folie 3



Räumliches Maximum und Perzentil



6 Member
5 Gitterzellen

Warnevents mit Schwellen:

- $0 \leq x < 3 \text{ mm}$: 1
- $3 \leq x < 4 \text{ mm}$: 2
- $4 \leq x < 5 \text{ mm}$: 3
- $5 \leq x < 7 \text{ mm}$: 4

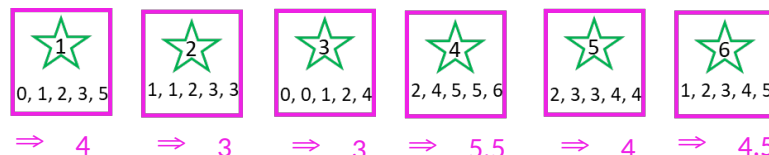
Member/ Zellen						
1	0	1	0	5	4	2
2	5	3	1	4	3	5
3	2	3	0	5	4	3
4	3	2	4	2	3	4
5	1	1	2	6	2	1

Räumliches Maximum



1
 $1x$ 2 $\Rightarrow 16.6 \%$
 $2x$ 3 $\Rightarrow 33.4 \%$
 $3x$ 4 $\Rightarrow 50 \%$

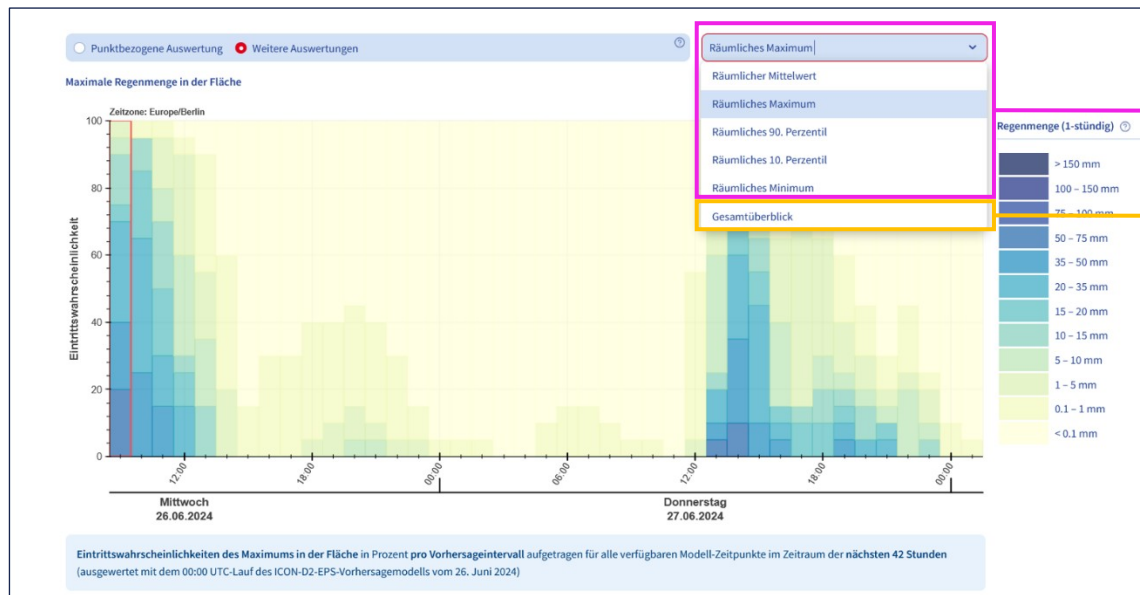
Räumliches 90. Perzentil



1
 $2x$ 2 $\Rightarrow 33.4 \%$
 $3x$ 3 $\Rightarrow 50 \%$
 $1x$ 4 $\Rightarrow 16.6 \%$

Analyse für jeden Zeitschritt

Räumlicher Gesamtüberblick



Räumliche Auswertungen

Gesamtüberblick

Member/ Zellen	1	2
1	0	1
2	5	3
3	4	3

2 Member
3 Gitterzellen



2x 1 ⇒ 33.4 %
2x 2 ⇒ 33.4 %
1x 3 ⇒ 16.6 %
1x 4 ⇒ 16.6 %

Details zur Web-API

Kassandra-Web-API v3 OAS 3.1

[V3/openapi.json](#)

Web-API for analysis of individual warning profiles.

Servers:

[Authorize](#)

Warn threshold probabilities

- [POST /pointwise/](#) Spatial calculation method pointwise
- [POST /spatial/](#) Spatial calculation methods
- [GET /{warn_element}/](#) Single point request

Meteorological ensemble member data

- [POST /pointwise/ensemble-data/](#) Meteorological ensemble member data with spatial calculation method pointwise
- [POST /spatial/ensemble-data/](#) Meteorological ensemble member data with spatial calculation methods

Schemas

- [AuthenticationErrorModel](#) Expand all object
- [CalculatedProbabilitiesAverage](#) Expand all object
- [CalculatedProbabilitiesPointwise](#) Expand all object

Request body required

Examples:

TEMP request with default parameters

Example Value | Schema

```
{  "warn_element": "TEMP",  "time_period_start": "T180",  "time_period_end": "T1240",  "model": "ICON-B2-EP5",  "level": "2m",  "interpolation_method": "linear",  "time_filter": "no_filter",  "buffer_distance_km": 0,  "geojson": {    "type": "FeatureCollection",    "features": [      {        "type": "Feature",        "properties": {},        "geometry": {          "type": "Point",          "coordinates": [            8.7476,            50.1828          ]        }      }    ]  }  }
```

Responses

Code	Description
200	Successful Response
400	Bad Request
401	Unauthorized

Media type:

Controls accept header.

Example Value | Schema

```
{  "time_filter": "no_filter",  "buffer_distance_km": 0,  "integration_time": "T13H",  "wind_direction": "W",  "model_run": "2022-11-22T00:00+00:00",  "warn_element_unit": "C",  "warn_thresholds": [    {      "less_than": 0    },    {      "greater_than_or_equal_to": 0,      "less_than": 0    },    {      "greater_than_or_equal_to": 0    }  ],  "geojson": {    "type": "FeatureCollection",    "features": [      {        "geometry": {          "type": "Point",          "coordinates": [            8.7476,            50.1828          ]        }      }    ]  }  }
```

Request body required

Examples:

TEMP request with default parameters

Example Value | Schema

```
WarnProfileIn {  warn_element: string  time_period_start: string  time_period_end: string  model: string  level: string  integration_time: string  wind_direction: string  interpolation_method: string  time_filter: string  buffer_distance_km: integer  geojson: object  warn_thresholds: array-object }
```