# Package 'inkaR'

March 13, 2026

**Title** Download and Analyze Spatial Development Data from INKAR

**Version** 0.4.3

**Description** A lightweight package to download spatial development indicators
from the BBSR INKAR (Indikatoren und Karten zur Raum- und Stadtentwicklung) database.
It provides a modern interface using 'httr2', robust caching, concurrent API querying
for fast spatial dimension lookups, and native geospatial mapping integration.

**URL** https://github.com/ofurkancoban/inkaR

**BugReports** https://github.com/ofurkancoban/inkaR/issues

**License** MIT + file LICENSE

**Encoding** UTF-8

**LazyData** true

**RoxygenNote** 7.3.3

**Imports** httr2, jsonlite, tibble, dplyr, rlang, tidyr, utils

**Suggests** readxl, testthat (>= 3.0.0), knitr, rmarkdown, sf, geodata,
ggplot2, httptest2

**VignetteBuilder** knitr

**Depends** R (>= 4.1.0)

**Config/testthat/edition** 3

**NeedsCompilation** no

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**Repository** CRAN

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clear_inkar_cache *Clear INKAR Cache*

---

### Description

Clears the persistent disk cache used for API responses (like time reference metadata).

### Usage

```
clear_inkar_cache()
```

### Value

No return value, called for side effects.

---

get_geographies *Get Available Geographies or Region List*

---

### Description

Retrieves a list of available spatial levels (if geography is NULL) or a list of regions for a specific level (e.g., "KRE").

### Usage

```
get_geographies(geography = NULL)
```

### Arguments

geography     Character. Spatial level code (e.g. "KRE"). If NULL, returns all levels.

### Value

A data frame with ID and Name.

---

get_indicators *List Available Indicators*

---

### Description

Returns a data frame of available indicators with bilingual support.

### Usage

```
get_indicators(lang = c("de", "en"))
```

### Arguments

lang                    Language code: "de" (German) or "en" (English).

### Value

A tibble containing indicator IDs, names, and descriptions.

---

get_inkar_data *Download Data from INKAR*

---

### Description

Retrieves statistical data for a given variable and spatial level. Automatically handles time reference lookup.

### Usage

```
get_inkar_data(
  variable,
  level = "KRE",
  year = NULL,
  lang = c("de", "en"),
  format = c("long", "wide"),
  csv = FALSE,
  export_dir = NULL
)
```

## Arguments

| | |
|---|---|
| `variable` | Character. The indicator ID (Shortname), e.g., "011". |
| `level` | Character. Spatial level code (e.g., "KRE" for Kreise). |
| `year` | Integer/Character vector. Specific year (e.g., 2021) or range (e.g., 2010:2020). If NULL, fetches all available years. |
| `lang` | Character. "de" (default) for German column names, "en" for English. |
| `format` | Character. "long" (default) for tidy format, "wide" for years as columns. |
| `csv` | Logical. If TRUE, saves the data to a CSV file in the directory specified by `export_dir`. |
| `export_dir` | Character. Directory to save the CSV file if `csv = TRUE`. If NULL (default), it saves to the current working directory (`"."`). |

## Value

A tibble containing the data.

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| indicators | *INKAR Indicators Metadata* |
|---|---|

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## Description

A comprehensive list of available indicators from the INKAR database. This dataset is used to lookup indicator IDs, names, and descriptions.

## Usage

```
indicators
```

## Format

A data frame with the following columns:

**ID** Short identifier (e.g., "001")

**M_ID** Numeric internal ID used by API

**Name_DE** German name of the indicator

**Name_EN** English name (translated or placeholder)

**Description_DE** Detailed German description

**Theme** Group/Domain of the indicator

**Active** Logical. TRUE if verified as active in the API

**Algorithmus** Algorithm used (if any)

**Anmerkungen** Notes in German

**Anmerkungen_EN** Notes in English

**Gemeinden** Availability for Municipalities

**Kreise** Availability for Districts

**Statistische Grundlagen** Statistical basis (DE)

**Stat_Grund_EN** Statistical basis (EN)

**Unit_DE** Unit of measurement (DE)

**Unit_EN** Unit of measurement (EN)

### Source

<https://www.inkar.de/>

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inkaR                              *Download Data from INKAR (Alias)*

---

### Description

A convenient alias for [get_inkar_data()](). Call inkaR("011") to download directly, or call inkaR() with no arguments in an interactive session to open a searchable menu.

### Usage

```
inkaR(variable = NULL, level = NULL, ...)
```

### Arguments

| | |
|---|---|
| variable | Character. Indicator ID, shortname, or partial name. If NULL (default), opens an interactive selection menu (interactive sessions only). |
| level | Character. Spatial level code (e.g., "KRE" for Kreise). If NULL and variable is also NULL, an interactive level menu is shown. |
| ... | Additional arguments passed to [get_inkar_data()](), such as year, lang, format, or csv. |

### Value

A tibble containing the downloaded data, or NULL if selection was cancelled.

### Examples

```
if (interactive()) {
  df <- inkaR()  # opens interactive menu
}


  df <- inkaR("bip", level = "KRE", year = 2021)
  df <- inkaR("Bruttoinlandsprodukt", level = "KRE")
```

---

plot_inkar                    *Plot INKAR Data on German Maps*

---

**Description**

Automatically projects regional INKAR data onto administrative boundaries of Germany using the geodata and sf packages. Supports Kreise (KRE) and Bundesländer (BLD) levels.

**Usage**

```
plot_inkar(data, year = NULL)
```

**Arguments**

| | |
|---|---|
| data | A data frame returned by get_inkar_data(). |
| year | Integer/Character. If the data contains multiple years, specify which year to plot. If NULL and multiple years exist, the most recent year is plotted. |

**Value**

A ggplot2 object displaying the mapped data.

---

search_indicators            *Search Indicators and Print Results*

---

**Description**

Search for indicators by keyword. Prints a formatted table and invisibly returns the matches so you can copy the ID for use in inkaR().

**Usage**

```
search_indicators(pattern, lang = c("de", "en"))
```

**Arguments**

| | |
|---|---|
| pattern | Text to search in names and descriptions. |
| lang | Language to search in ("de" or "en"). |

**Value**

A filtered tibble of indicators (invisibly).

---

select_indicator *Interactively Select an Indicator*

---

### Description

Opens a GUI selection list (e.g., in RStudio) to browse and pick an indicator. For code-based workflows, use `inkaR("name")` or `search_indicators()` instead.

### Usage

```
select_indicator(pattern = NULL, lang = c("de", "en"))
```

### Arguments

pattern      Optional character. Pre-filter the list by a keyword or regex. If `NULL` (default), the full indicator list is shown.

lang         Language for names: `"de"` (default) or `"en"`.

### Value

Character. The selected indicator ID, or NULL if cancelled.

---

select_level *Interactively Select a Spatial Level*

---

### Description

Provides an interactive console menu to choose an INKAR spatial level. If a variable ID is provided, it probes the live API to find which levels actually have data for that indicator.

### Usage

```
select_level(variable = NULL)
```

### Arguments

variable     Optional character. The indicator ID to probe available levels.

### Value

Character. The selected level ID, e.g., "KRE".

---

view_indicators                    *View Indicators in RStudio Viewer*

---

### Description

Opens the available indicators in the RStudio data viewer for easy filtering and searching.

### Usage

```
view_indicators(lang = c("de", "en"))
```

### Arguments

lang                Language code: "de" (German) or "en" (English).

### Value

Invokes View() on the data frame.

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