

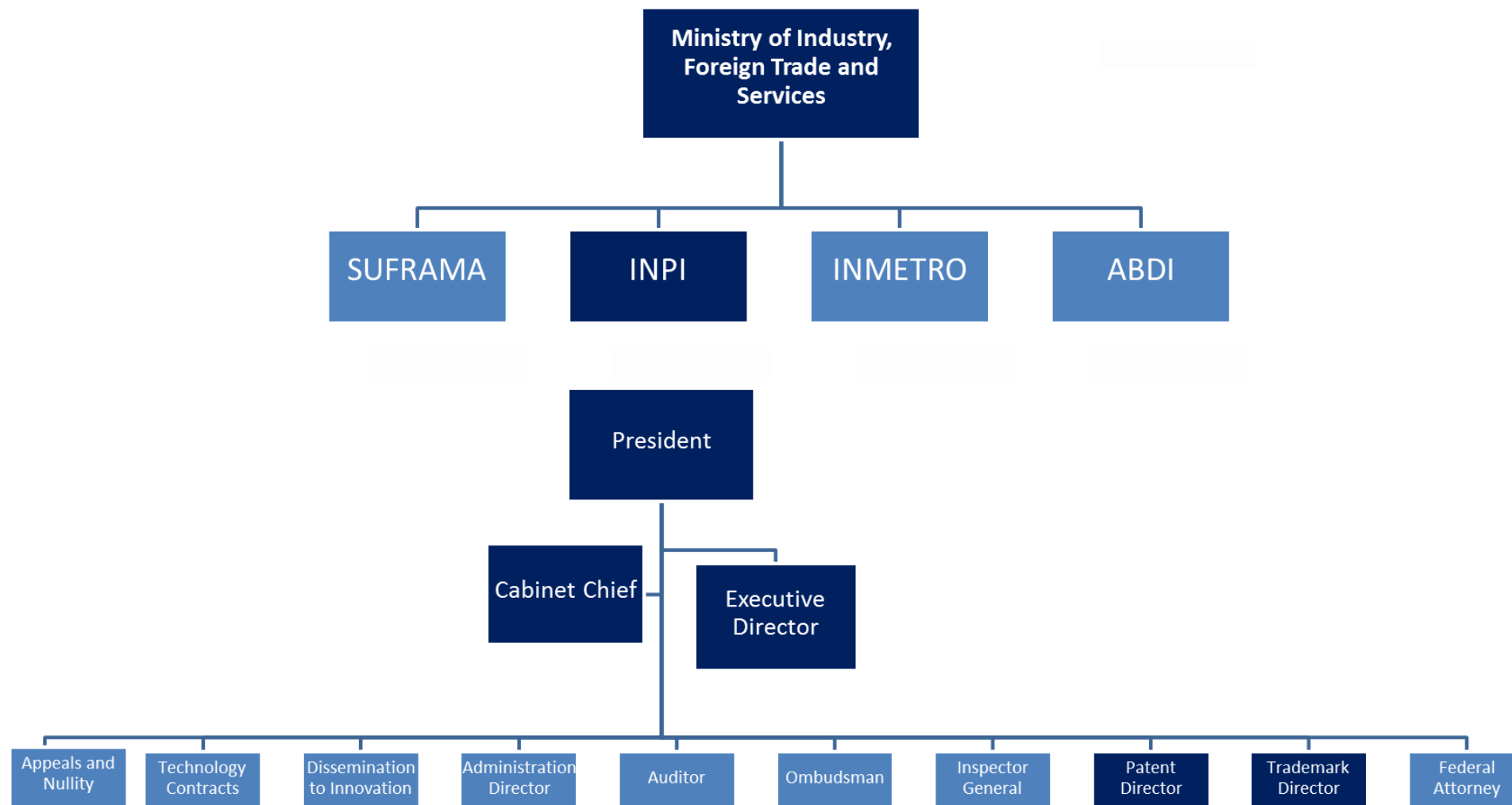
INPI Economic and Statistics Analysis

Alicante
October 20th, 2018

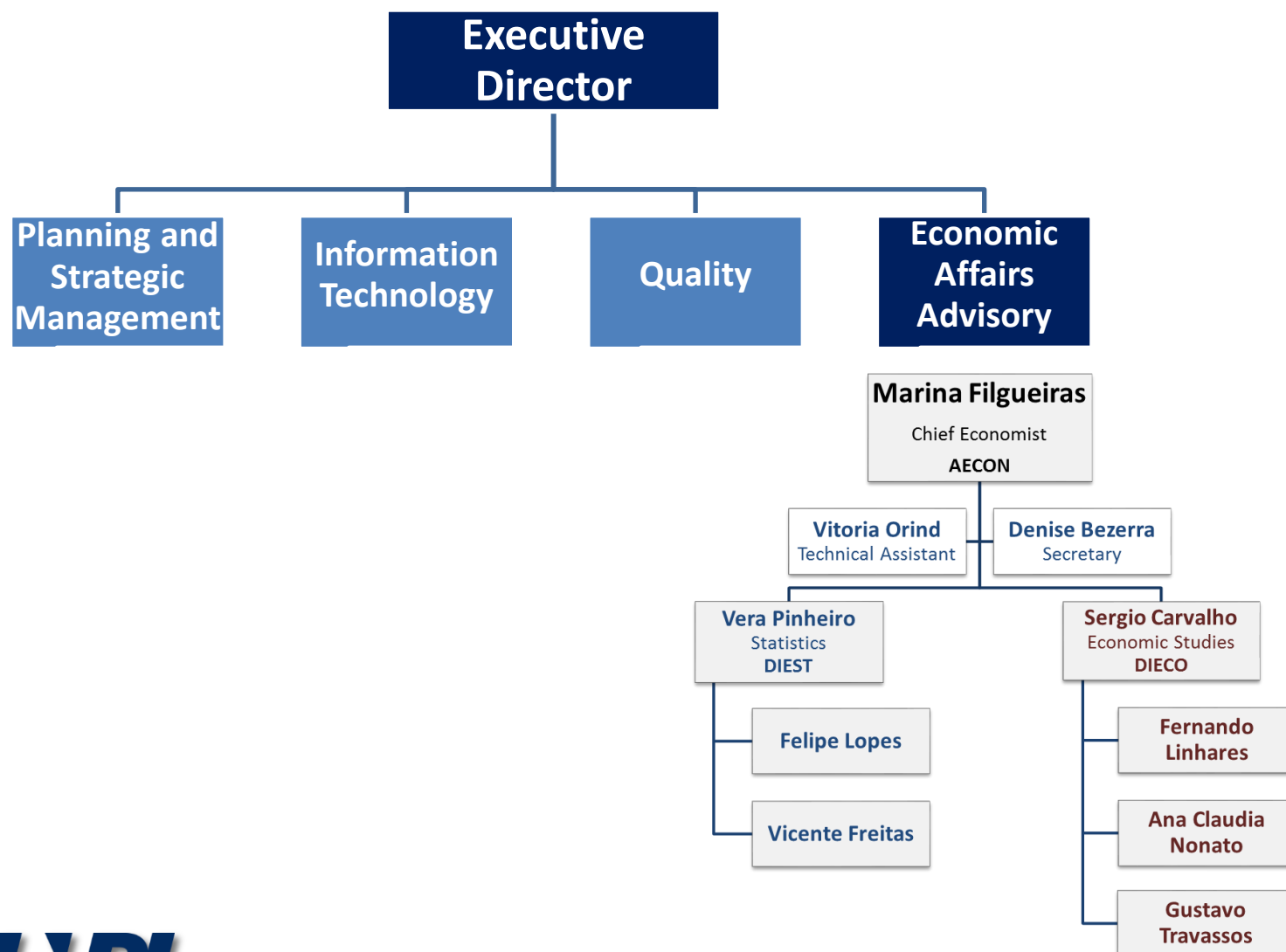
Overview

- Organizational structure
- Department's responsibility
- INPI Intellectual Property Statistical Database - BADEPI
- INPI Statistical Reports
- Current and upcoming research activities
- Annex

Organizational structure



Organizational structure



Department's responsibility

The **Economic Affairs Advisory (AECON)** is responsible for:

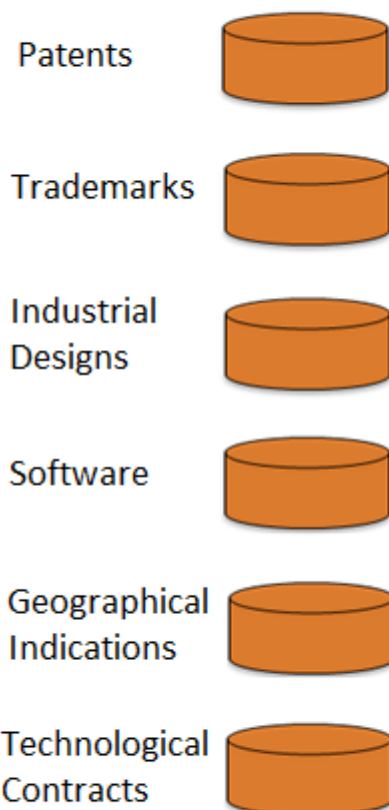
- Planning, preparing, publishing and keeping updated statistics of the INPI
 - internal and external statistical reporting
- Economic research

INPI Intellectual Property Statistical Database – BADEPI

First Phase

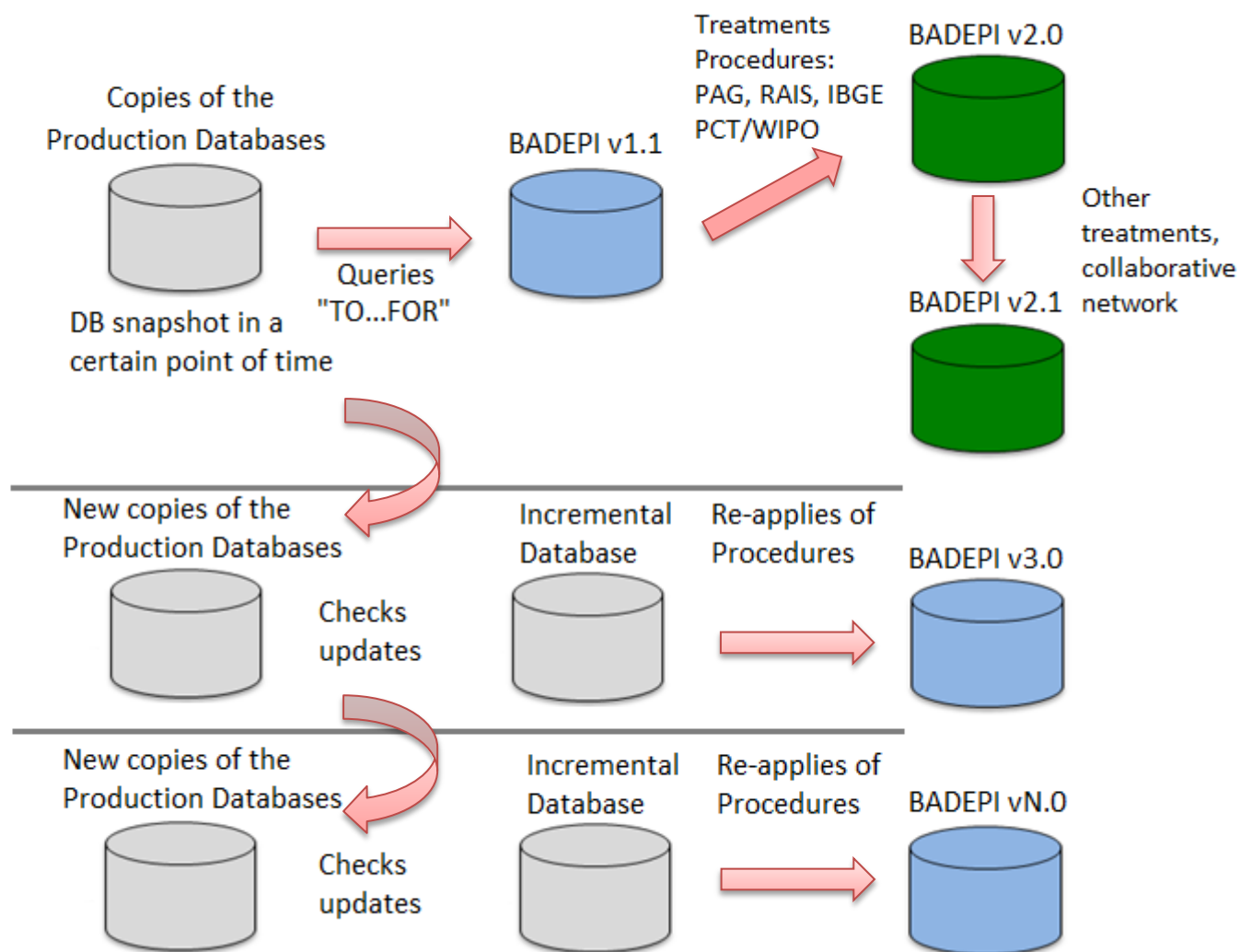
- The Brazilian IP Office (INPI) has, with the technical and financial support of WIPO/Economic and Statistical Division, prepared a database designed to assist in statistical research into intellectual property information.
- IP Coverage:
 - Patents
 - Trademarks
 - Industrial Designs
 - Software
 - Geographical Indications
 - Technological Contracts
- Time coverage: 2000-2012
- Collaborative Project between: INPI, WIPO and among Brazilian agencies
- Coordinated by INPI/AECON (Economic Affairs Advisory)

INPI Production Databases



Dynamic Records!

