



Europäisches
Patentamt
European
Patent Office
Office européen
des brevets

From data to intelligence

Download and visualisation features



The one slide recapitulation

```
SELECT appln_id, appln_auth, appln_nr, appln_filing_date  
FROM tls201_appln  
WHERE appln_auth = 'DK'
```

```
SELECT appln_id  
FROM tls209_appln_ipc  
WHERE ipc_class_symbol like 'F03D%'
```

```
SELECT person_name  
FROM tls206_person  
WHERE person_name like 'VESTAS%'
```

The one slide question to answer....

- What is the most important patent filed by VESTAS ?
- Who are the most prolific inventors working for VESTAS ?

..... Based on my criteria

The “selected” tables

- The applications

Row	appln_id	appln_auth	appln_nr	appln_filing_date
1	7943	DK	2006000741	22-12-2006
2	7945	DK	2006050081	22-12-2006
3	7947	DK	2006050082	22-12-2006
4	7949	DK	2007000555	20-12-2007
5	7951	DK	2007000556	20-12-2007
6	7953	DK	2007000559	20-12-2007
7	7955	DK	2007000564	21-12-2007
8	7957	DK	2007000566	21-12-2007
9	7959	DK	2007000569	21-12-2007
10	7961	DK	2007000570	27-12-2007

The “selected” tables

- The applications with IPC starting with F03D

Row	appln_id	ipc_class_symbol
1	146	F03D 7/04
2	146	F03D 9/00
3	1040	F03D 7/02
4	1040	F03D 11/00
5	1042	F03D 7/00
6	1042	F03D 7/02
7	1042	F03D 7/04
8	1042	F03D 11/00
9	2176	F03D
10	2176	F03D 1/04
11	2176	F03D 11/00
12	2176	F03D 11/02
13	2701	F03D 3/00
14	2701	F03D 3/04
15	3085	F03D 9/00

