

# INNOVATION IN A EUROPEAN DIGITAL SINGLE MARKET – THE ROLE OF PATENTS

Comments on Policy and Research Issues

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## Agenda

- Policy Issues
  - Standardization
  - Litigation activity and rules of engagement
  - Aggregation
  - Markets for and access to patented technologies
- Research Aspects
  - (Standardization)
  - Ownership
  - Taxation and BEPS



## Policy Issues - Patent aggregation

### Workshop

# Patent aggregation and its impact on competition and innovation policy

Initiated by the EPO Economic and Scientific Advisory Board (ESAB)

Programme

25 November 2014

European Patent Office

### Definition

Patent aggregation describes any activity *where patents that were previously owned by a number of different parties, are brought under the control of a single actor or entity*. Control essentially means the right to decide which party gets access to the patents and under what terms.



## Policy Issues - Patent aggregation

### Some results and open questions from the workshop (Official Statement by ESAB to be published soon)

#### Workshop

#### Patent aggregation and its impact on competition and innovation policy

Initiated by the EPO Economic and Scientific Advisory Board (ESAB)

Programme

25 November 2014  
European Patent Office

- **No unambiguous conclusions possible regarding social benefits and costs of aggregation activity. It depends ...**
- **Major research gaps persist ...**
  - different patent aggregation models and their impact on competition and innovation
  - when and how can aggregation of patents increase the value and/or strength of individual patent rights
  - lack of accurate and reliable statistics
  - lack of transparency of patent ownership and of reliable patent litigation data




## Research Issues – Ownership

### Early results from an ongoing project

# Patent transfer data: Confirmation of transfer of rights registration



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	EPA/EPC/OEB D-80298 München +49 89 2339-0 TX 522 656 epmu d FAX +49 89 2339-4465	<b>Europäisches Patentamt</b> Eingangs- stelle	<b>European Patent Office</b> Receiving Section	<b>Office européen des brevets</b> Section de Dépôt
	Groenendaal, Antonius Wilhelmus Maria INTERNATIONAAL OCTROOIBUREAU B.V., Prof. Holstlaan 6 5656 AA Eindhoven PAYS-BAS			
			Datum/Date 04-02-2003	
Zeichen/Ref./Réf. PHA 23.486 EP		Anmeldung Nr./Application No./Demande n°/Patent Nr./Patent No./Brevet n°. 99202415.8-1242/0978921		
Anmelde/Applicant/Demandeur/Patentinhaber/Proprietor/Titulaire BROADBAND ROYALTY CORPORATION				

## COMMUNICATION

- ] concerning the registration of a transfer (Rule 20 EPC)
- ] concerning the change of name of the applicant (Rule 92(1)(f) EPC)
- 

As requested, the records concerning the applicant of the above-mentioned European patent application have been amended to the following:

AT-BE-CH-CY-DE-DK-ES-FI-FR-GB-GR-IE-IT-LI-LU-MC-NL-PT-SE  
 BROADBAND ROYALTY CORPORATION  
 1105 North Market Street, Suite 1300  
 Wilmington, Delaware 19899/US

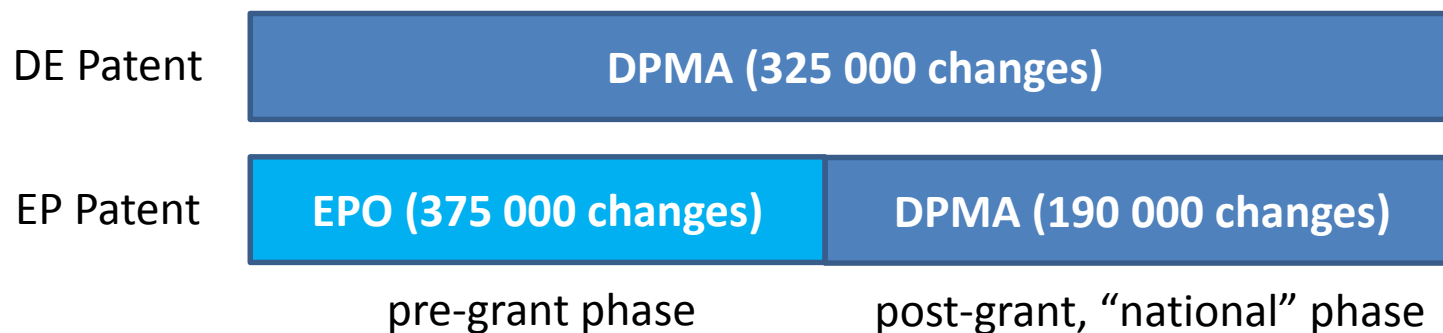
The transfer (change of name) takes effect from .16-01-03.....