INPI Industrial Property Statistical Database - BADEPI



Current Phase

- Use INPI Services Payment System (PAG) to infer data more efficient and in a monthly basis (*As discussed at WIPO meeting in 2013*)
- BADEPI is being updated with the new methodology, integrating PAG System and the Production Databases
- IP Coverage: similar to the first phase
- Time coverage: 2013-2017
- Coordinated by INPI/AECON (Economic Affairs Advisory)

INPI Statistical Reports

Industrial Property Indicators

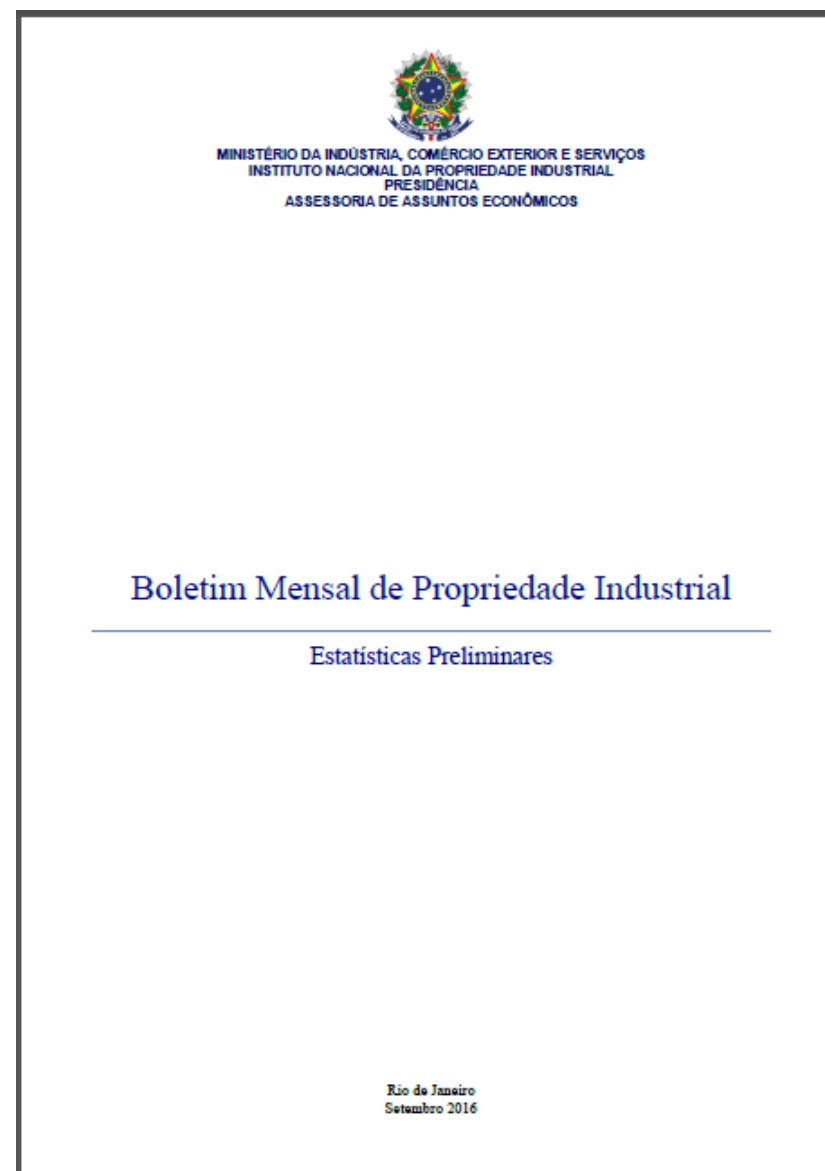
- Published as a WIPO Economic Research Working Paper in 2014
- IP Coverage: 2000-11 (patent, utility model, industrial design and software data) and 2000-12 (trademarks, geographical indications and technological contracts)
- 2nd edition published in 2017
 - IP Coverage: 2000-16
- 3rd edition published in 2018
 - Data until 2017
 - New data was included, like *patents in force*.



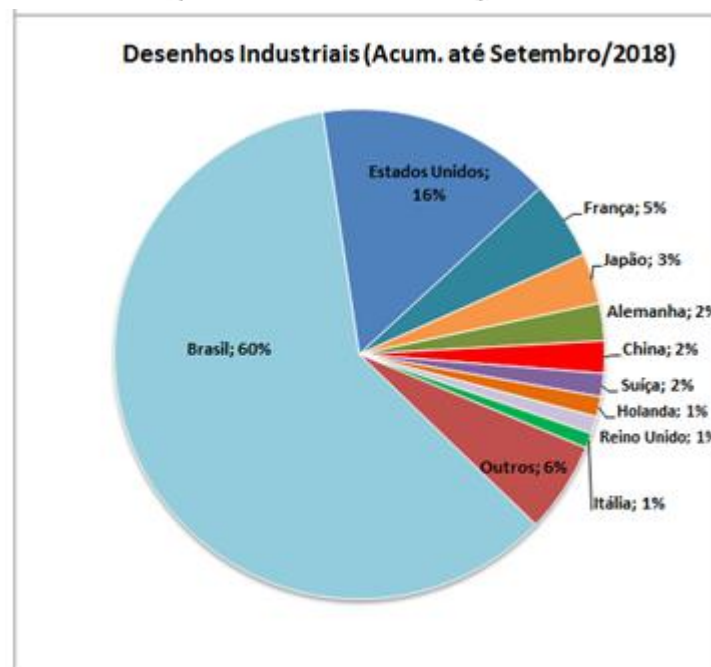
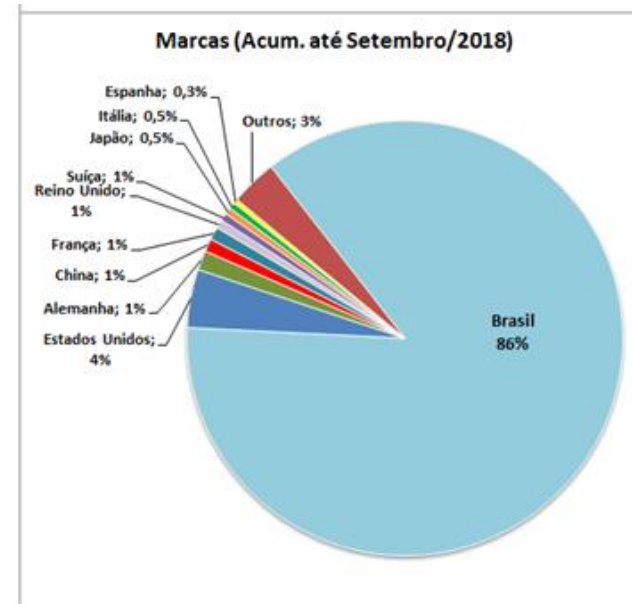
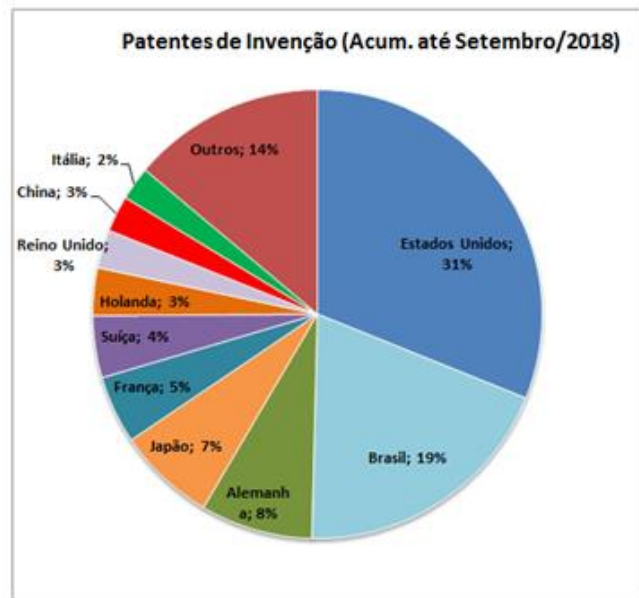
INPI Statistical Reports

Industrial Property Newsletter

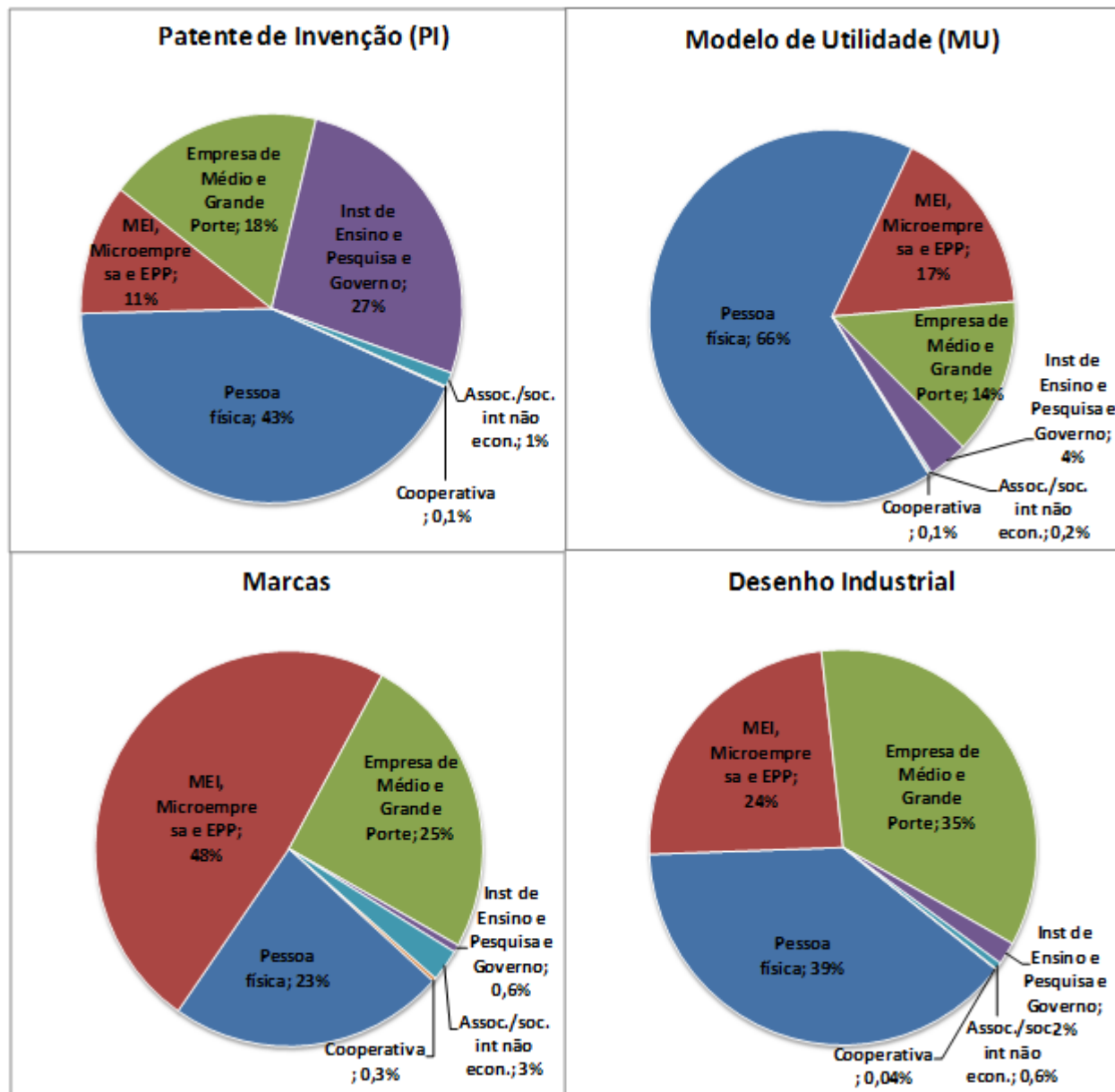
- Monthly publication (started in January, 2016)
- IP Coverage: patent, utility model, trademarks, industrial design, software geographical indications, technological contracts and topographic of integrated circuits
- This report presents the main data of applications and decisions



Applications by Country of Applicant, 2018



Applications by Type of Applicant, 2018



INPI Statistical Reports - Management Indicator

Report of Pending Requests

- Monthly publication (started in January, 2018)
- The report presents the pending stocks of patents, trademarks and industrial designs
- Internal bulletin
- Management indicators



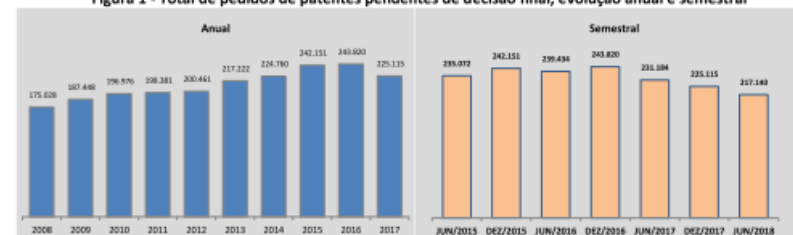
MINISTÉRIO DA INDÚSTRIA, COMÉRCIO EXTERIOR E SERVIÇOS
INSTITUTO NACIONAL DA PROPRIEDADE INDUSTRIAL
DIRETORIA EXECUTIVA
ASSESSORIA DE ASSUNTOS ECONÔMICOS

ESTOQUE DE PEDIDOS PENDENTES
DADOS ATUALIZADOS ATÉ SETEMBRO/2018

PEDIDOS DE PATENTES

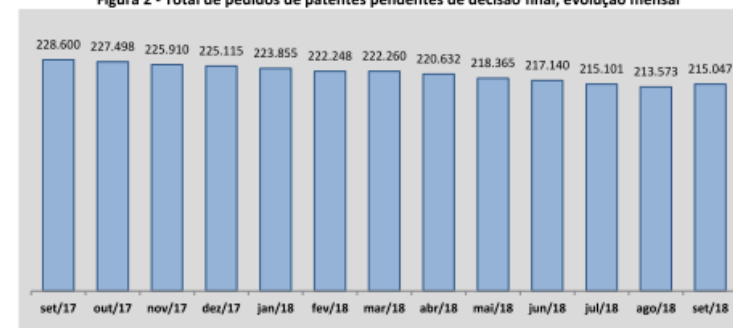
A figura 1 apresenta a evolução do **estoque de pedidos de patentes pendentes de decisão final**. O levantamento é efetuado considerando-se o total de pedidos de patentes depositados no INPI a partir de 1997 e que não receberam decisão final (técnica ou administrativa) até a data de referência.

Figura 1 - Total de pedidos de patentes pendentes de decisão final, evolução anual e semestral



Em setembro/2018, existiam 215.047 pedidos de patentes pendentes de decisão final, apresentando redução de 5,9% em relação a setembro/2017.