Observe !
Multiple classification
codes for 1 application

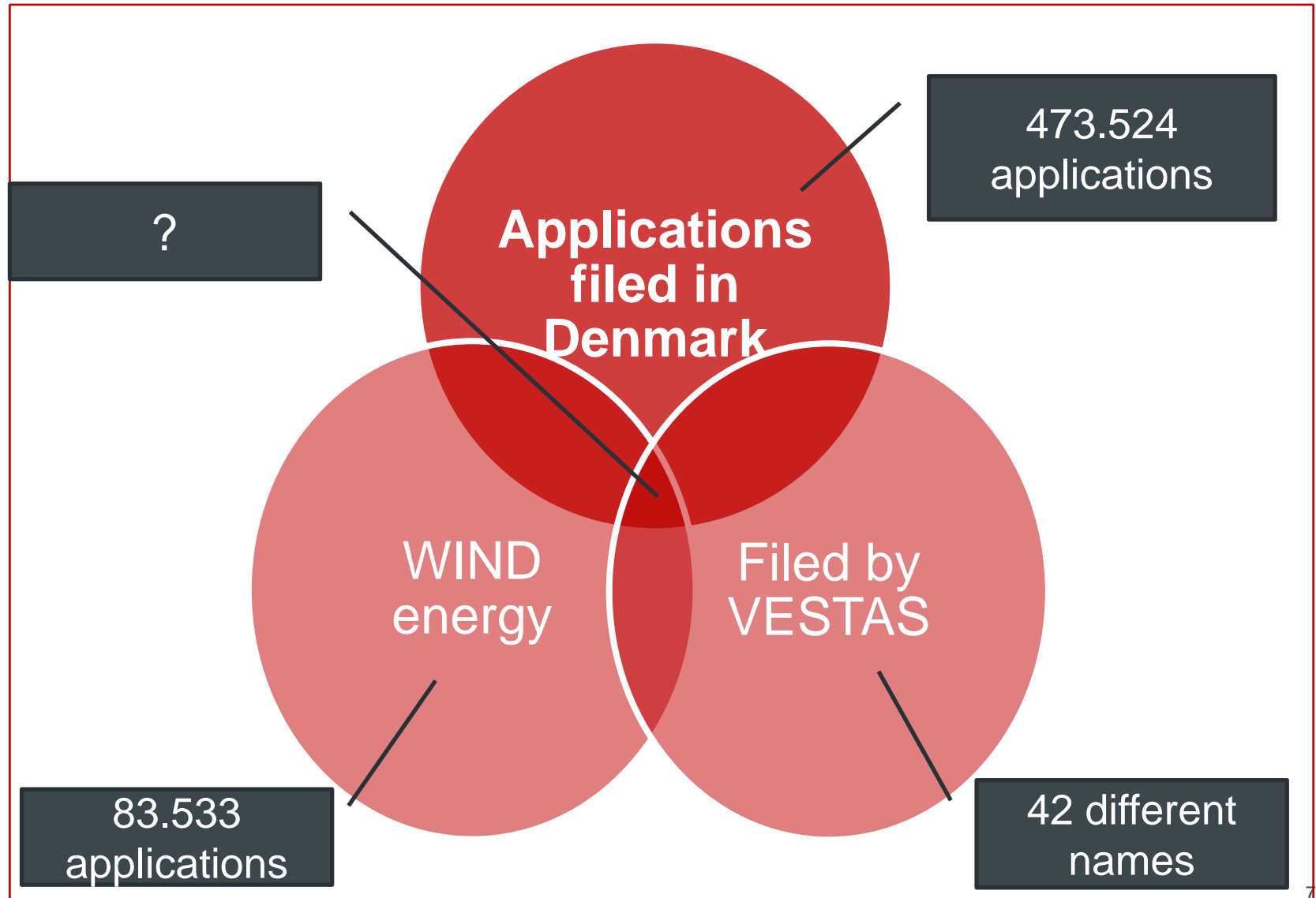
The “selected” tables

Observe !
Diversity names & addresses

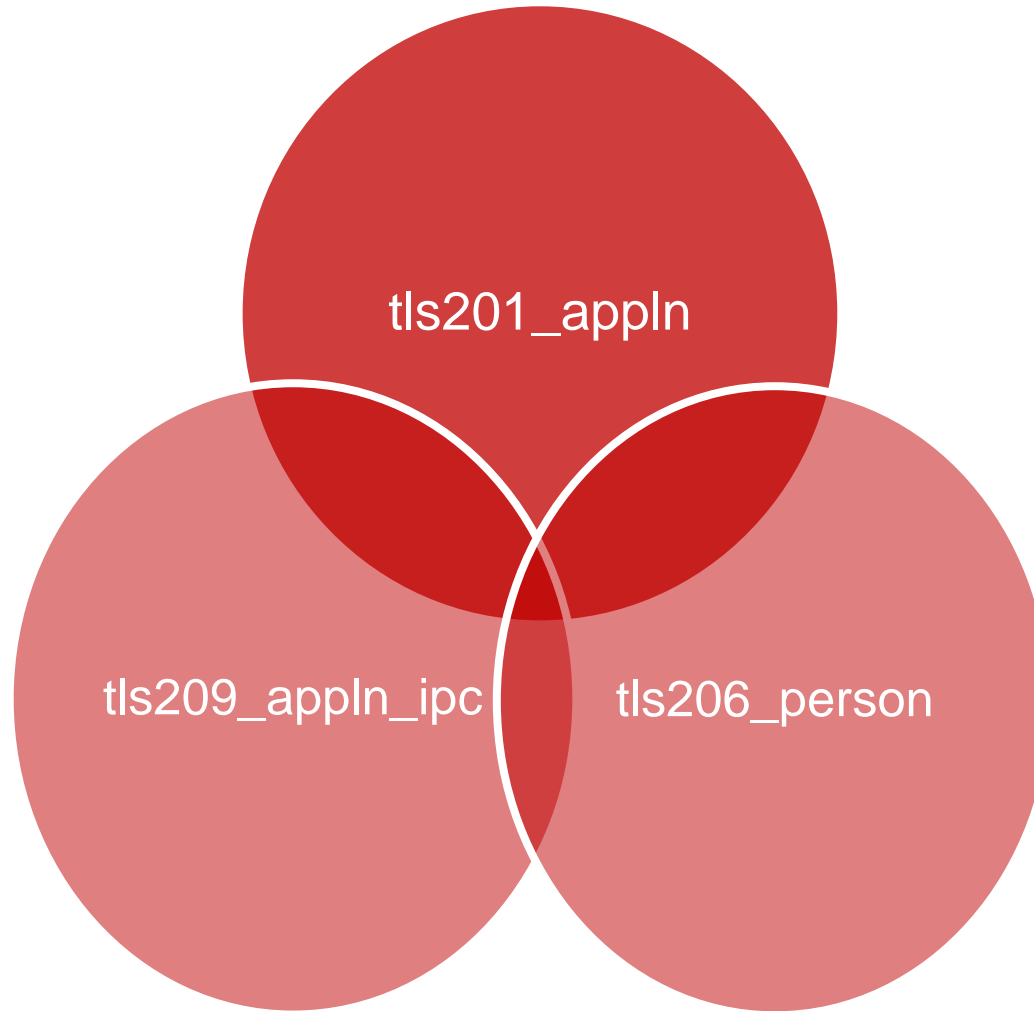
- The “persons” **LIKE** VESTAS

person_name	person_address	person_etry_code	hrm_l2
VESTAS WIND SYSTEM A/S	Smed Sorensens Vej 5, Ringkøbing, DK-6950	DK	VESTAS
VESTAS WIND SYSTEMS A/S	Smed Sorensens Vej 5, Ringkøbing, DK-6950	DK	VESTAS
VESTAS WIND SYSTEMS A/S	Smed Sorensens Vej 5, DK-6950 Ringkøbing	DK	VESTAS
Vestas Wind Systems A/S	Smed Sorensens Vej 5, 6950 Ringkøbing	DK	VESTAS
Vestas Wind Systems A/S	Smed Sorensens Vej 5, 6950 Ringkøbing	DK	VESTAS
Vestas Wind Systems A/S	Smed Soorensens Vej 5, 6950 Ringkøbing	DK	VESTAS
Vestas Wind Systems A/S	Smed Hansens Vej 27, 6940 Lem	DK	VESTAS
VESTAS AIRCOIL A/S,	Smed Hansens Vej 13, Lem	DK	VESTAS AIRCOIL
VESTAS WIND SYSTEMS A/S	Smed Sorensens Vej 5, Ringkøbing, 6950	DK	VESTAS
Vestas Wind Systems A S	Ringkøbing	DK	VESTAS WIND SYSTEMS A S
Vestas Wind Systems A S, R&D	Ringkøbing	DK	VESTAS WIND SYSTEMS A S, R&D
VESTAS WIND SYSTEMS A/S	Ringkøbing, DK-6950	DK	VESTAS
Vestas Wind Systems A/S	Ringkøbing	DK	VESTAS
Vestas Wind System A/S	Ringkøbing	DK	VESTAS
Vestas Wind Systems A/S	Ringkøbing	DK	VESTAS

