

Safer-by-design and Financing: An Exploratory Approach of Private Financing of Nanotechnological Start-ups

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*« This work has been carried out in the framework of the Labex SERENADE (ANR-11-LABX-0064) and of the A*MIDEX project (ANR-11-IDEX-0001-02), funded by the «Investissements d’Avenir» French Government program managed by the French National Research Agency (ANR) »*

Our research perspective

Our aims

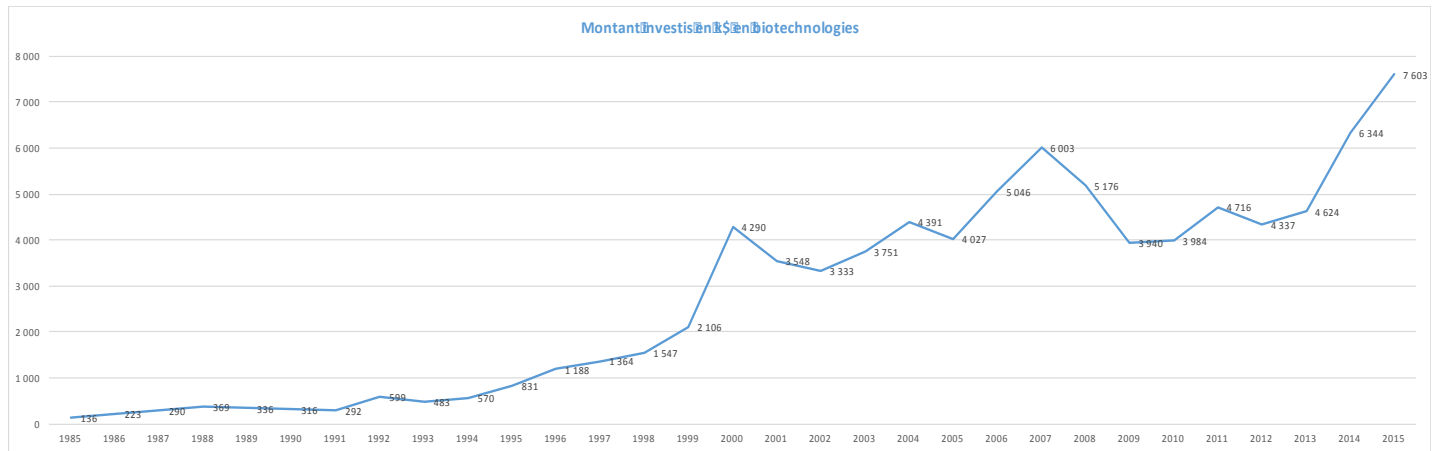
We want to better understand the private-financing of nanotechnological start-ups in a global perspective

Why?

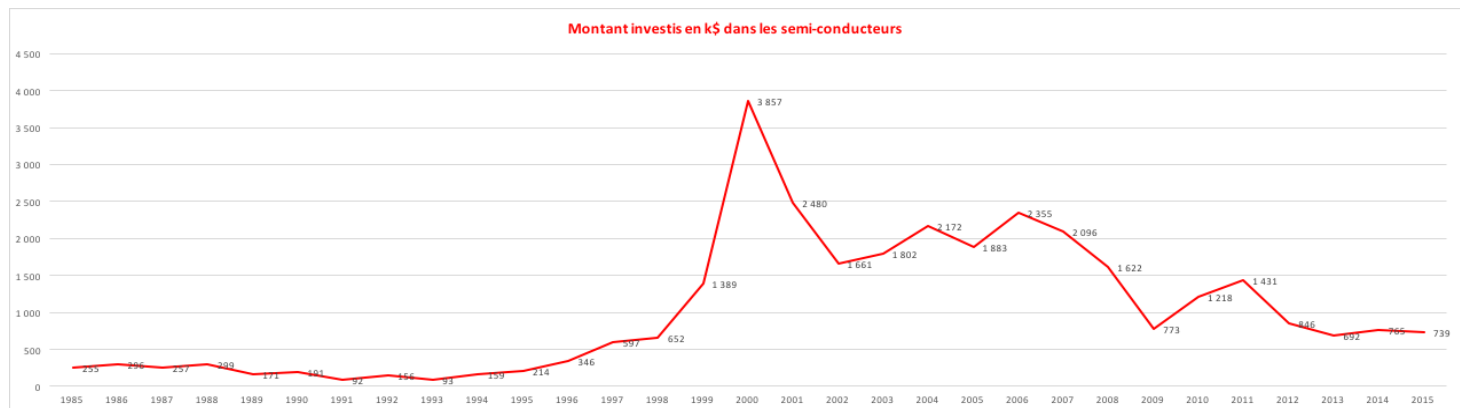
- No academic papers about nanotechs financing (private-equity)
- No professional understanding of this phenomenon (investors associations: AFIC, EVCA, NVCA)
- And because of the nanotechs start-ups financing trajectory is unknown :

Our research perspective : trajectory of the nano start-ups financing

Financial trajectory in the biotechs in USA 1985-2015



Financial trajectory in the semiconductor industry in USA 1985-2015



authors and NVCA (2016)

Methodology

No previous works

- I. No existing database
- II. No research project (to our knowledge)
- III. No official classification for « nano »