# Patent transfer data: Scope of data collection

Data include transfers of German (DE) and European bundle patents (EP) 1981-2013

- Sample definition:
  - Patents with „**change in ownership information**“ as legal event in DPMA and EPO data
  - All legal events registered between 1981 and September 2013
  - Identification of ca **700 000 patents** with a change in ownership
  - Up to 9 changes per patent: ca **890 000 legal events** in total
  - Excluded:
    - Patents with application date < 1981
    - Patents with co-ownership





# Patent transfer data: Variables and classification

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Data include information on patent holders, but no details on type of ownership change

- Information on patent holder (former and current):
  - Name, City, ZIP code, Country
- Date of change in ownership information
- **Caveat:** no (reliable) classification whether change involves transfer or corrections of names and/or addresses
- Own identification through several methods:
  - String matching, linkage to external business data, patent holder sector identification
- Taxonomy of transfers:
  - Spatial distance
    - **Local:** same city
    - **National:** same country
    - **International:** different country
  - Relational context
    - Dependent: intra-group
    - (Dis-)integrative: M&A, spinoffs, JV, etc.
    - Independent: arm's length transaction

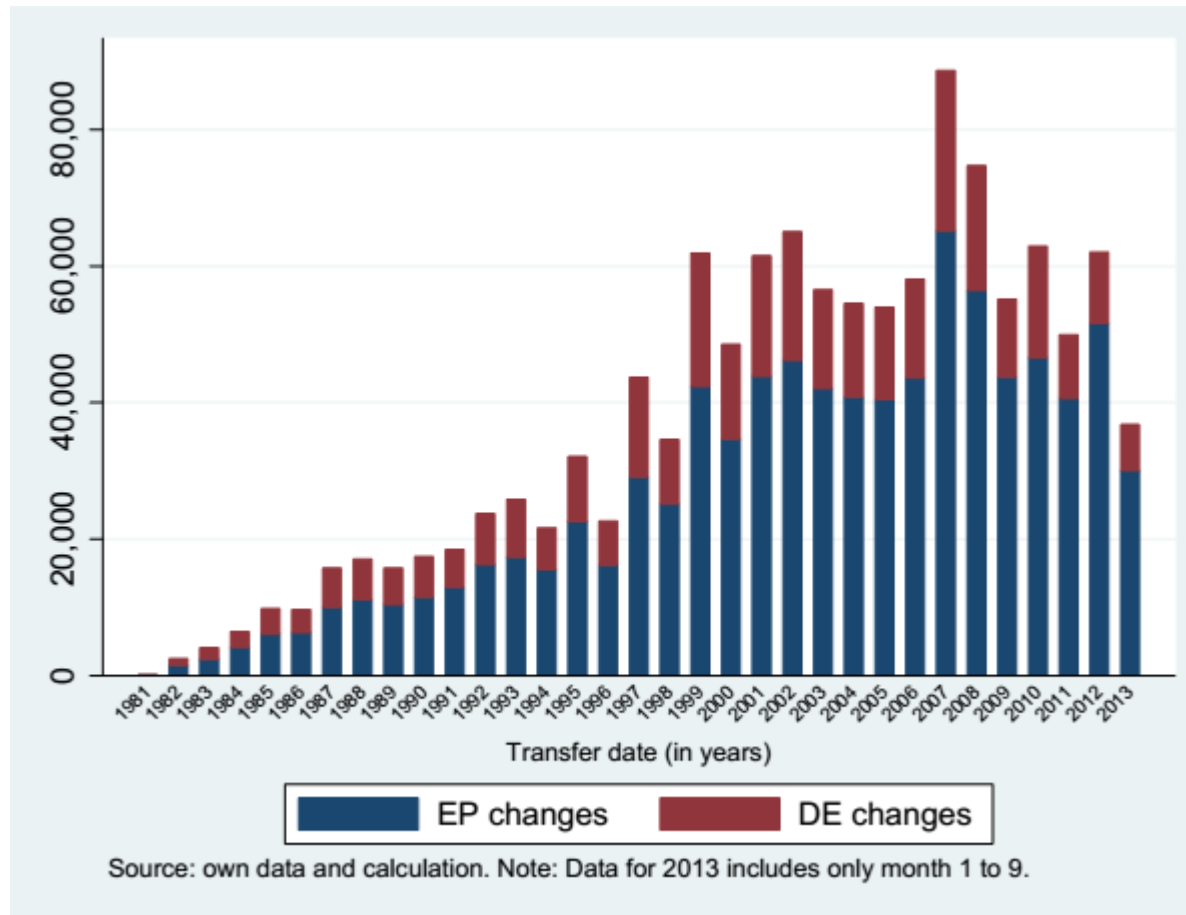


# Patent transfers data: Overview



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## The event “Change in ownership information” over time

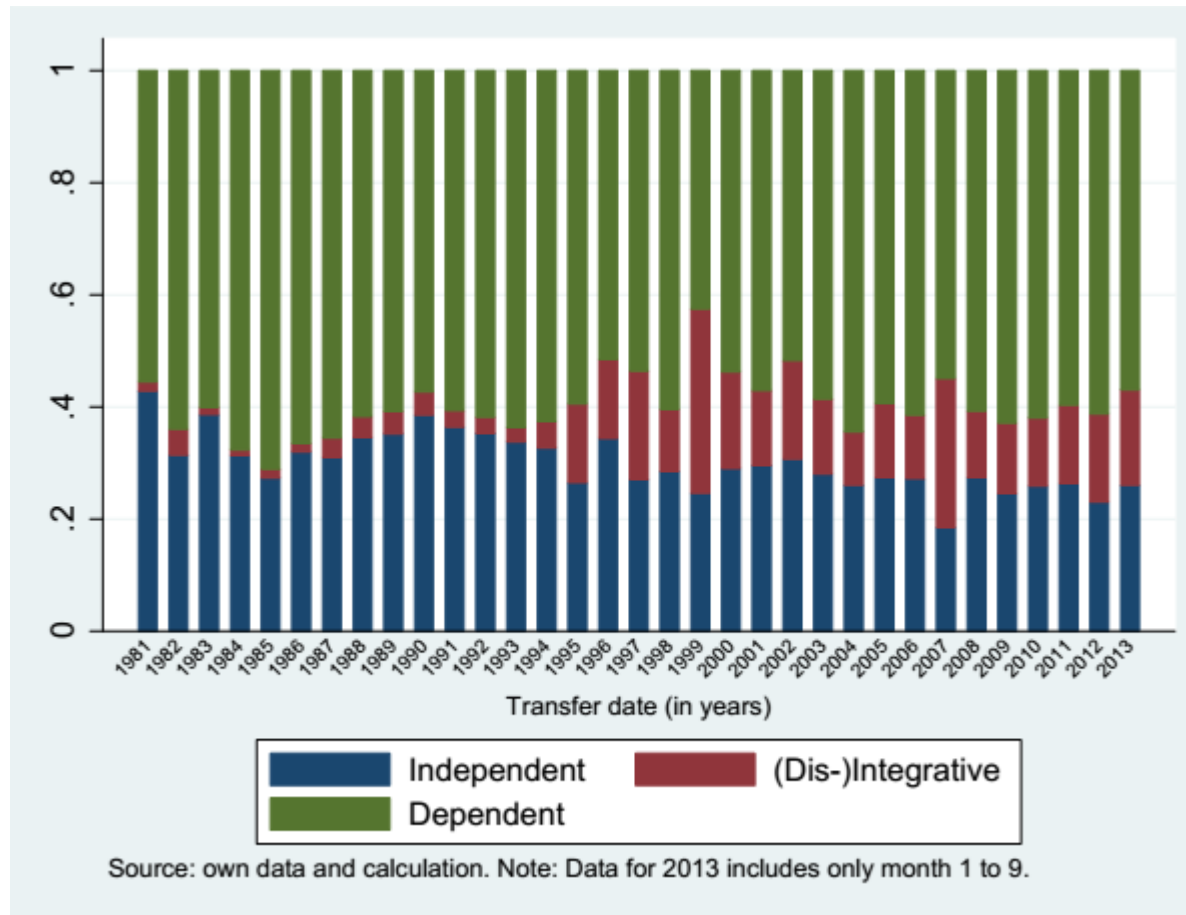


# Patent transfers data: Overview



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## Distribution of transfer types (regarding relational context) over time