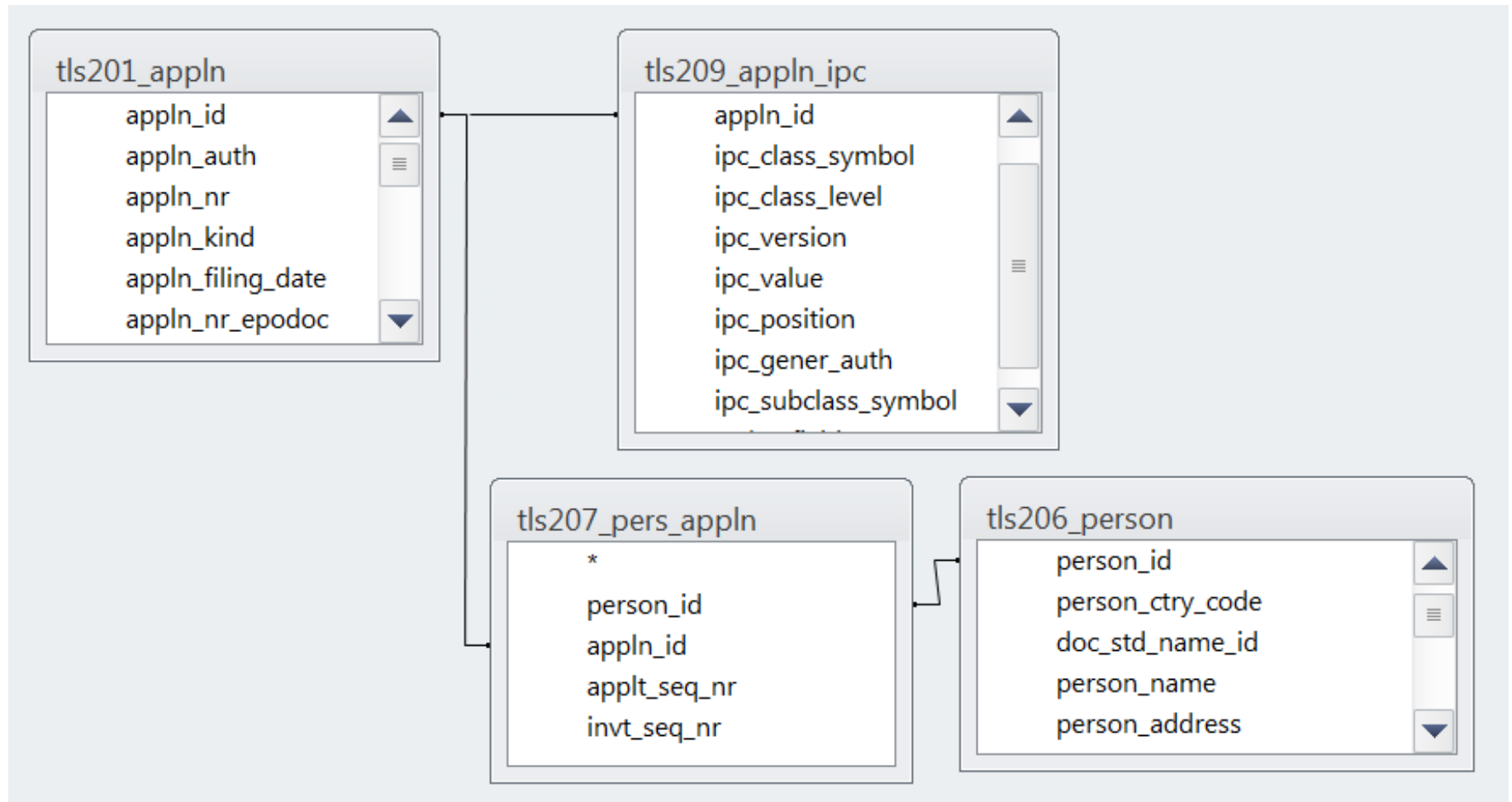
Next step



Next step: Join the tables = make 1 table from many



Next step: Join the tables = make 1 table from many



Join the tables with SQL

```
SELECT appln_auth, appln_nr, appln_filing_date, person_name,  
tls201_appln.appln_id  
FROM tls201_appln JOIN tls209_appln_ipc ON  
    tls201_appln.appln_id = tls209_appln_ipc.appln_id  
  
JOIN tls207_pers_appln ON  
    tls201_appln.appln_id = tls207_pers_appln.appln_id  
  
JOIN tls206_person ON  
    tls207_pers_appln.person_id = tls206_person.person_id  
  
WHERE appln_auth = 'DK' AND ipc_class_symbol like 'F03D%'  
    AND person_name LIKE 'VESTAS%'
```