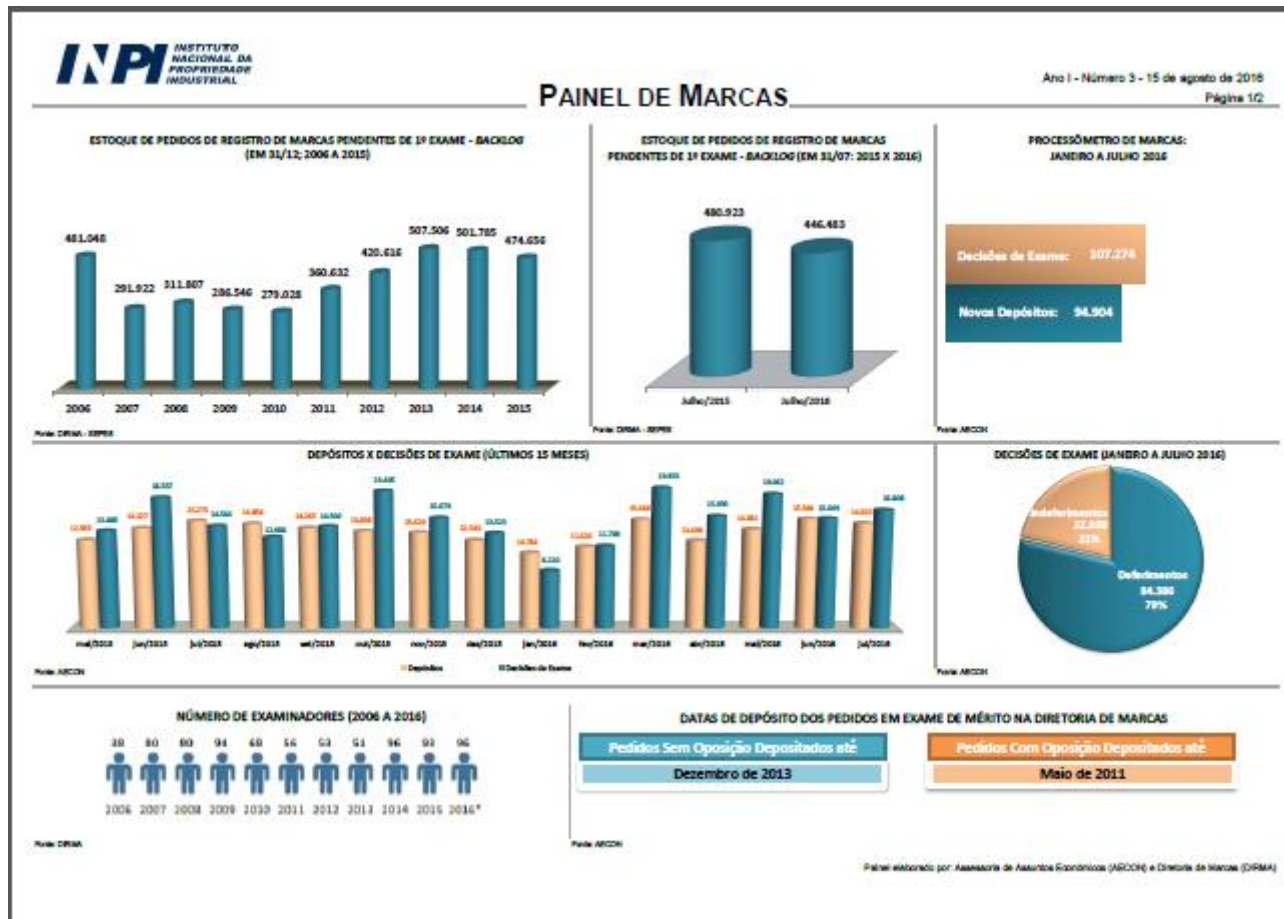
Figura 2 - Total de pedidos de patentes pendentes de decisão final, evolução mensal



Fonte: INPI, Assessoria de Assuntos Econômicos, BADEPI v5.0. Elaborado pela INPI/AECON em colaboração com a INPI/DIRPA.

INPI Statistical Reports - Management

Indicator Trademarks Panel



- Internal bulletin
 - Monthly publication (started in July, 2016)
 - Developed jointly with the Trademarks Board
- This report presents the main data of Trademark applications and decisions

INPI Statistical Reports - Management

Indicator

Boletim Mensal – Indicadores Institucionais do INPI (Marcas 1ª instância)

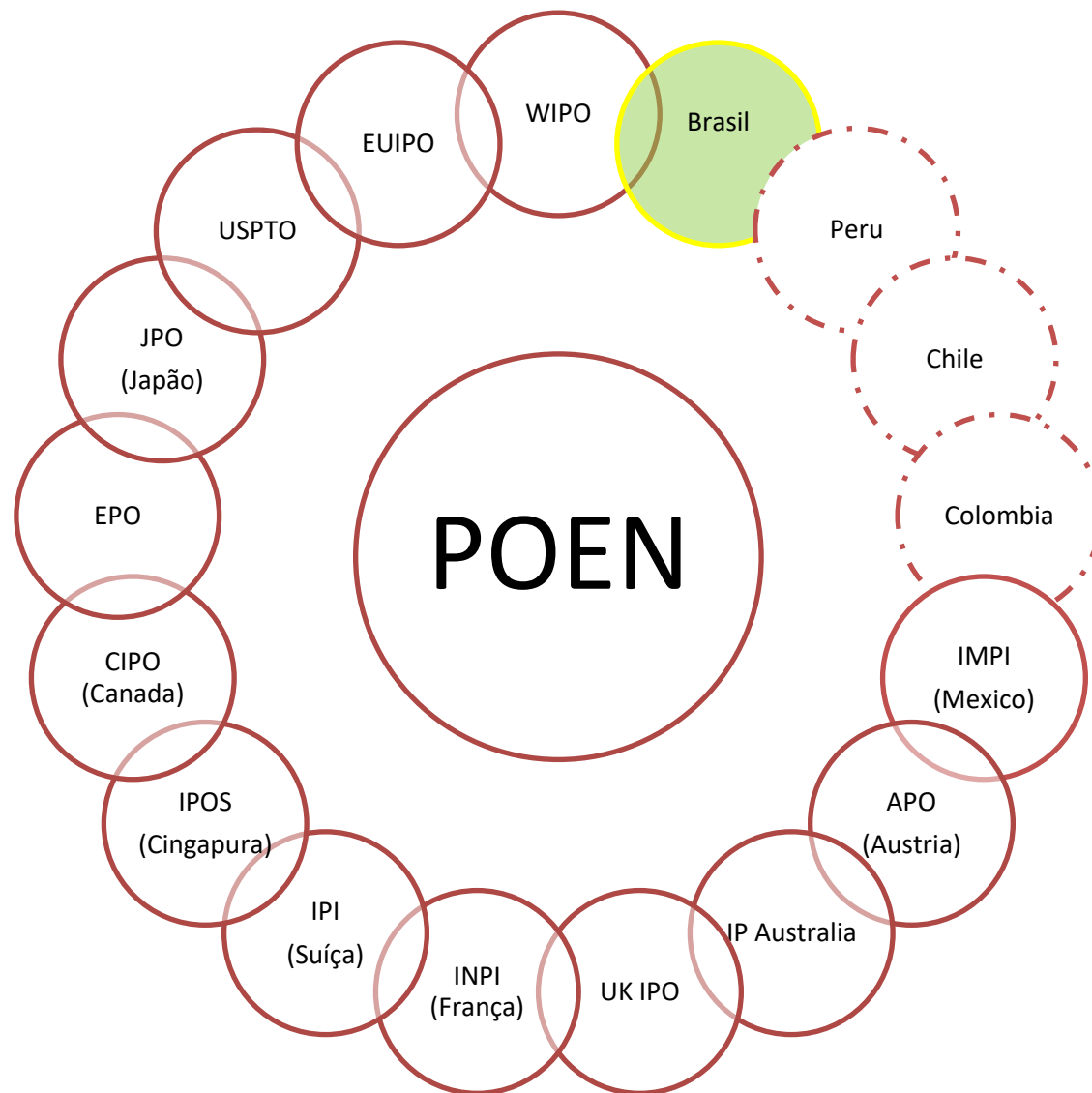


- Internal bulletin
- Monthly publication (started in October, 2017)
- Management indicators

Boletim Mensal
Indicadores Institucionais do INPI

Marcas 1ª instância

IP office economists network



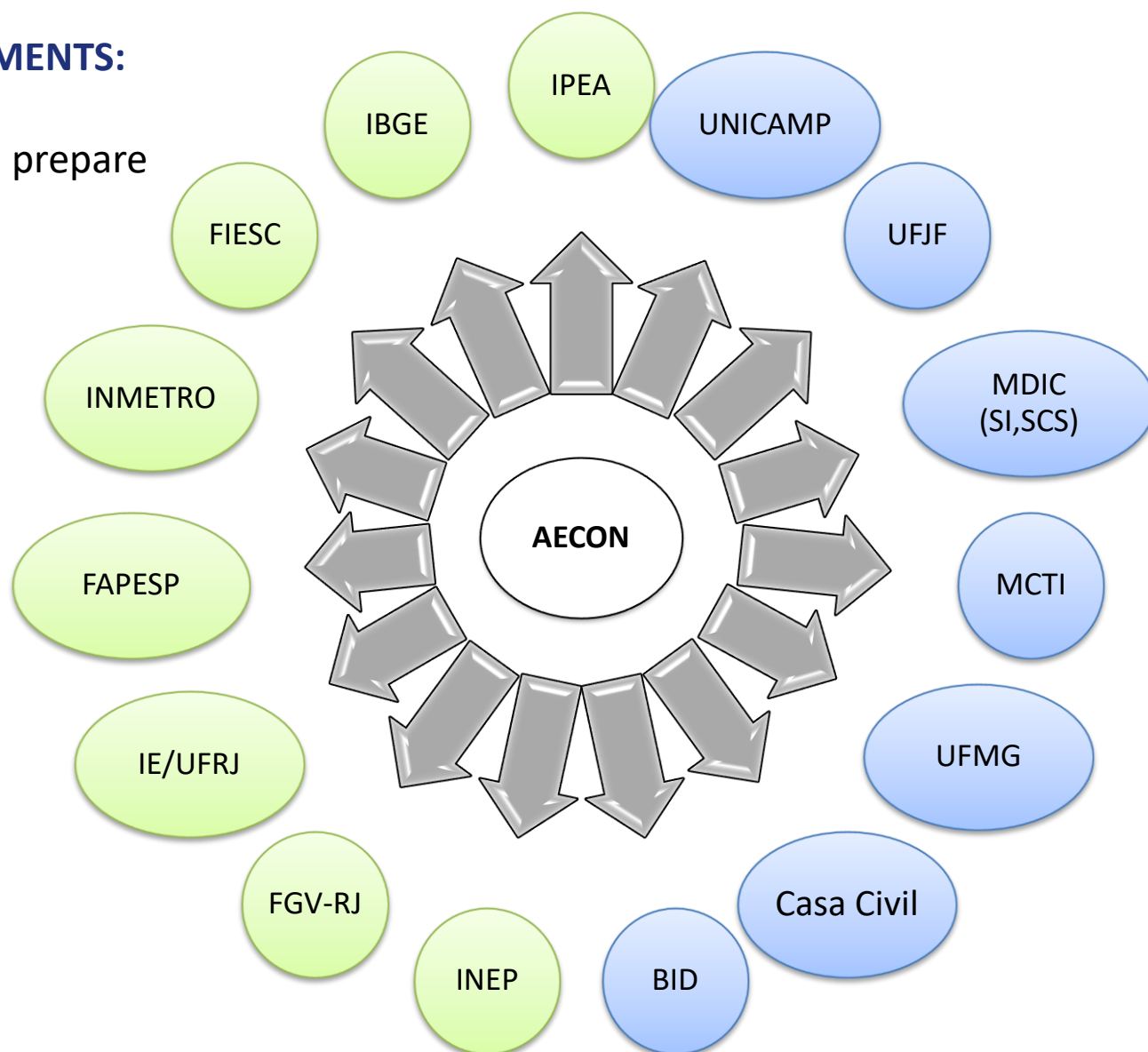
Technical Cooperation – Network

✧ TECHNICAL COOPERATION AGREEMENTS:

- ✧ Data Sharing
- ✧ Combining technical efforts to prepare studies

✧ QUALIFIED USERS:

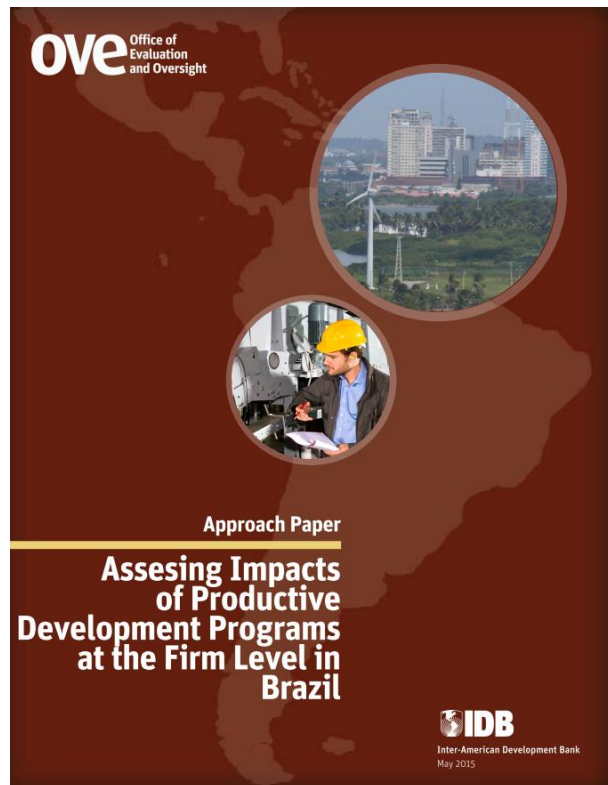
- ✧ Microdata sharing
- ✧ Demand for aggregate data



Cooperation activities – Example

✧ QUALIFIED USERS:

- ✧ Microdata sharing
- ✧ Demand for aggregate data



“ INPI will provide data on patent and trademark registration. OVE will use it to measure the effect of PDP programs on innovation. Due to the backlog in patent processing and trademark registration, OVE will use the “application” for patents and trademarks as a proxy for innovation.”