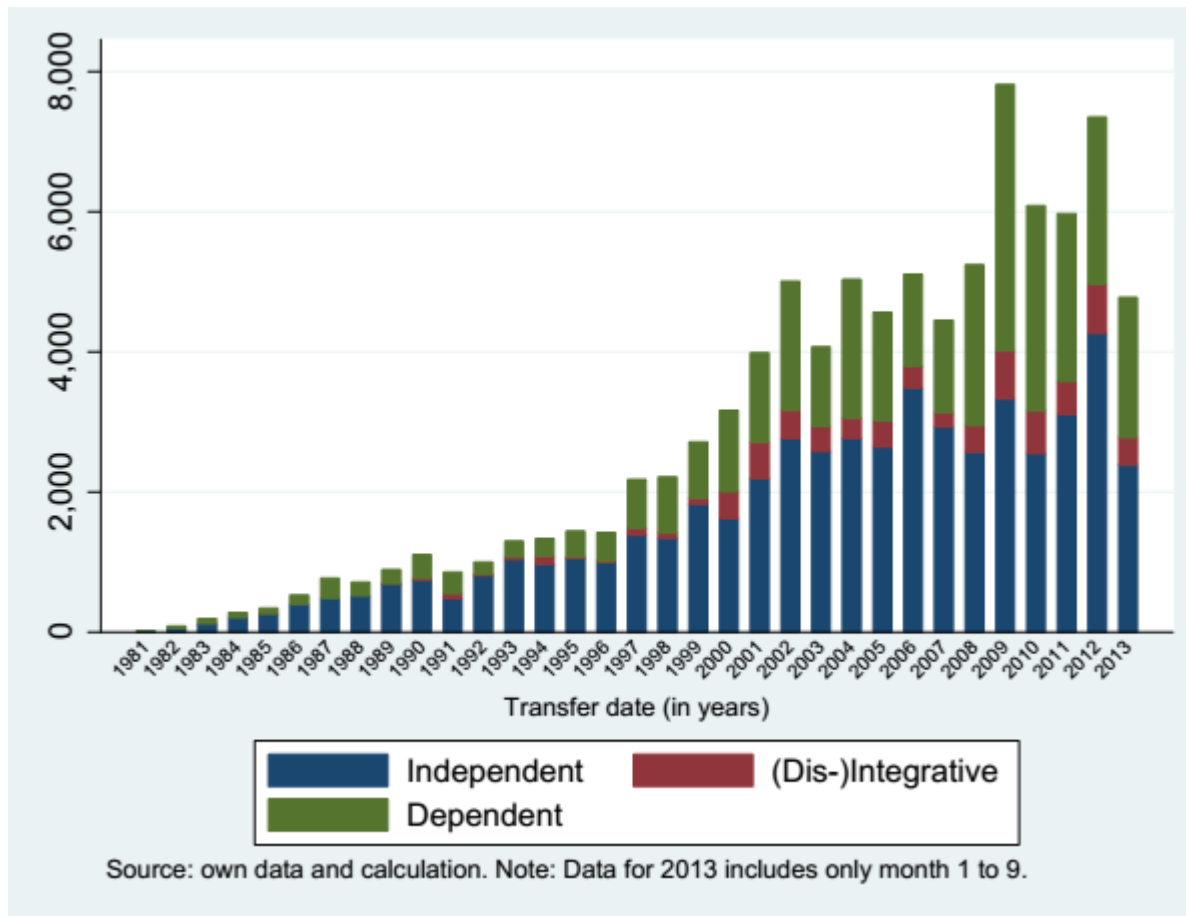


# Cross-country patent transfers



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## Cross-country transfers over time by relational context



## Cross-country transfers

Number of transfers	Country of old patent holder	Country of new patent holder
8613	GERMANY	UNITED STATES
4580	GERMANY	SWITZERLAND
3140	UNITED KINGDOM	UNITED STATES
3068	UNITED STATES	GERMANY
2908	SWITZERLAND	GERMANY
2838	UNITED STATES	NETHERLANDS
1974	UNITED STATES	SWITZERLAND
1897	GERMANY	NETHERLANDS
1333	UNITED STATES	JAPAN
1252	GERMANY	FRANCE
1252	UNITED STATES	UNITED KINGDOM
1212	CANADA	UNITED STATES
1211	GERMANY	AUSTRIA
1165	NETHERLANDS	UNITED STATES
1160	FRANCE	UNITED STATES
1140	UNITED STATES	FRANCE
1113	SWITZERLAND	FRANCE
1101	UNITED STATES	CAYMAN ISLANDS
1055	UNITED STATES	SINGAPORE
980	GERMANY	UNITED KINGDOM