Next step

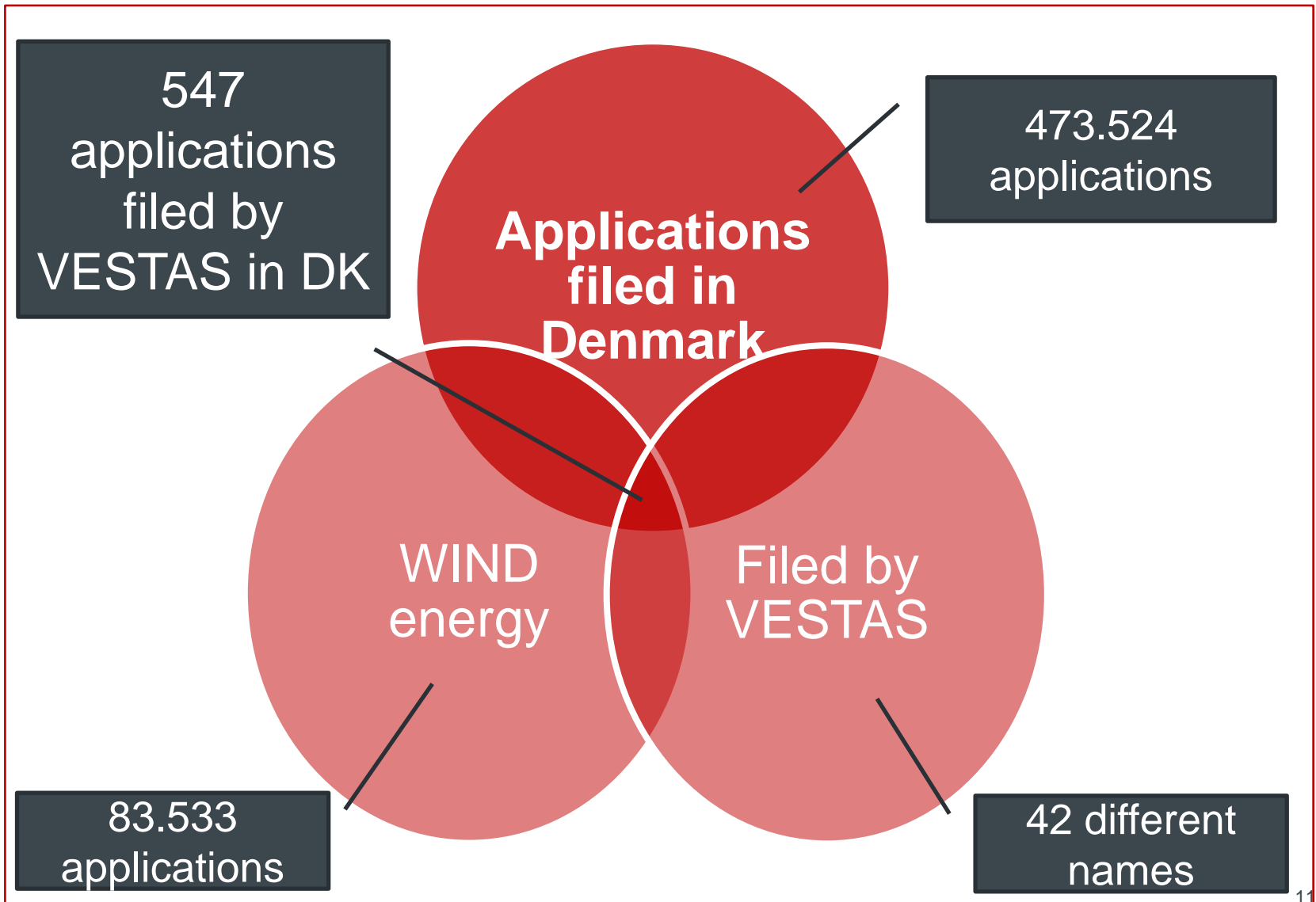


Table Window

Table Window layout

The screenshot shows a database application window with the following components:

- Query Section:** Contains the following SQL query:


```
SELECT appln_auth, appln_nr, appln_filing_date, person_name
FROM
tls201_appln JOIN tls209_appln_ipc ON
    tls201_appln.appln_id = tls209_appln_ipc.appln_id
JOIN tls207_pers_appln ON
    tls201_appln.appln_id = tls207_pers_appln.appln_id
JOIN tls206_person ON
    tls207_pers_appln.person_id = tls206_person.person_id
WHERE appln_auth = 'DK' AND ipc_class_symbol like 'F03D%'
AND person_name LIKE 'VESTAS%'
```
- Messages Section:** Displays a log of database operations and errors, including:
 - 14:43:35 [Result table, 0.057 secs, server #0] Data fetched
 - 15:03:07 [SELECT - 0 row(s), 0 secs] [Error Code: 102, SQL State: S0001]
 - 15:03:20 [SELECT - 0 row(s), 0 secs] [Error Code: 102, SQL State: S0001]
 - 15:03:29 [SELECT - 0 row(s), 0 secs] [Error Code: 102, SQL State: S0001]
 - 15:03:43 [SELECT - 15 row(s), 0.176 secs, server #0] Result set fetched
 - 15:03:53 [Result table, 0.063 secs, server #0] Data fetched
 - 15:04:28 [SELECT - 15 row(s), 0.164 secs, server #0] Result set fetched
 - 15:04:32 [Result table, 0.06 secs, server #0] Data fetched
 - 15:04:40 [SELECT - 15 row(s), 0.167 secs, server #0] Result set fetched
 - 15:04:45 [Result table, 0.062 secs, server #0] Data fetched
 - 15:25:44 [SELECT - 42 row(s), 0.145 secs, server #0] Result set fetched
 - 15:48:02 [SELECT - 0 row(s), 0 secs] [Error Code: 208, SQL State: S0002]
 - 15:48:17 [SELECT - 0 row(s), 1.433 secs, server #0] Result set fetched
 - 15:49:44 [SELECT - 840 row(s), 1.108 secs, server #0] Result set fetched
 - 16:03:18 [Result table, 0.065 secs, server #0] Data fetched
- Result Table:** Displays the results of the query, showing 10 rows of data. The table has the following structure:

Row	appln_auth	appln_nr	appln_filing_date	person_name
1	DK	2013050387	2013-11-18	Vestas Wind Systems A/S
2	DK	2008050265	2008-10-28	Vestas Wind Systems A/S
3	DK	200900063	2009-01-16	Vestas Wind Systems A/S
4	DK	2005000698	2005-11-01	Vestas Wind Systems A/S
5	DK	2011050184	2011-05-31	Vestas Wind Systems A/S
6	DK	07702502	2007-02-21	Vestas Wind Systems A/S
7	DK	2011050135	2011-04-28	Vestas Wind Systems A/S
8	DK	2011050195	2011-06-02	Vestas Wind Systems A/S
9	DK	2011050425	2011-11-10	Vestas Wind Systems A/S
10	DK	2013050237	2013-07-12	Vestas Wind Systems A/S

Callouts in the image identify the 'Query' section, the 'Messages' section, and the 'Result Table' as the result of a query.

Result Window

Result Window layout: only if application IDs are selected

The screenshot displays the PATSTAT 2015 Spring interface. The top menu bar includes 'Preferences', 'Download', 'Print', 'Help', 'Home', 'Search', 'Table', 'Result', and 'Statistics'. The user is logged in as 'gboedt'.

Query Window: The query is as follows:

```
SELECT appln_auth, appln_nr, appln_filing_date,
person_name, tls201_appln.appln_id
FROM
tls201_appln JOIN tls209_appln_ipc ON
    tls201_appln.appln_id = tls209_appln_ipc.appln_id
JOIN tls207_pers_appln ON
    tls201_appln.appln_id = tls207_pers_appln.appln_id
JOIN tls206_person ON
    tls207_pers_appln.person_id = tls206_person.person_id
WHERE appln_auth = 'DK' AND ipc_class_
AND person_name LIKE 'VESTAS%'
```

Result List: The result list shows a table of application numbers and filing dates. The selected entry is:

Application
DK 2008000024 W 20080123
DK 2008050052 W 20080229
DK 2008000200 W 20080530
DK 2008000232 W 20080620
DK 2008000246 W 20080630
DK 2008000261 W 20080711

Application Details: The details for the selected application (DK 2008050052 W 20080229) are shown on the right. The title is 'WIND TURBINE WITH LOW ELECTROMAGNETIC RADIATION'. The application is 'DK 2008050052 W 20080229'. The publication is 'Go to Espacenet' with links to 'WO 2008092464 A2 20080807' and 'WO 2008092464 A3 20090409'. The abstract is 'The invention provides a wind turbine with a lightning arrester system including one or more lightning receptors (R) mounted on one or more rotor blades. A down conductor electrically connects one or more lightning receptors (R) to electrical ground via a sliding contact arrangement (SC), and an electromagnetic radiation (EM) reduction device encircles a portion of the down conductor so as to reduce EM radiation from the down conductor due to static electric discharges caused by imperfect electric contact in the sliding contact arrangement (SC). Known types of EM radiation reduction devices in the form of commercially available common mode choke coils, cylindrically shaped nano-crystalline solid body types, or the like, can be used. A plurality of different types with different EM radiation reduction properties can be used in combination. To obtain more effective EM radiation reduction, a plurality of EM radiation reduction devices can be used, e.g., positioned at several portions of the down conductor, especially close to sliding contact (SC)'.

IPC Classifications: The IPC classifications are 'F03D 11/00 (2006.01)' and 'H02G 13/00 (2006.01)'.

Annotations:

- Query:** Points to the SQL query text.
- Application number and filing date:** Points to the selected entry in the result list.
- some bibliographic information with links to Espacenet and WIPO IPCs:** Points to the publication links and IPC classifications.

Statistics Window:

Built-in cross reference charts AND Patent value indicator

REMEMBER ?

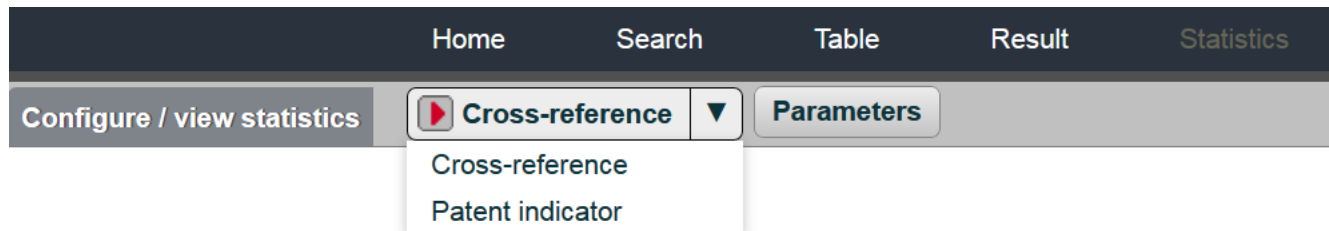
- What is the most important patent filed by VESTAS ?
- Who are the most prolific inventors working for VESTAS ?

What is the most important patent filed by VESTAS ?