Resource:

https://publications.iadb.org/bitstream/handle/11319/6951/Assessing_Impacts_Productive_Development_Programs_Firm_Level_Brazil.pdf?sequence=1&isAllowed=y

Cooperation activities

Current and upcoming researches

➤ **Brazilian Mining Sector**

- Project partners: WIPO; regional IP offices (Australia, Brazil, Canada, Chile, USA), academic partners – **Results:** Chapter and Working paper

➤ **IP use in the fashion industry in Santa Catarina**

- Project partners: FIESC – **Results:** Technical Report

➤ **Projection of patent and trademark filings at INPI - Results**

- Internally disclosed technical note; Annual with quarterly reviews
- ARIMA Methodology discussed with WIPO / EUIPO / USPTO

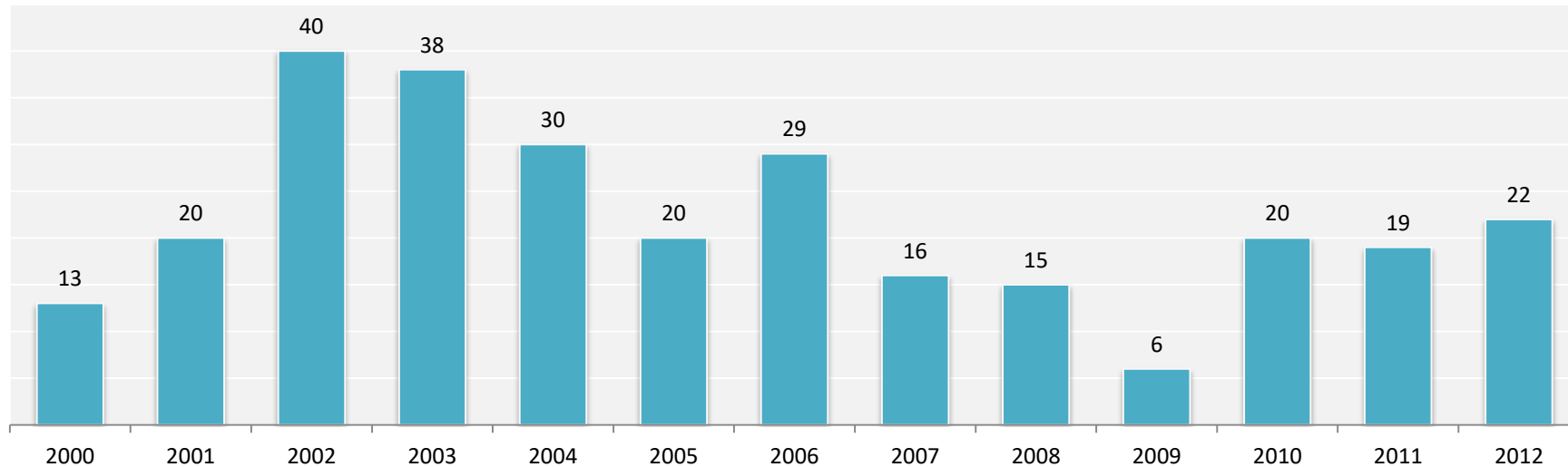
➤ **Intellectual Property Rights intensive sectors: contribution to economic performance and employment –**

- Study already developed by USPTO and EUIPO + EPO
- Brazilian Partnership: MRE+MDIC+MAPA+IPEA+INPI+ABDI
- **Future Results:** Technical Report to policy makers

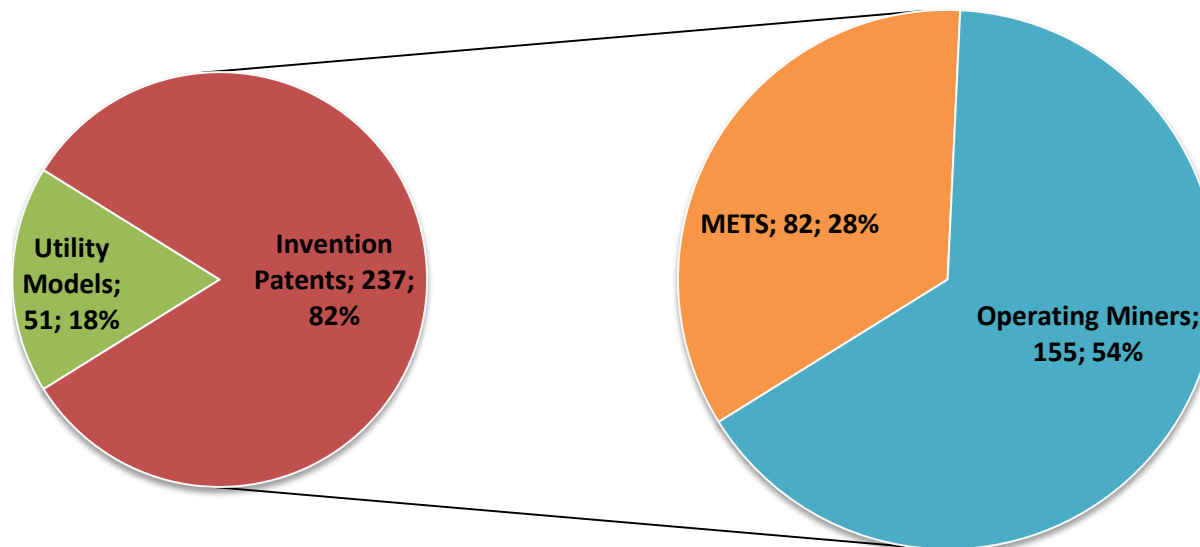
Cooperation activities – Example

Brazilian Mining Sector: Preliminary Results

Applications of Resident Mining Firms, 2000-2012



Applications by Type of Patent and by Type of Firm (METS x Operating Miners)



288 applications by
48 different firms

Future projects

- **Dynamic statistical tables**
- **Forecasting of filing**
 - Annual questionnaires with users
- **Review the existing portfolio of indicators**
- **Sectorial studies:**
 - Food industry
 - Coffee industry

Thanks!

INPI Brazil Economic Affairs Advisory

aecon@inpi.gov.br

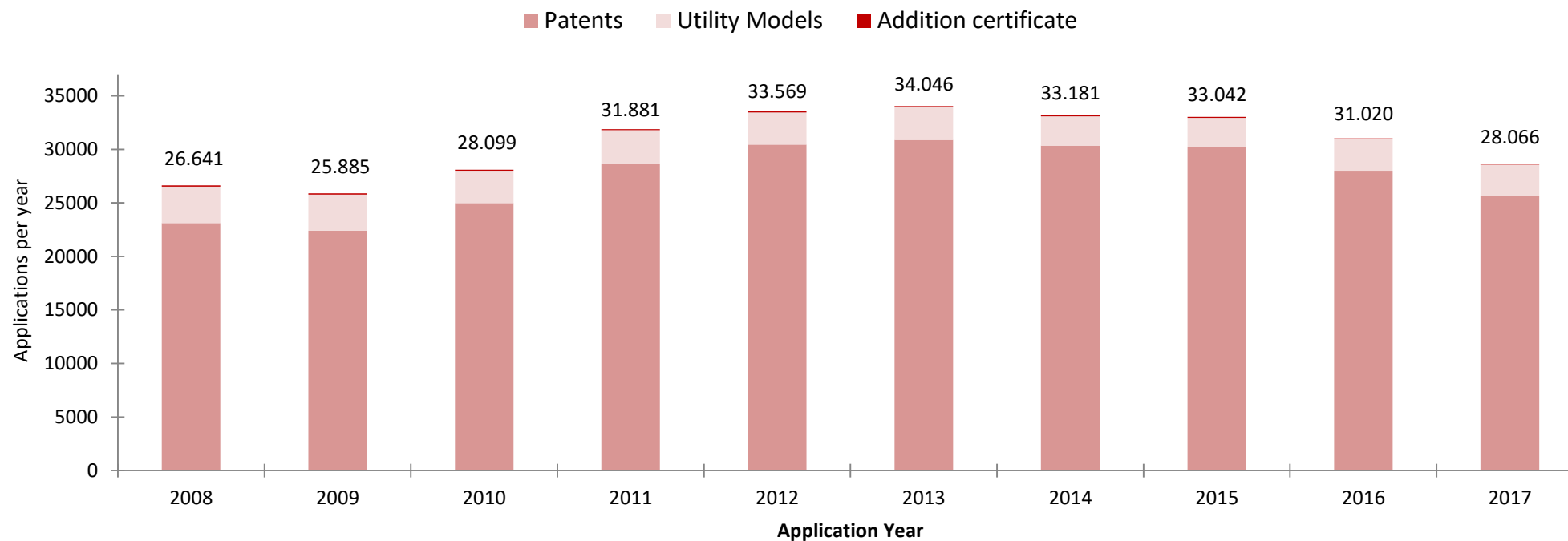
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www.inpi.gov.br/sobre/estatisticas