# Cross-country patent transfers



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## Cross-country transfers (intra-group and M&A only)

Number of transfers	Country of old patent holder	Country of new patent holder
4086	GERMANY	UNITED STATES
2028	UNITED STATES	NETHERLANDS
1958	GERMANY	SWITZERLAND
1459	UNITED STATES	GERMANY
1416	SWITZERLAND	GERMANY
1207	UNITED KINGDOM	UNITED STATES
1104	GERMANY	NETHERLANDS
1032	UNITED STATES	SWITZERLAND
1015	UNITED STATES	CAYMAN ISLANDS
709	GERMANY	FRANCE
703	FRANCE	SWITZERLAND
666	UNITED STATES	FRANCE
619	UNITED STATES	UNITED KINGDOM
614	UNITED STATES	JAPAN
609	UNITED STATES	BARBADOS
478	SWITZERLAND	FRANCE
466	CANADA	UNITED STATES
435	SWITZERLAND	IRELAND
423	GERMANY	AUSTRIA
416	NETHERLANDS	SWITZERLAND

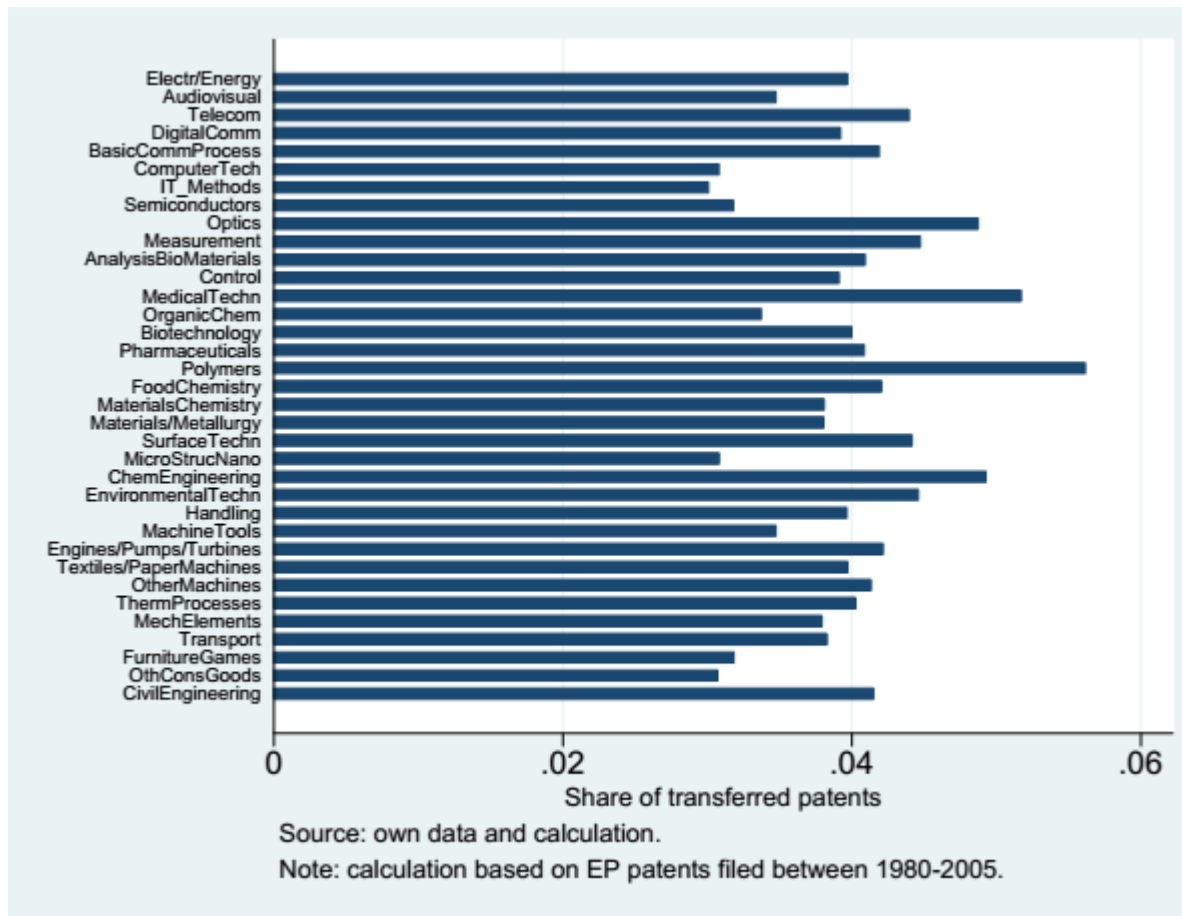
# Patent transfers

## Technology areas



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### Transfers (arm's length) by technology areas