Step 1

- Make an SQL query that selects your data sample (done) and take option “statistics”.

(DONE)



Step 2

- Choose “Patent indicator”

Home Search Table Result Statistics

Configure / view statistics Cross-reference Parameters

Cross-reference
Patent indicator

Parameters for patent indicator

Technical field all

Sort by A-number cited (DocDB family-family citation)

Coefficients for

A-number cited (DocDB family-family citation)	1	f(A)
B-size of family	0	f(B)
C-number of applicants	0	f(C)
D-number of inventors	0	f(D)
E-grant	0	f(E)

Offset 0

Coefficient normalized form

$1.00*A + 0.00*B + 0.00*C + 0.00*D + 0.00*E$

Training set Training set

Average error

Save parameters Load parameters Calculate Cancel

Composition of the patent indicator:

- Number of citations (family)
- Size of the patent family
- Number of applicants
- Number of inventors
- Granted or not

Coefficients can be given weights

Step 3

- Calculate the patent indicator

Parameters for patent indicator

Technical field ▼

Sort by ▼

Coefficients for

A-number cited (DocDB family-family citation)	<input type="text" value="1"/>	<input type="button" value="f(A)"/>
B-size of family	<input type="text" value="0"/>	<input type="button" value="f(B)"/>
C-number of applicants	<input type="text" value="0"/>	<input type="button" value="f(C)"/>
D-number of inventors	<input type="text" value="0"/>	<input type="button" value="f(D)"/>
E-grant	<input type="text" value="0"/>	<input type="button" value="f(E)"/>