Annex

Patent applications, 2008-2017*



Total Patent Applications

2008: 26.641

2017: 28.066

+5,3%

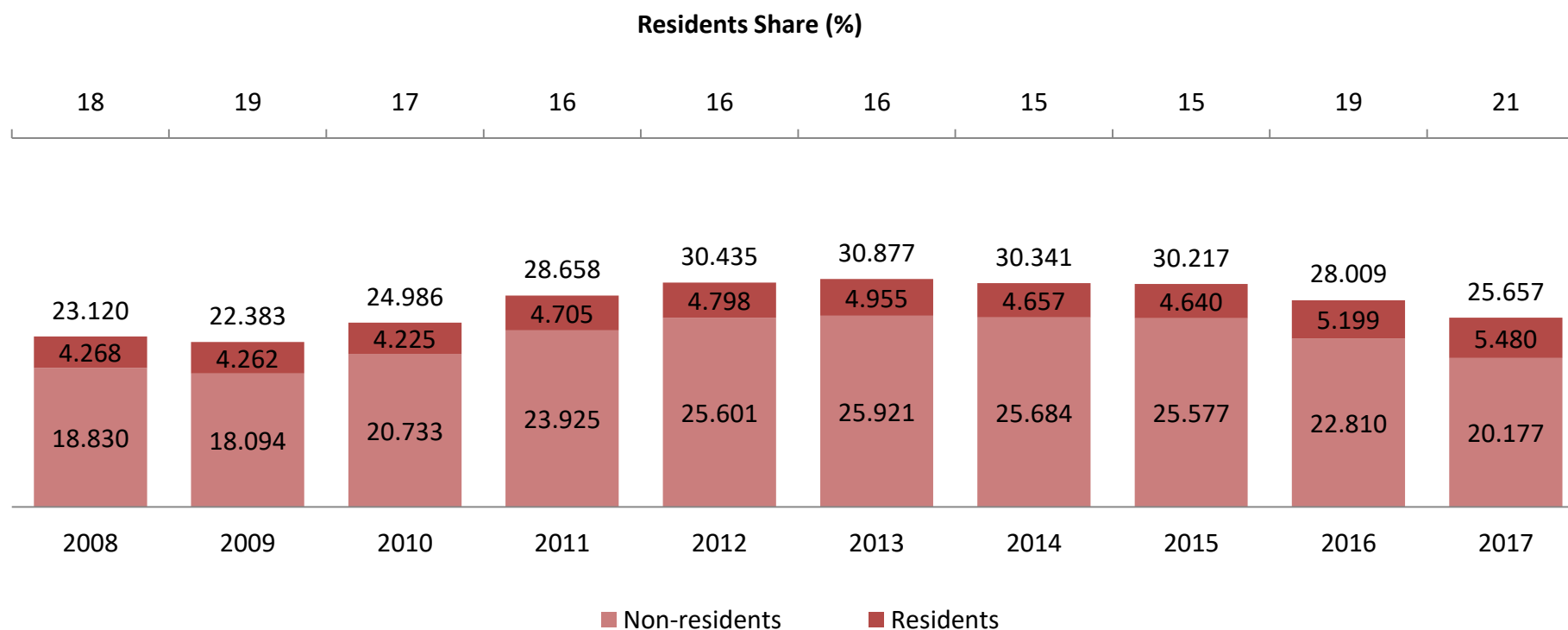
Share 2008/2017

Invention Patents: 87% to 90%

Utility Models: 13% to 10%

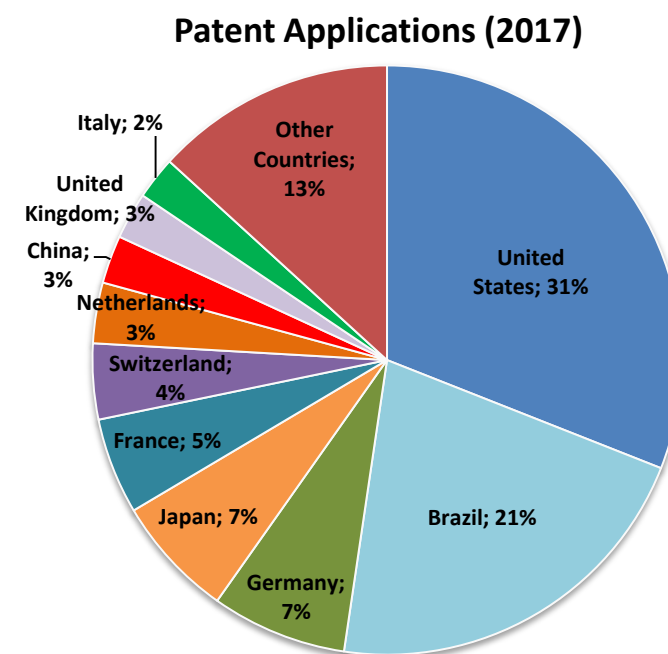
Addition certificate: 0,5% to 0,3%

Patent Applications by Residents and Non-residents, 2008-2017

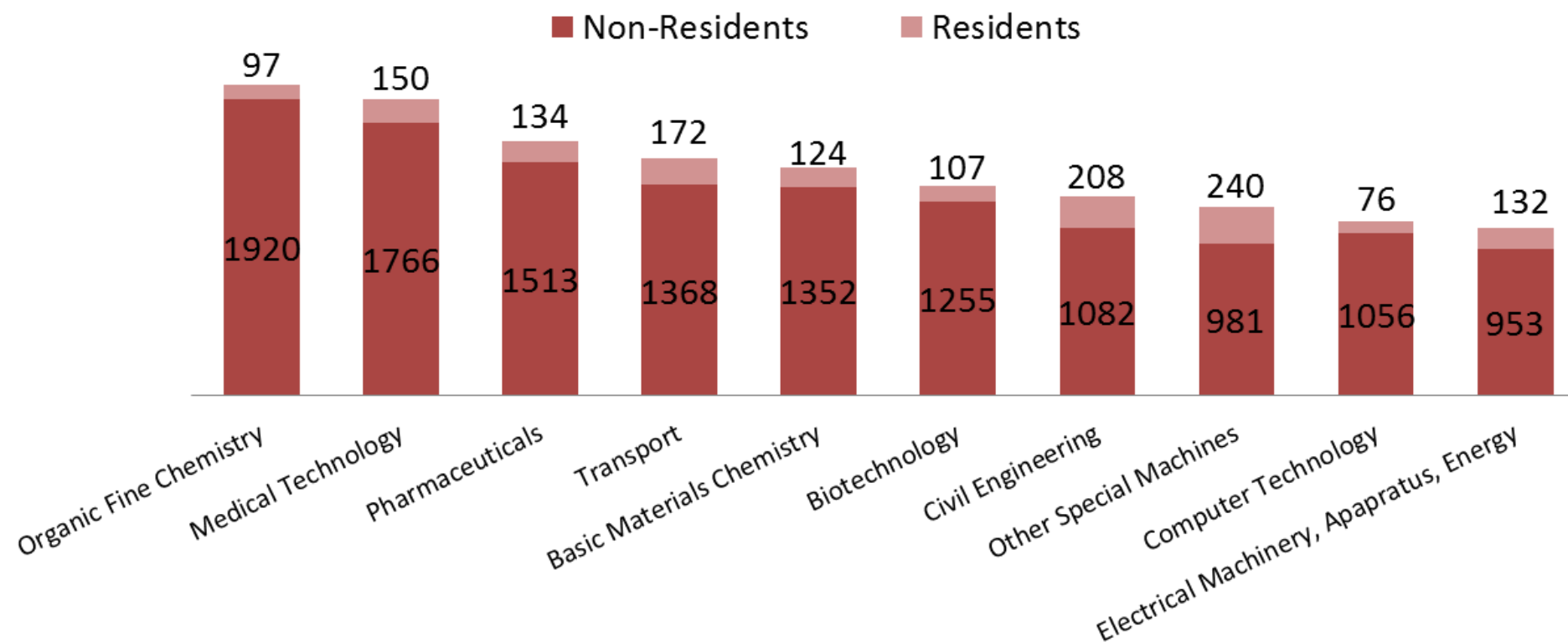


Patent Applications by Country of Origin, 2017

Ranking	Country	2017	Share (%)	$\Delta(2017/2016)$
1	UNITED STATES	7.949	39,4	-13%
2	GERMANY	1.909	9,5	-14%
3	JAPAN	1.717	8,5	-6%
4	FRANCE	1.355	6,7	-7%
5	SWITZERLAND	1.066	5,3	-21%
6	NETHERLANDS	854	4,2	-12%
7	CHINA	676	3,4	-15%
8	UNITED KINGDOM	657	3,3	-6%
9	ITALY	601	3,0	-6%
10	SWEDEN	458	2,3	-24%
	OTHER COUNTRIES	2.935	14,5	-7%
Patent Applications - Non Residents		20.177	100	-12%



Patent Applications in main technological fields, 2015



Patent Applications and Grants by Technological Field, 2008-2015

Technological Field (1st IPC Class)	Applications (A) 2008 - 2015	Grants (B) 2008 - 2015	Relation (B)/(A)
Textile and paper machines	3.864	1012	26,2%
Materials, metallurgy	5.730	1310	22,9%
Other special machines	8.454	1629	19,3%
Macromolecular chemistry, polymers	6.685	1192	17,8%
Surface technology, coating	3.370	592	17,6%
Handling	7.004	1205	17,2%
Chemical engineering	6.915	1164	16,8%
Basic materials chemistry	11.558	1925	16,7%
Mechanical elements	6.431	1048	16,3%
Basic communication processes	469	75	16,0%
Machine tools	4.819	718	14,9%
Engines, pumps, turbines	6.497	868	13,4%
Thermal processes and apparatus	2.690	331	12,3%
Environmental technology	3.467	407	11,7%
Transport	10.807	1207	11,2%
Other consumer goods	4.687	515	11,0%
Organic fine chemistry	16.359	1760	10,8%
Telecommunications	3.367	356	10,6%
Civil engineering	9.578	1011	10,6%
Optics	2.356	237	10,1%
Food chemistry	5.106	513	10,0%
Medical technology	13.612	1305	9,6%
Audio-visual technology	4.241	307	7,2%
Control	2.639	188	7,1%
Furniture, games	3.754	257	6,8%
Electrical machinery, apparatus, energy	8.889	577	6,5%
Measurement	7.136	456	6,4%
Biotechnology	10.011	551	5,5%
Analysis of biological materials	1.498	55	3,7%
Pharmaceuticals	12.415	444	3,6%
Computer technology	7.180	217	3,0%
Micro-structural and nano-technology	79	2	2,5%
Digital communication	7.409	183	2,5%
Semiconductors	957	23	2,4%
IT methods for management	2.028	5	0,2%
Total	212.061	23.645	11,2%

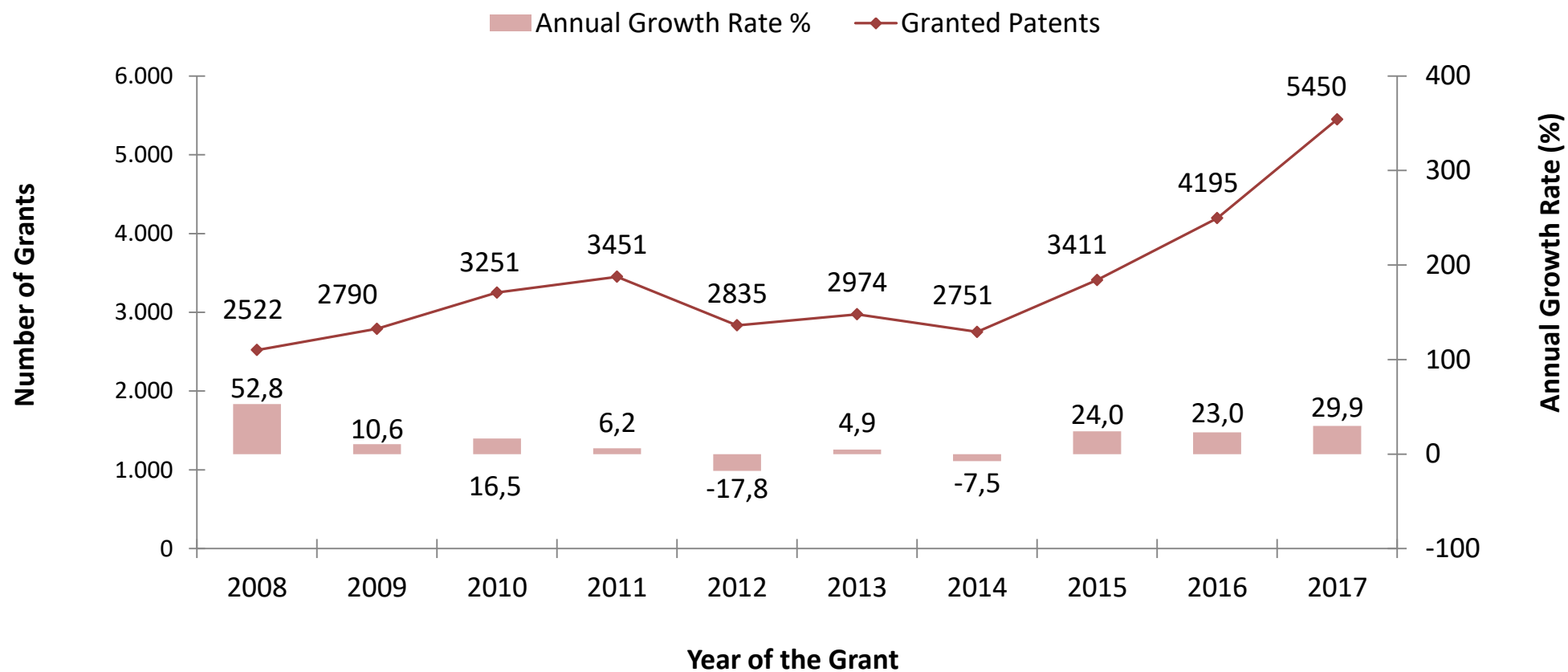
Ranking of Patent Applicants, 2017

Ranking	Name	2017	Share in the Residents (%)
1	UNIVERSIDADE ESTADUAL DE CAMPINAS	77	1,4
2	UNIVERSIDADE FEDERAL DE CAMPINA GRANDE	70	1,3
3	UNIVERSIDADE FEDERAL DE MINAS GERAIS	69	1,3
4	UNIVERSIDADE FEDERAL DA PARAÍBA	66	1,2
5	UNIVERSIDADE DE SÃO PAULO	53	1,0
6	UNIVERSIDADE FEDERAL DO CEARÁ	50	0,9
7	CNH INDUSTRIAL BRASIL	35	0,6
8	UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL	34	0,6
9	PONTIFÍCIA UNIVERSIDADE CATÓLICA-PR	31	0,6
10	UNIVERSIDADE FEDERAL DO PARANÁ	31	0,6
Top 10 Total		516	9,4
Patent Applications - Residents		5.480	100,0
Total Patent Applications - Residents and Non-residents		25.658	

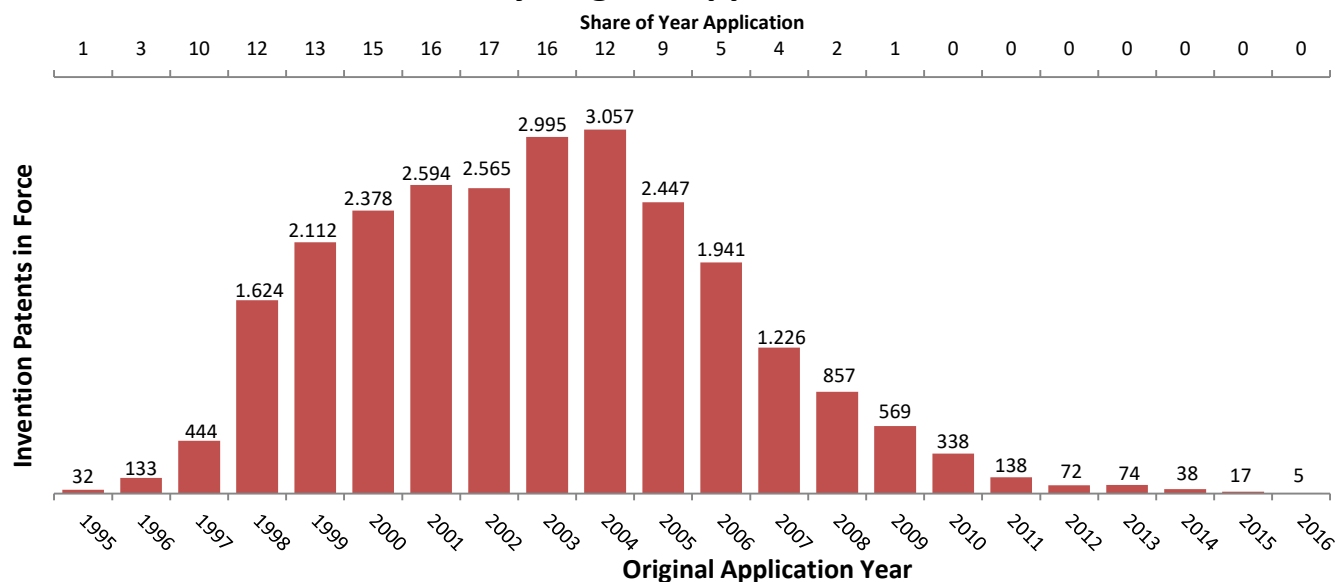
Ranking of Non-Resident Patent Applicants, 2017

Ranking	Name	2017	Share in Total Non-Residents (%)
1	QUALCOMM	672	3,3
2	DOW CHEMICAL	419	2,1
3	HALLIBURTON	357	1,8
4	HUAWEI	297	1,5
5	BASF	265	1,3
6	PHILIPS	201	1,0
7	MICROSOFT	191	0,9
8	NIPPON STEEL & SUMITOMO	170	0,8
9	BOEING	164	0,8
10	TOSHIBA	162	0,8
Top 10 Total		2.898	14,4
Patent Applications - Non Residents		20.178	100,0
Total Patent Applications - Residents and Non-Residents		25.657	