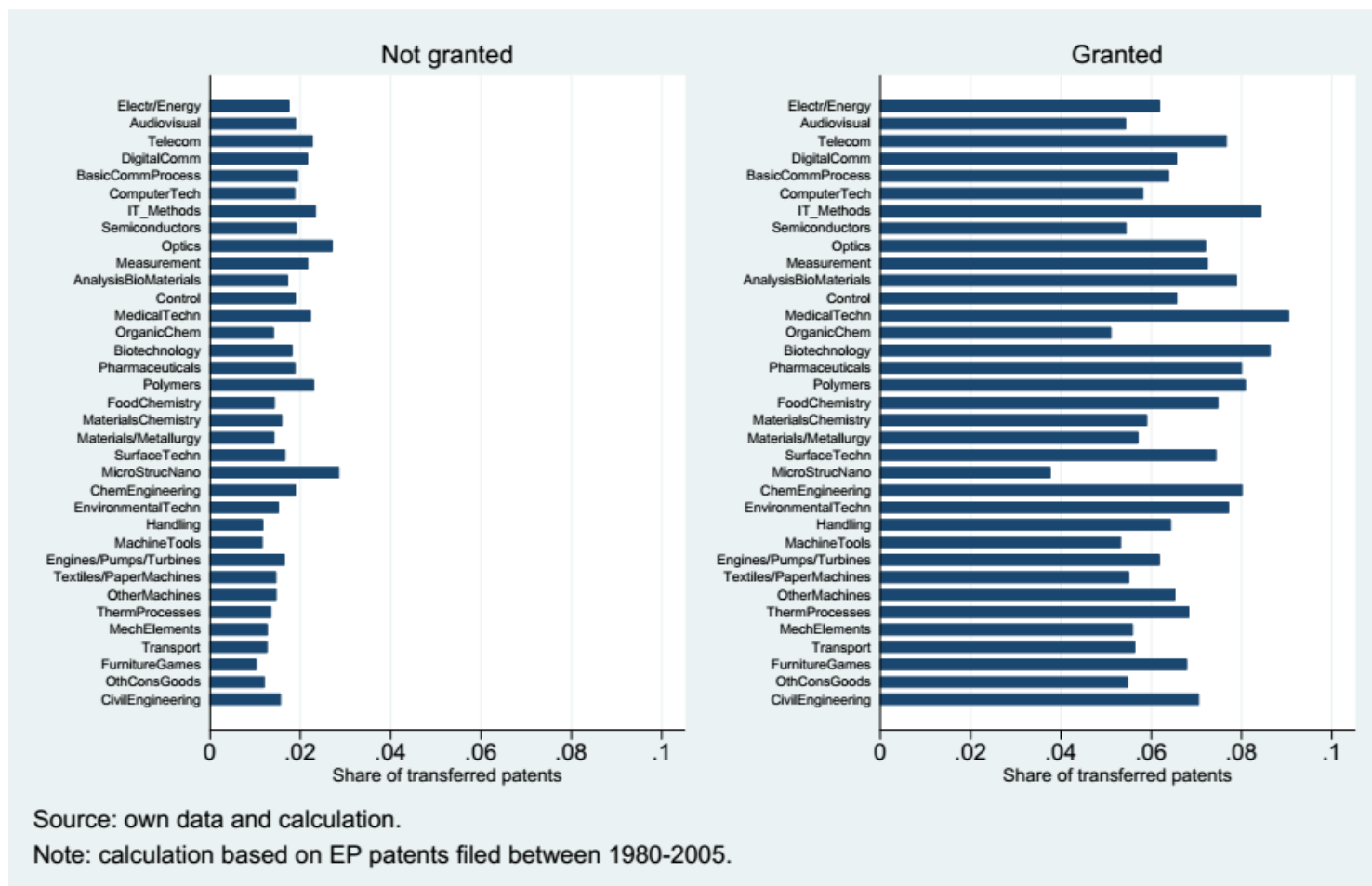
# Patent transfers

## Technology areas



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### Transfers (independent) by technology areas and by grant of patent