Offset

Coefficient normalized form

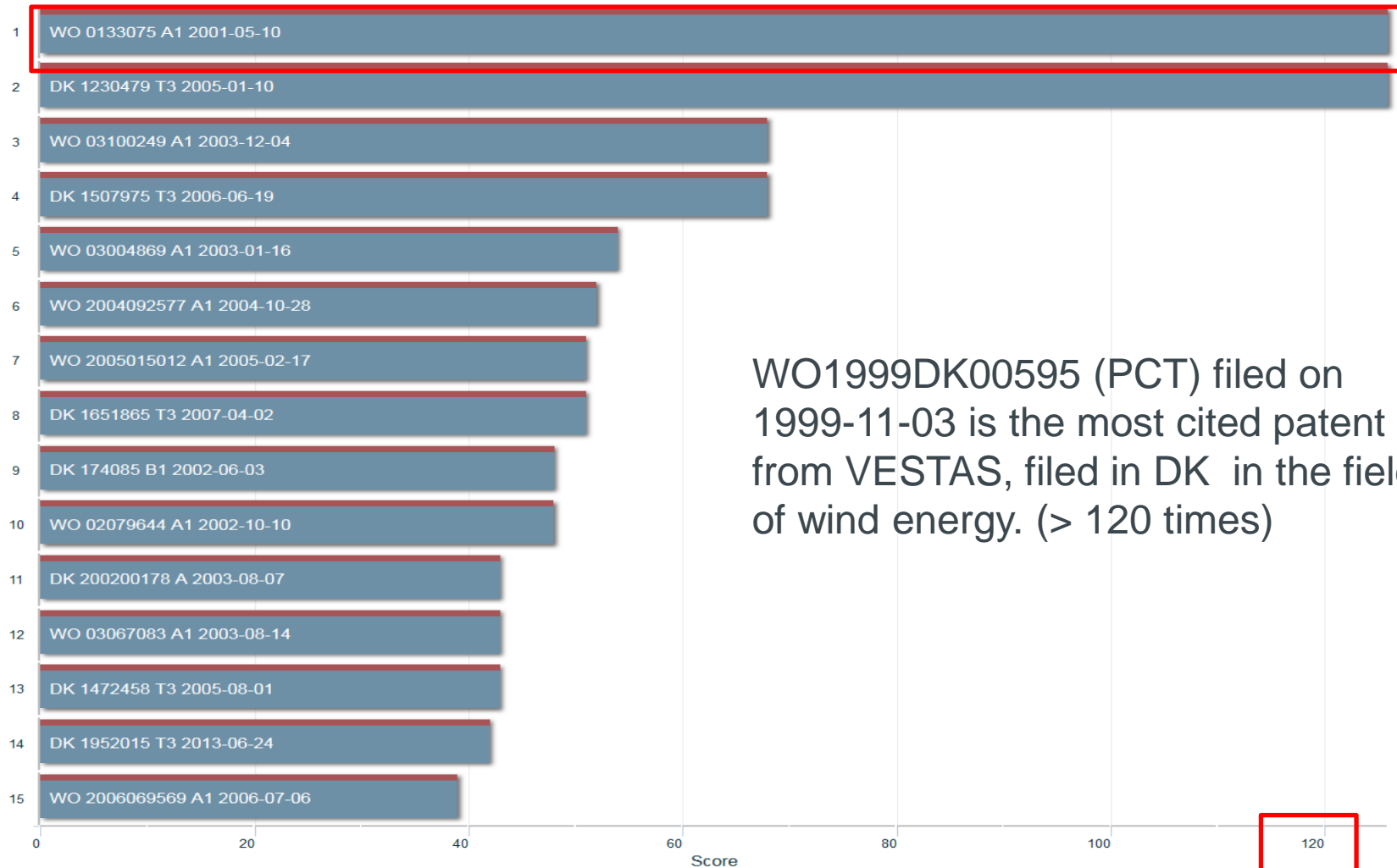
Training set

Average error



Step 4

Results

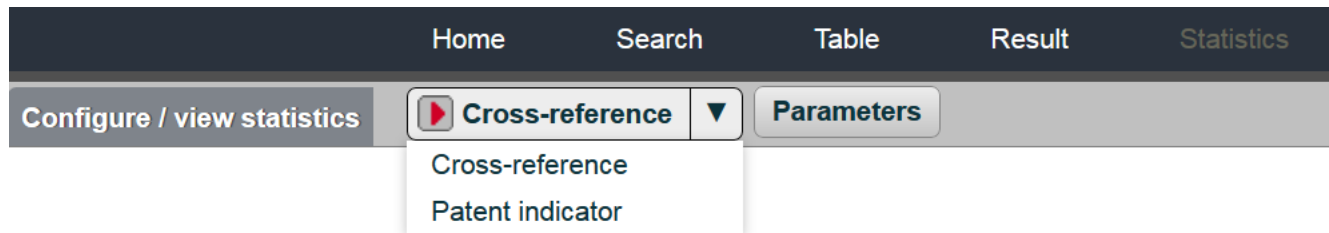


WO1999DK00595 (PCT) filed on 1999-11-03 is the most cited patent from VESTAS, filed in DK in the field of wind energy. (> 120 times)

Find most prolific inventor working for VESTAS

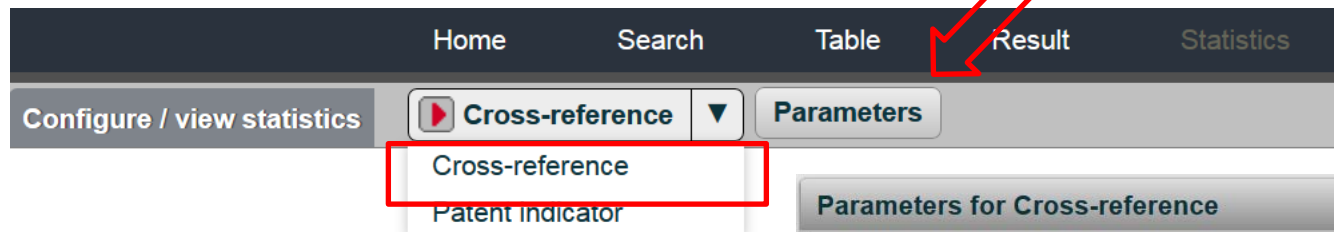
Step 1

- Make an SQL query that selects your data sample (done) and take option “statistics”.



