The REG110_TITLE Table

Welcome to table **REG110_TITLE** of PATSTAT Register. This table contains the titles of the patent applications in the official languages of the EPO (English, French, and German), as far as available at the time published in the Gazette.

```
In [1]:  from epo.tipdata.patstat import PatstatClient
         from epo.tipdata.patstat.database.models import REG110_TITLE
         from sqlalchemy import func
         import pandas as pd

         # Initialise the PATSTAT client
         patstat = PatstatClient(env='PROD')

         # Access ORM
         db = patstat.orm()
```

ID (Primary Key)

Technical identifier for an application, without business meaning. Its values will not change from one PATSTAT edition to the next.

```
In [3]: i = db.query(
            REG110_TITLE.id
        ).limit(1000)

        df = patstat.df(i)
        df
```

Out[3]:

	id
0	13766662
1	1303830
2	84302006
3	11813081
4	6765682
...	...
995	21898342
996	16182494
997	17895752
998	17796721
999	99934682

1000 rows × 1 columns

CHANGE DATE

It is the date of when the record was saved in the database.

```
In [4]: change_date = db.query(
            REG110_TITLE.change_date,
            REG110_TITLE.id
        ).limit(100)

        change_date_df = patstat.df(change_date)
        change_date_df
```

Out[4]:

	change_date	id
0	2000-07-07	660028
1	2021-11-05	20933300
2	1995-12-02	92907456
3	2006-11-10	6740921
4	1995-12-01	89903898
...	...	...
95	2024-02-20	23755532
96	2014-07-25	14700943
97	2011-02-04	10745009
98	2002-06-21	98105973
99	2005-04-15	3715775

100 rows × 2 columns

BULLETIN_YEAR

For actions that have been published in the EPO Bulletin, it is the year of the publication in the bulletin. The default value is 0, used for applications that are not published or for which the year is not known. The format is YYYY otherwise.

```
In [5]: years = db.query(
            REG110_TITLE.bulletin_year,
            REG110_TITLE.id
        ).limit(1000)

        years_df = patstat.df(years)
        years_df
```

Out[5]:

	bulletin_year	id
0	2012	10794330
1	0	14853397
2	2017	15778730
3	0	10824139
4	0	18767414
...	...	...
995	2013	10724945
996	2020	18882818
997	1983	82111903
998	2023	21823656
999	2019	18187189

1000 rows × 2 columns

BULLETIN_NR

This is the issue number of the EPO Bulletin for actions that have been published in it. The Bulletin number indicates the calendar week the Bulletin has been published. The default value 0 is used when the attribute `bulletin_year` is 0.

```
In [6]:  bulletin_nr = db.query(
             REG110_TITLE.id,
             REG110_TITLE.bulletin_nr,
             REG110_TITLE.bulletin_year
         ).limit(100)

         bulletin_nr_df = patstat.df(bulletin_nr)
         bulletin_nr_df
```

Out[6]:

	id	bulletin_nr	bulletin_year
0	2779407	0	0
1	7103130	3	2008
2	95926465	33	1996
3	16755992	1	2018
4	10164401	40	2010
...	...	...	...
95	20748289	49	2021
96	20837224	0	0
97	9732173	11	2011
98	86900675	4	1987
99	10819235	27	2012

100 rows × 3 columns

TITLE_LG

The language of the application title. It can be English, French or German.

Let's see what is the most frequent language for titles in PATSTAT Register.

In [7]:
```python
title_lg = db.query(
    REG110_TITLE.title_lg,
    func.count(REG110_TITLE.id).label('number_of_applications')
).group_by(
    REG110_TITLE.title_lg
).order_by(
    func.count(REG110_TITLE.id).desc()
)

title_lg_df = patstat.df(title_lg)
title_lg_df
```

Out[7]:

	title_lg	number_of_applications
0	fr	7333863
1	en	7245630
2	de	5094614

TITLE

The title of the patent application in an official language of the EPO.

For example, we can retrieve all the titles in French by using the attribute `title_lg`.

```
In [8]: title = db.query(
            REG110_TITLE.title
        ).filter(
            REG110_TITLE.title_lg == 'fr'
        ).limit(100)

        title_df = patstat.df(title)
        title_df
```

Out[8]:

	title
0	ÉPAISSISSANT ASSOCIATIF SYNTHÉTIQUE NON IONIQU...
1	MYCOBACTERIES ATTENUEES COMME VECTEURS DE DELI...
2	FILM D'EMBALLAGE AUTOMATIQUE POUR RÉCOLTEUSE D...
3	PROCÉDÉ DE FONCTIONNEMENT D'UE ASSOCIÉ À UNE R...
4	CONTACT DE LIMITE DANS UN ENVIRONNEMENT DE CEN...
...	...
95	VECTEURS COMPOSITES DE LEVURE
96	MATÉRIAU DE BASE DE STRUCTURE, ÉLÉMENT DE STRU...
97	Dispostitif de dérivation optique
98	MARQUAGE DE POLYNUCLEOTIDES PAR PORPHYRINES
99	INSTALLATION DE RESSORT PNEUMATIQUE DESTINÉE À...

100 rows × 1 columns

```
In [ ]:
```