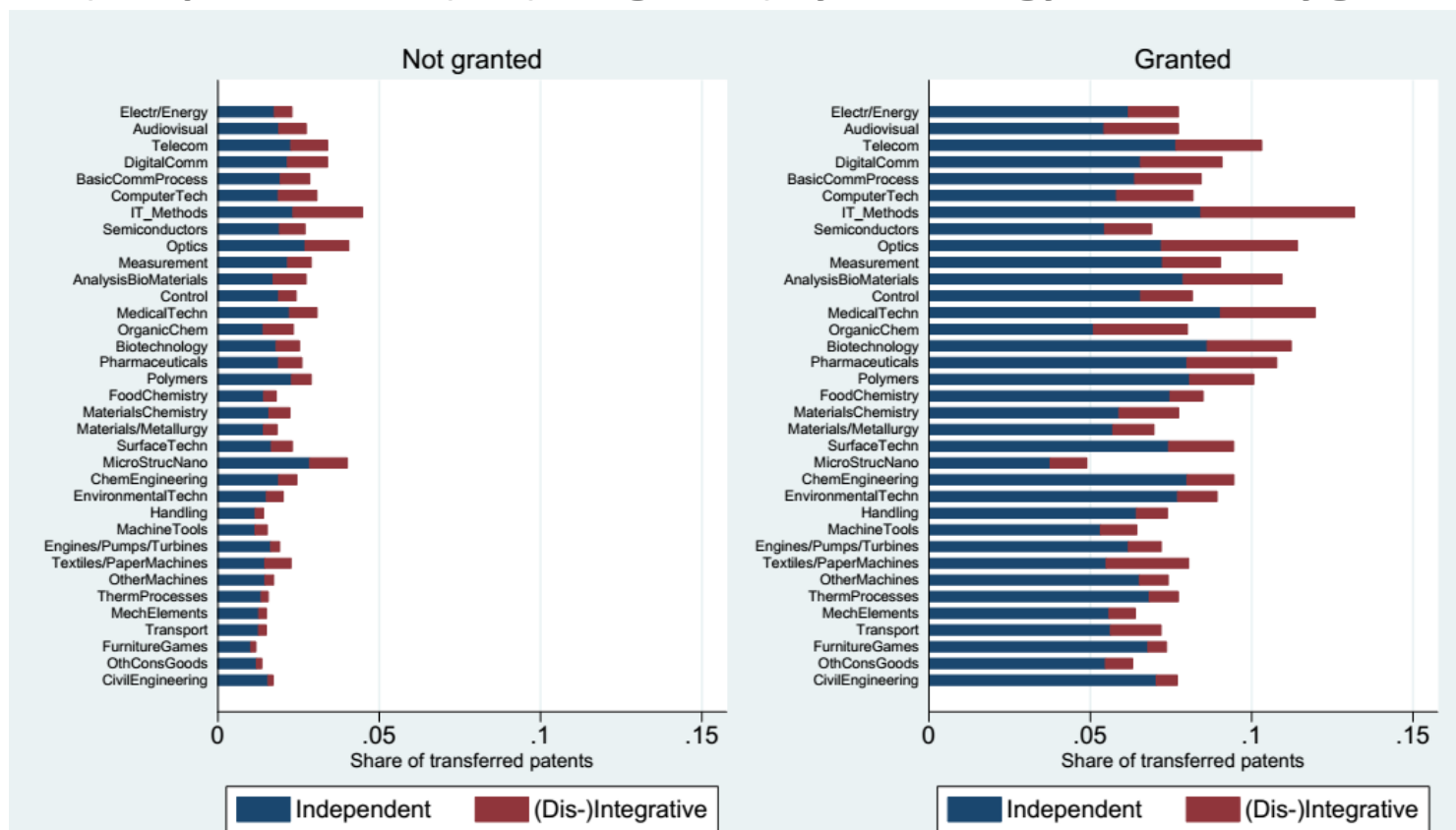
# Patent transfers

## Technology areas



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### Transfers (independent and (dis-) integrative) by technology areas and by grant of patent



Source: own data and calculation.

Note: calculation based on EP patents filed between 1980-2005.