Step 2

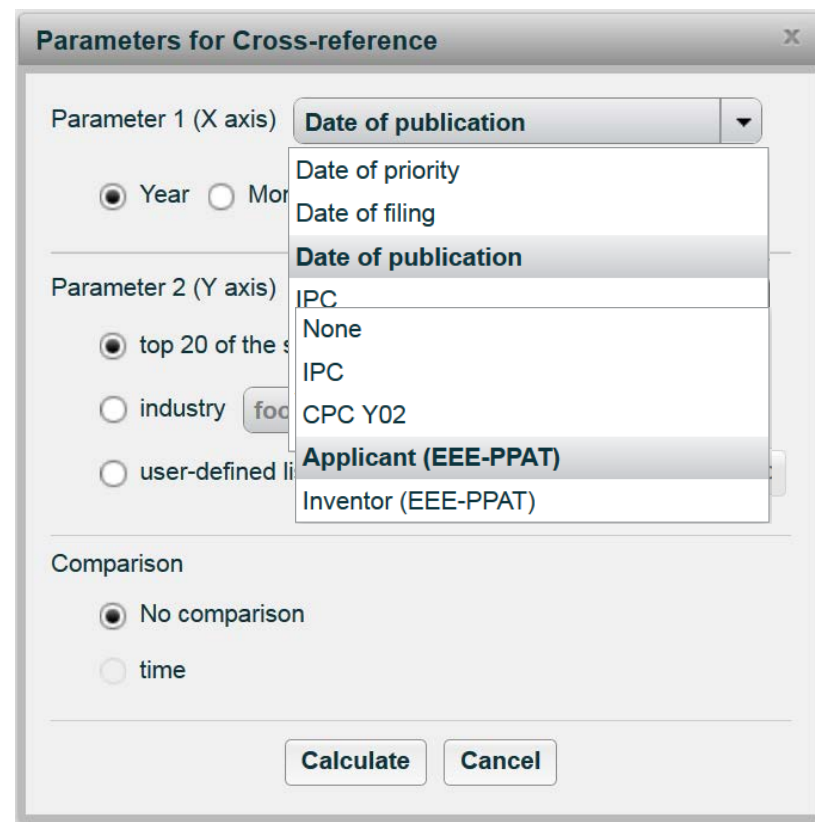
- Choose “Cross-reference” & calculate



Composition of the cross reference

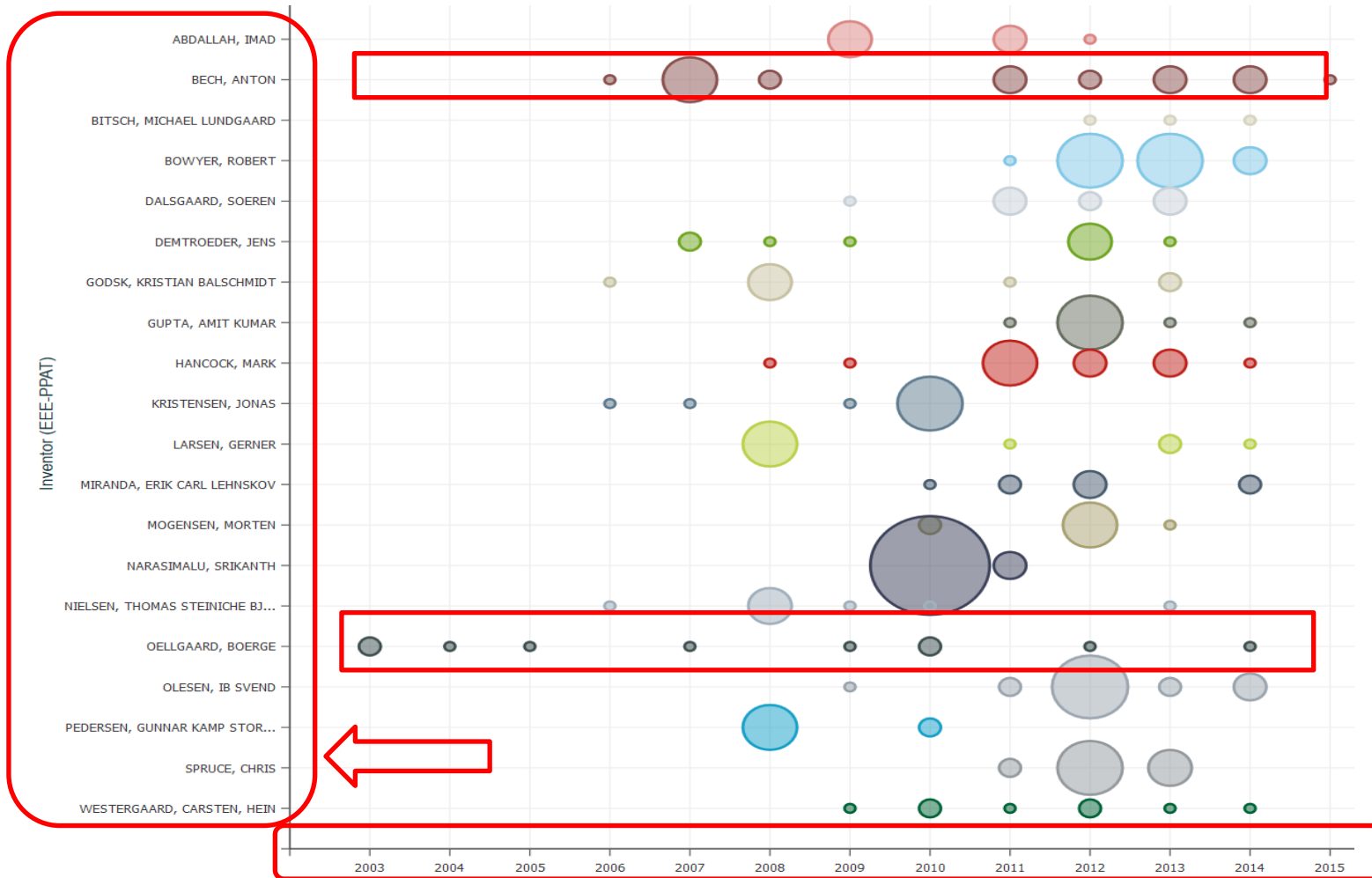
- Define X-axis parameter
- Define Y-axis parameter

Which one's do you take ?



Step 3

■ Calculate the cross reference chart



When PATSTAT Online is not enough...

Advanced data download

Subset download: Download multiple tables as a database

Select option
“PATSTAT Subset”

Free description

Select download format

Select required tables

If compatibility is required

Powerful expansion
options

Download

What: PATSTAT subset

Description: Y02E 10/7% applications

Format:

- ☐ Patstat's raw data format (.csv)
- ☒ MS Access 2007/2010 (.accdb)
- ☐ MS Access 2003 (.mdb)

Table subsets:

- ☒ All tables
- ☒ tls201_appln
- ☒ tls202_appln_title
- ☐ Abstract: Abstracts cannot be extracted due to their data volume.
- ☒ tls204_appln_prior
- ☒ tls205_tech_rel
- ☒ tls207_pers_appln

☒ Only PATSTAT Raw Data attributes

Data Expansion:

- ☒ Include family members of all applications
 - ☒ Simple / docdb family
 - ☐ Inpadoc family
- ☒ Include citing / cited applications

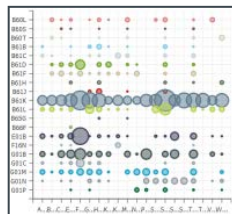
OK Cancel

Summary of visualisation and download options

The result of a PATSTAT query can be used with built-in charts or downloaded for local analysis and visualization



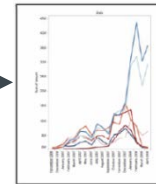
**PATSTAT
Online**



Download
graphs (pdf)
on user's PC

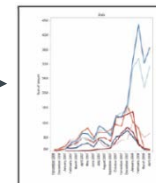


Download
Patstat subset
on user's PC



local analysis /
visualization
(**multiple tables** in
PATSTAT data
structure)

Download
Result Table
on user's PC



local analysis /
visualization
(**single table**)

Thank you for your attention!

Geert Boedt

patstat@epo.org