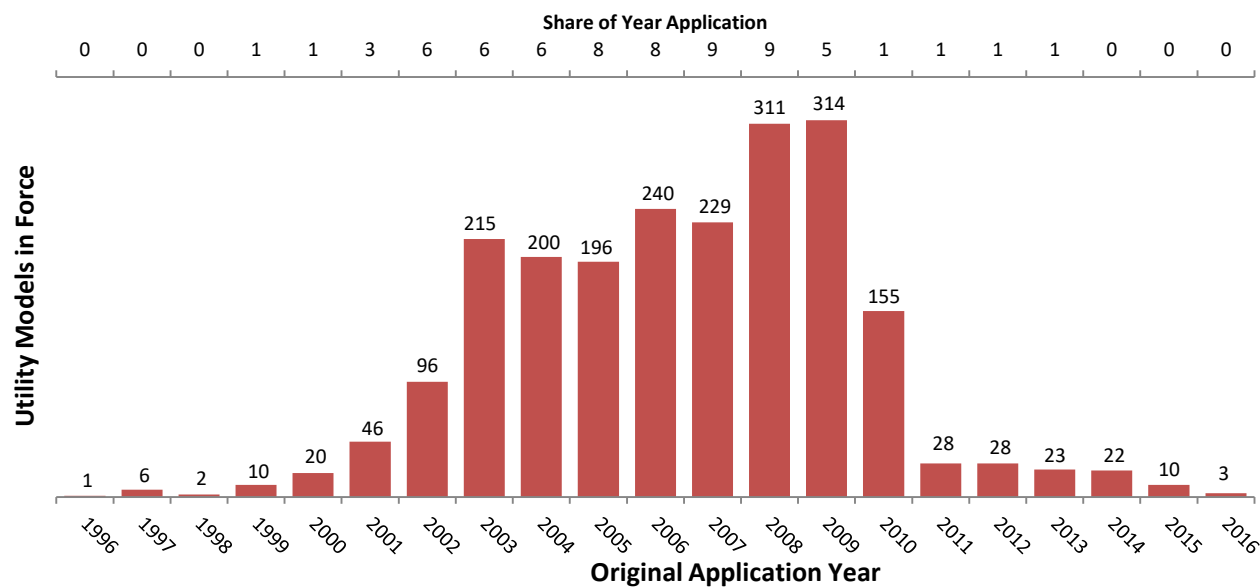
Patent Grants, 2008 - 2017



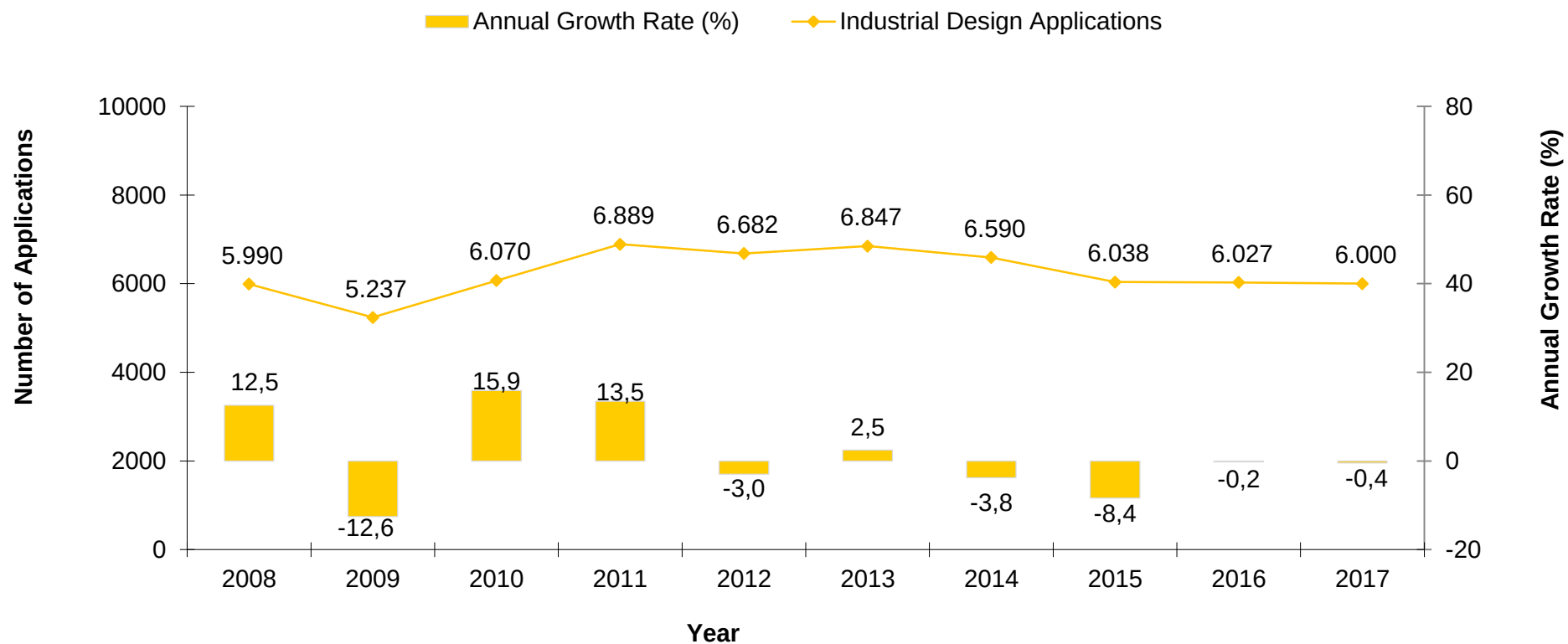
Invention Patent in Force by original application, 2017



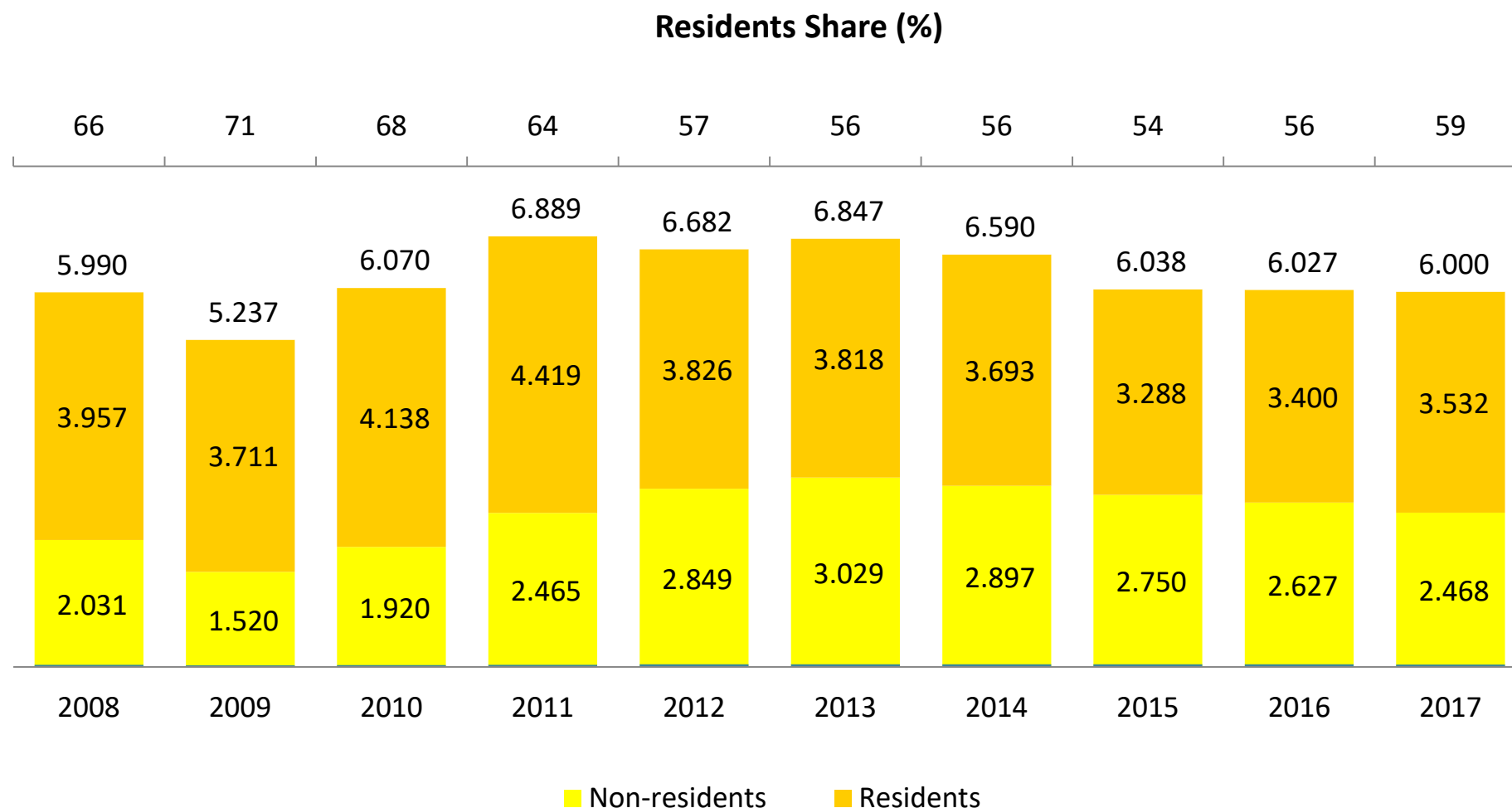
Utility Models in Force by original application, 2017



Industrial Design Applications, 2008 - 2017



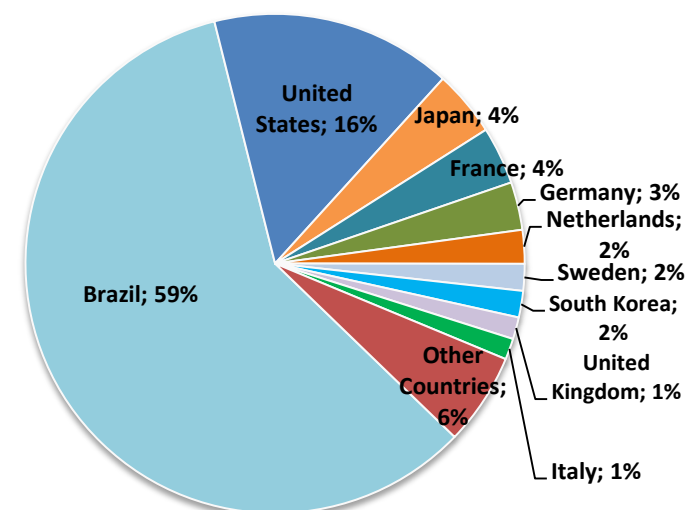
Industrial Design Applications by Residents and Non-residents, 2008 - 2017



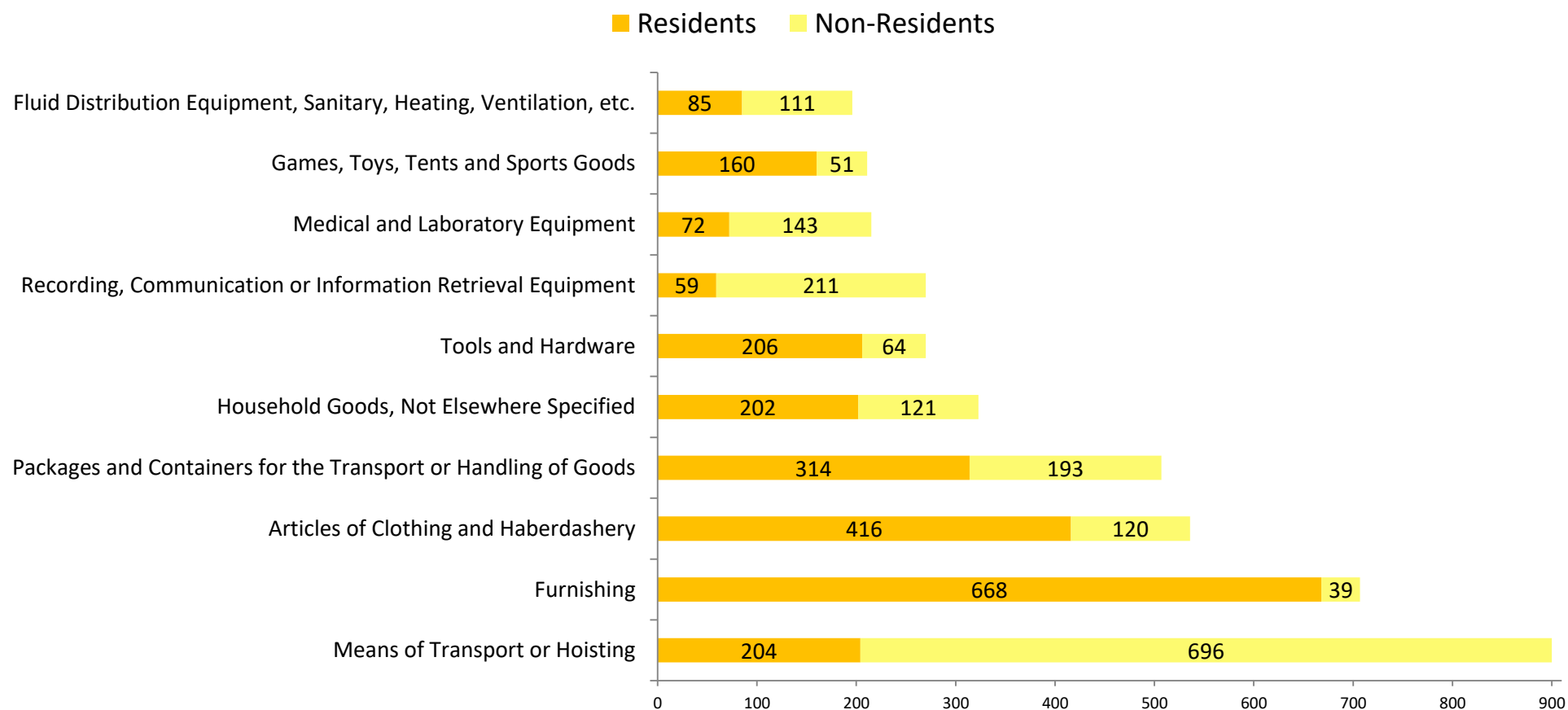
Industrial Design Applications by Country of Origin, 2017

Ranking	Country	2017	Share (%)	Δ(2017/2016)
1	UNITED STATES	939	38,0	9%
2	JAPAN	256	10,4	-11%
3	FRANCE	224	9,1	17%
4	GERMANY	186	7,5	-41%
5	NETHERLANDS	131	5,3	-8%
6	SWEDEN	104	4,2	-44%
7	SOUTH KOREA	103	4,2	-2%
8	UNITED KINGDOM	85	3,4	23%
9	ITALY	82	3,3	-18%
10	SWITZERLAND	81	3,3	-21%
	OTHER COUNTRIES	2.191	88,8	-7%
Industrial Design Applications - Non-residents		2.468	100	-6%

Industrial Design Applications (2017)



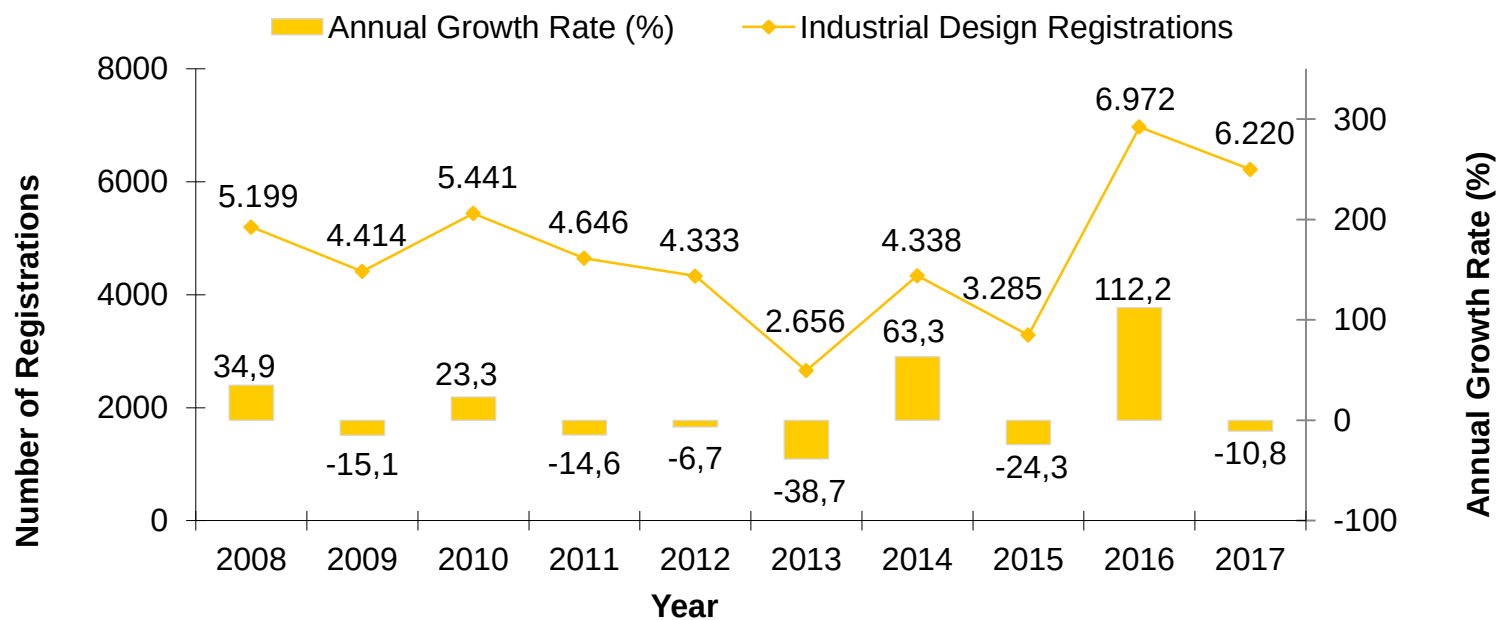
Industrial Design Applications in 2017, main Locarno classes



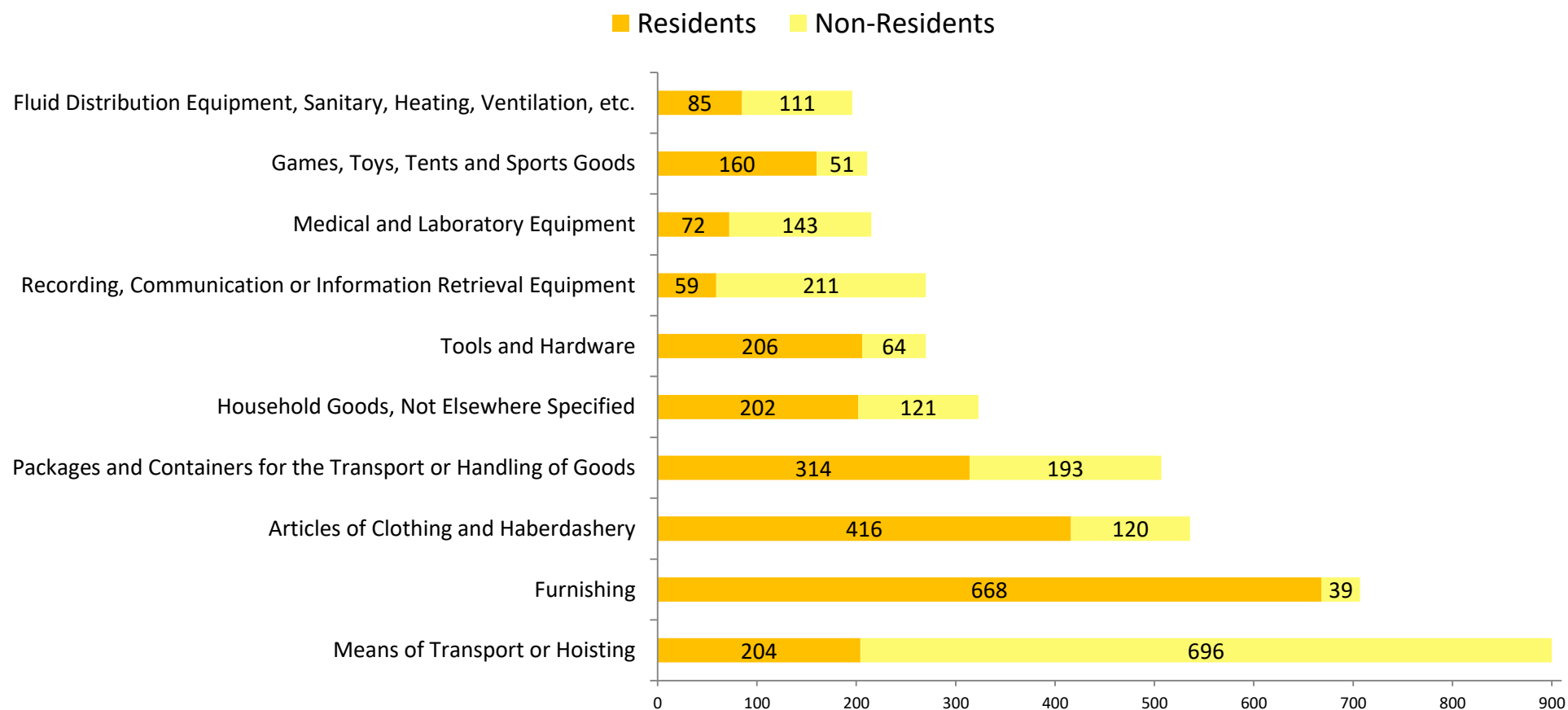
Ranking of Non-Resident Industrial Design Applicants, 2017

Ranking	Name	2017	Share in Non-Residents (%)
1	GENERAL MOTORS (US)	123	5,0
2	PEUGEOT CITROËN (FR)	89	3,6
3	HONDA (JP)	77	3,1
4	PHILIPS (NL))	74	3,0
5	FORD (US)	65	2,6
6	LG (KR)	64	2,6
7	NIKE (US)	62	2,5
8	VOLVO (SE)	57	2,3
9	3M (US)	55	2,2
10	UNILEVER (GB/NL)	50	2,0
Top 10		716	29,0
Industrial Design Applications - Non residents		2.468	100,0
Total Industrial Design Applications - Residents and Non-residents		6.000	

Industrial Design Registrations, 2008 - 2017



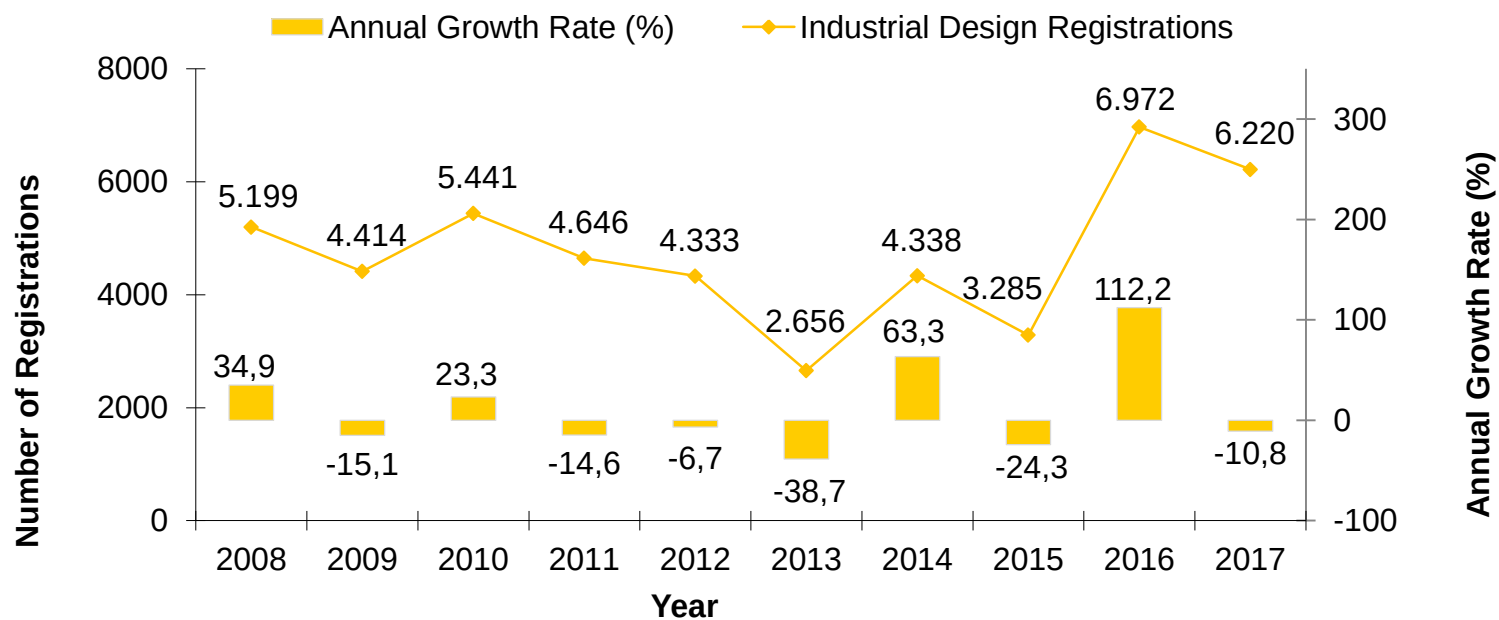
Industrial Design Applications in 2017, main Locarno classes



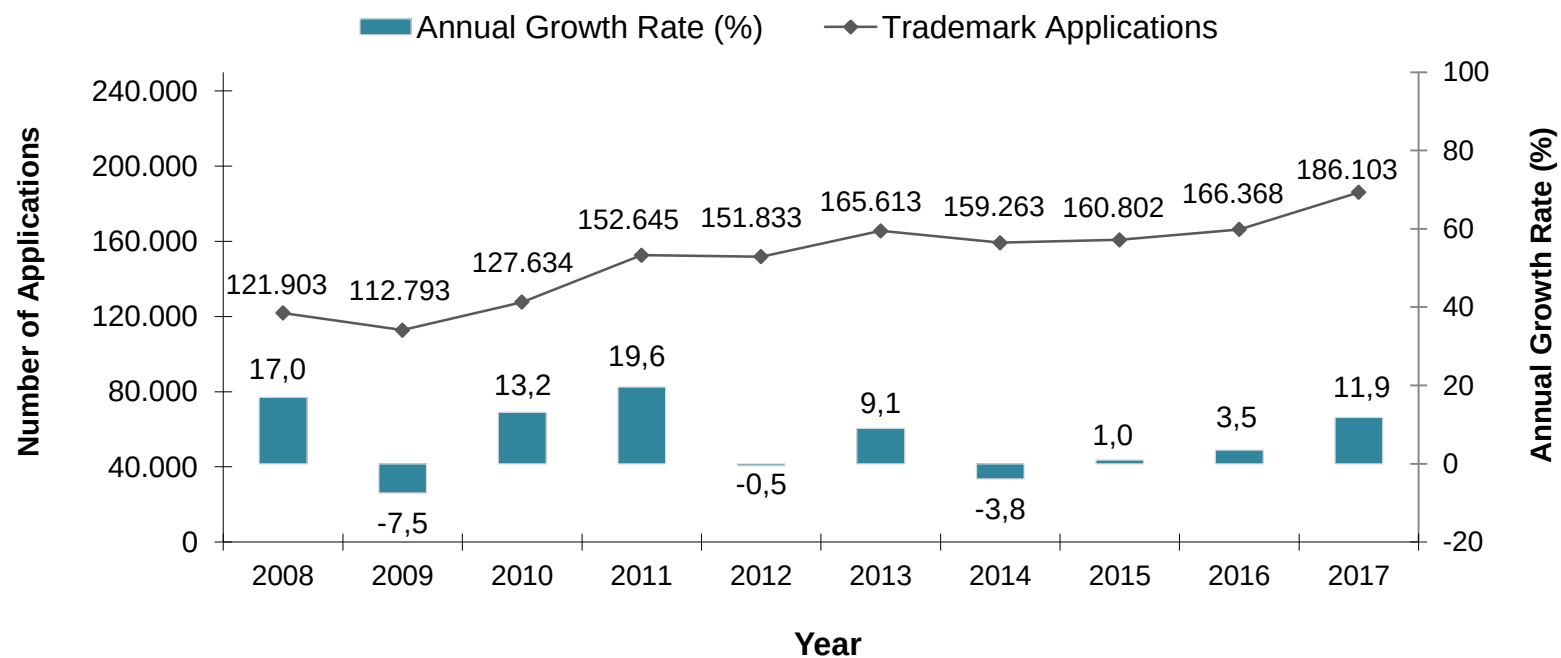
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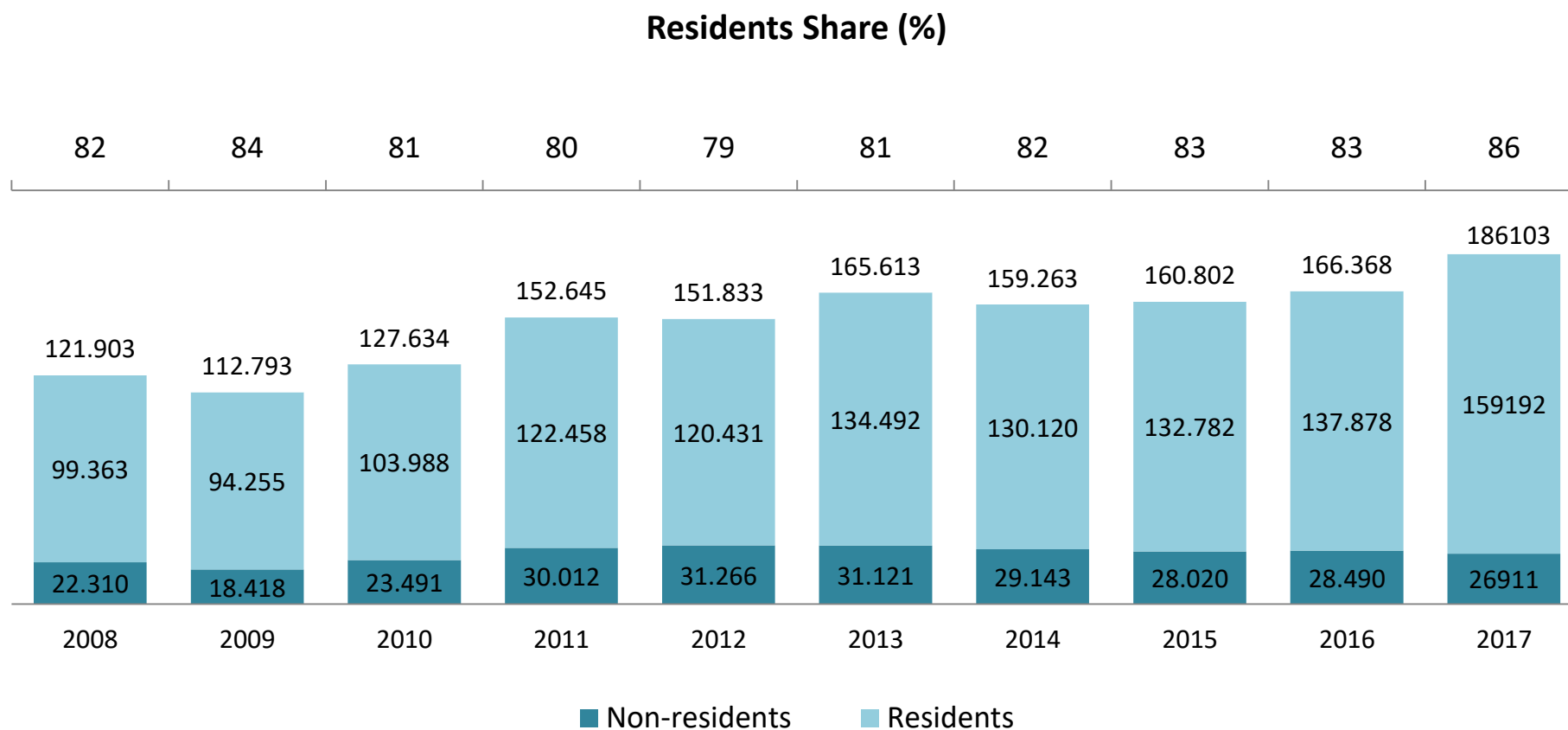
Industrial Design Registrations, 2008 - 2017



Trademark Applications, 2008 - 2017



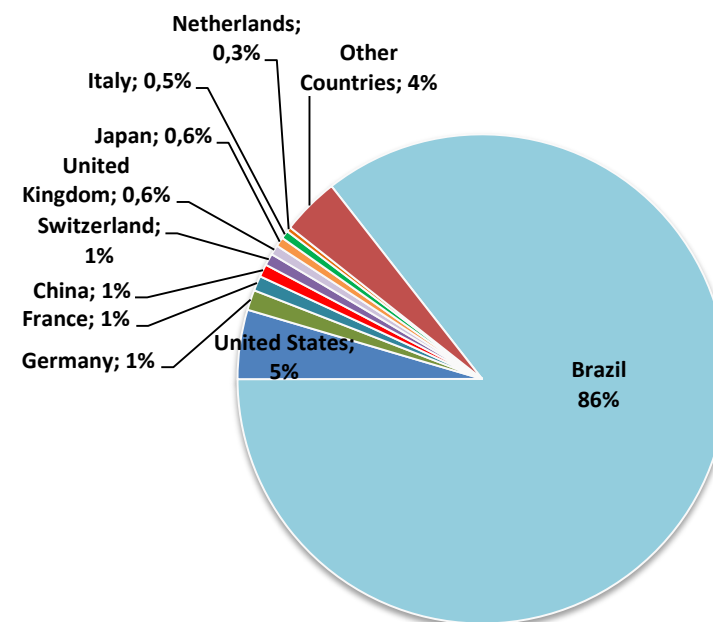
Trademark Applications by Residents and Non-residents, 2008 - 2017



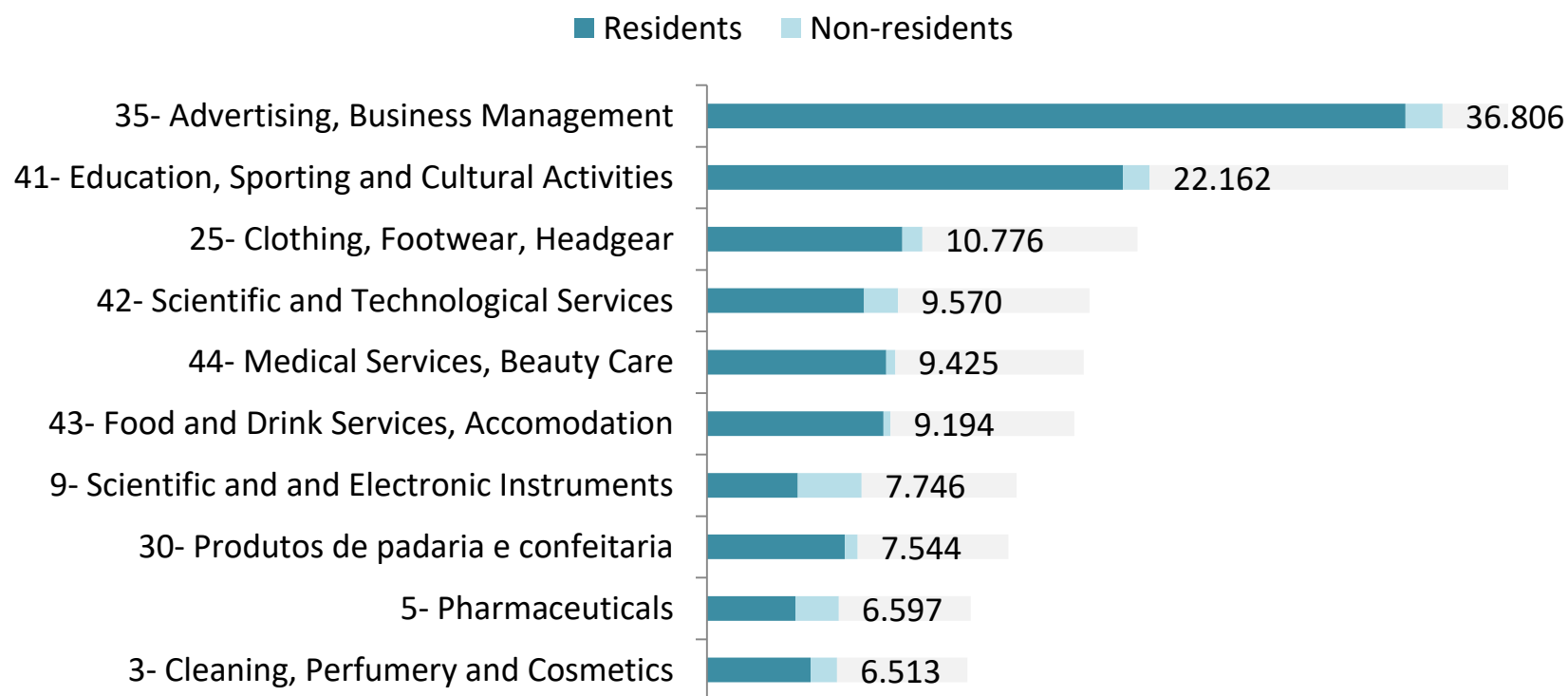
Trademark Applications by Country of Origin, 2017

Ranking	Country	2017	Share (%)	Δ(2017/2016)
1	UNITED STATES	8.528	31,7	1%
2	GERMANY	2.483	9,2	-8%
3	FRANCE	1.843	6,8	4%
4	CHINA	1.561	5,8	27%
5	SWITZERLAND	1.463	5,4	-3%
6	UNITED KINGDOM	1.206	4,5	-14%
7	JAPAN	1.144	4,3	1%
8	ITALY	1.009	3,7	5%
9	NETHERLANDS	582	2,2	-18%
10	SPAIN	547	2,0	-16%
	OTHER COUNTRIES	6.545	24,3	-18%
Trademark Applications - Non-Residents		26.911	100	-6%

Trademark Applications (2017)



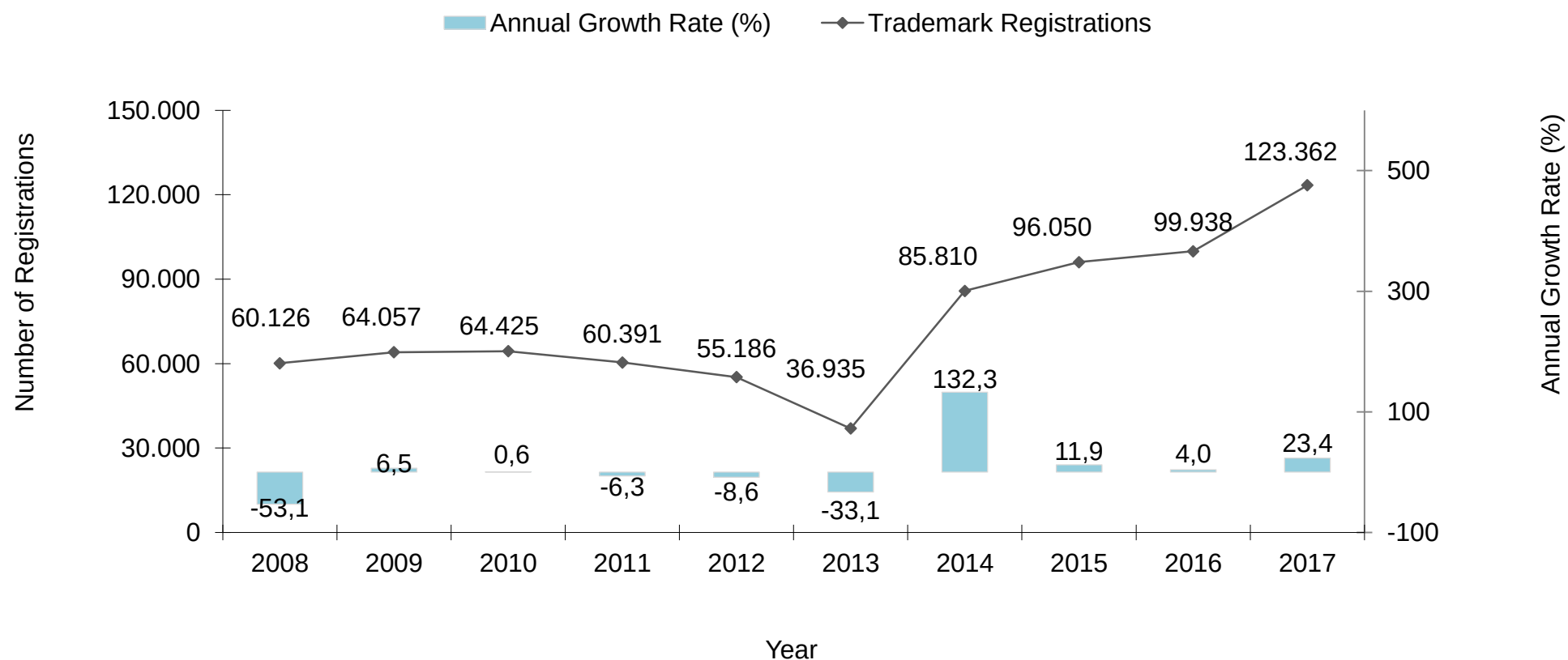
Trademark Applications in 2017, main Nice classes



Ranking of Non-Resident Trademark Applicants, 2017

Ranking	Name	2017	Share in Non-residents (%)
1	TARGET BRANDS	349	1,3
2	AMAZON TECHNOLOGIES	188	0,7
3	GRUPO BIMBO	131	0,5
4	PHILIPS	130	0,5
5	MERCK	128	0,5
6	NBA PROPERTIES	115	0,4
7	L'OREAL	114	0,4
8	SAMSUNG	112	0,4
9	JOHNSON & JOHNSON	100	0,4
10	GOOGLE	100	0,4
Top 10		1.467	5,5
Trademark Applications - Non residents		26.911	100,0
Total Trademark Applications - Residents and Non residents		186.103	

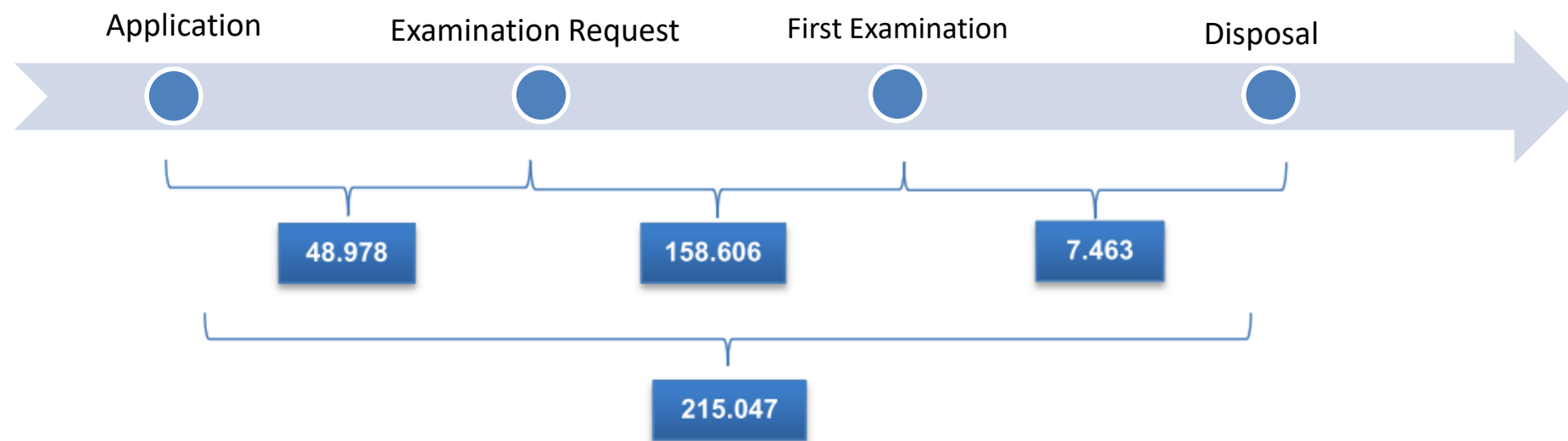
Trademark Registrations, 2008 - 2017



INPI Statistical Reports - - Management

Indicator

Pendency of Patents



- Database problems before 1997
- Payment system (PAG) unavailable before 2004
- Examination pattern at preliminary and final decisions
- Payment and examination systems are not automatically linked
- Former decision codes are different from the current ones