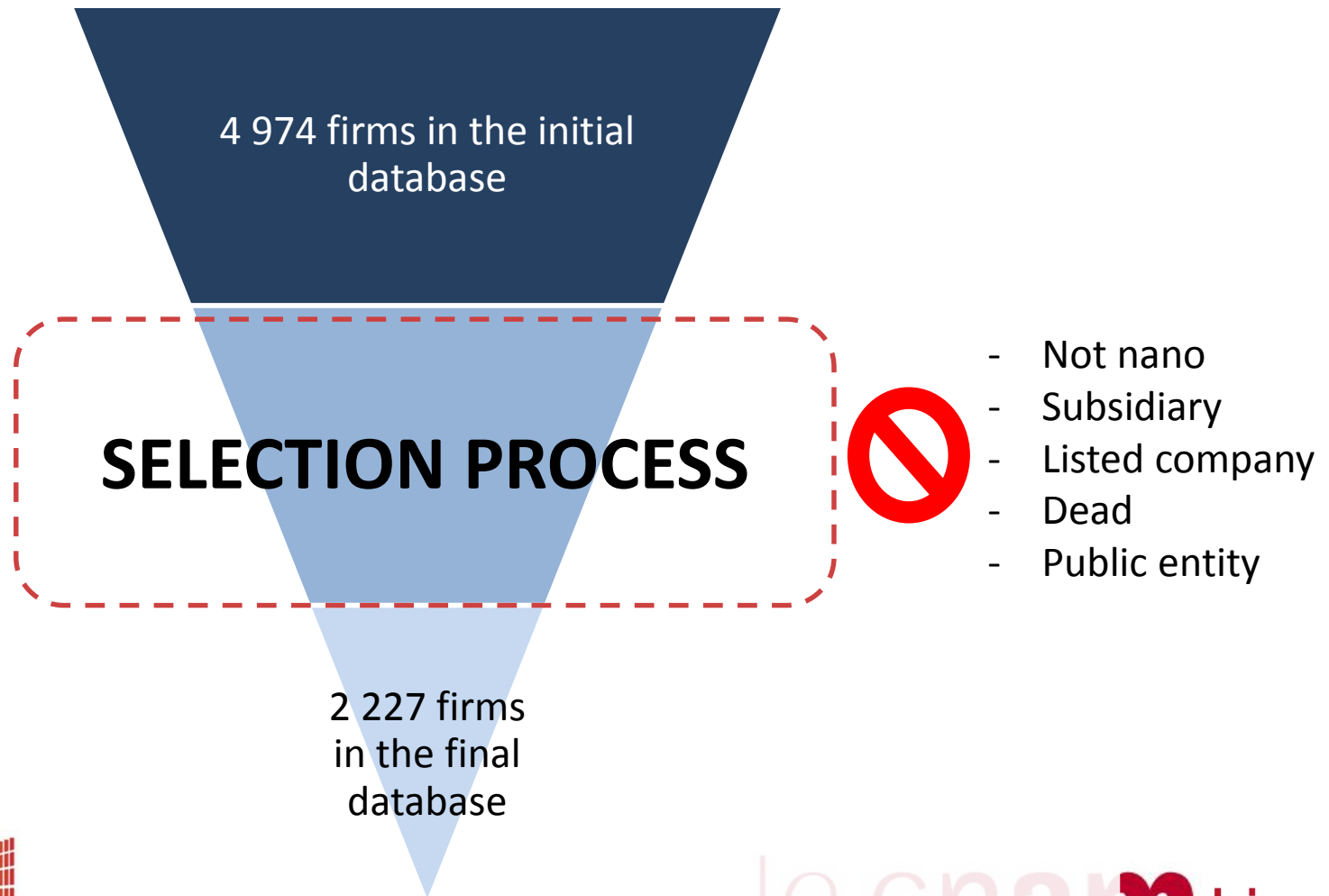
Creation of a complete and worldwide database

- I. Finding nano start-ups ([nanotech-now](#), [nanowerk](#), [nanoorbit](#), [angelList](#), [azonano](#), [planetnano](#), etc.)
- II. Selection process : listed companies, no nano industry, subsidiaries, dead firms, public entities, ...

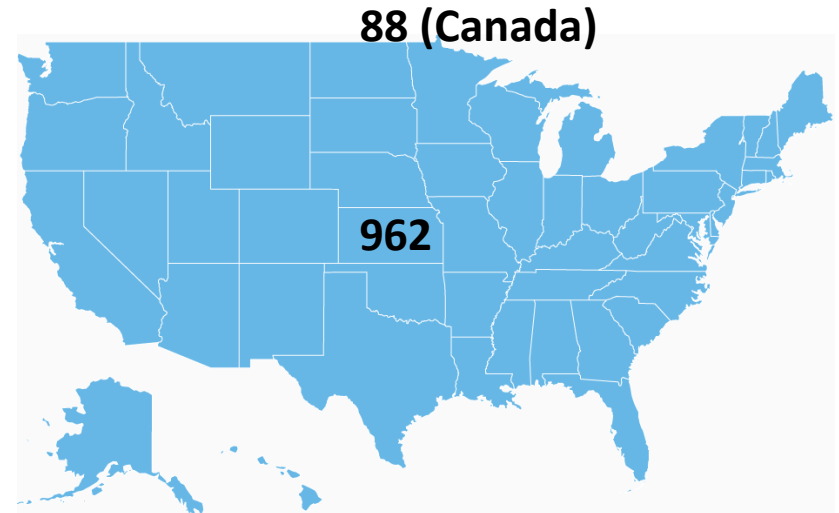
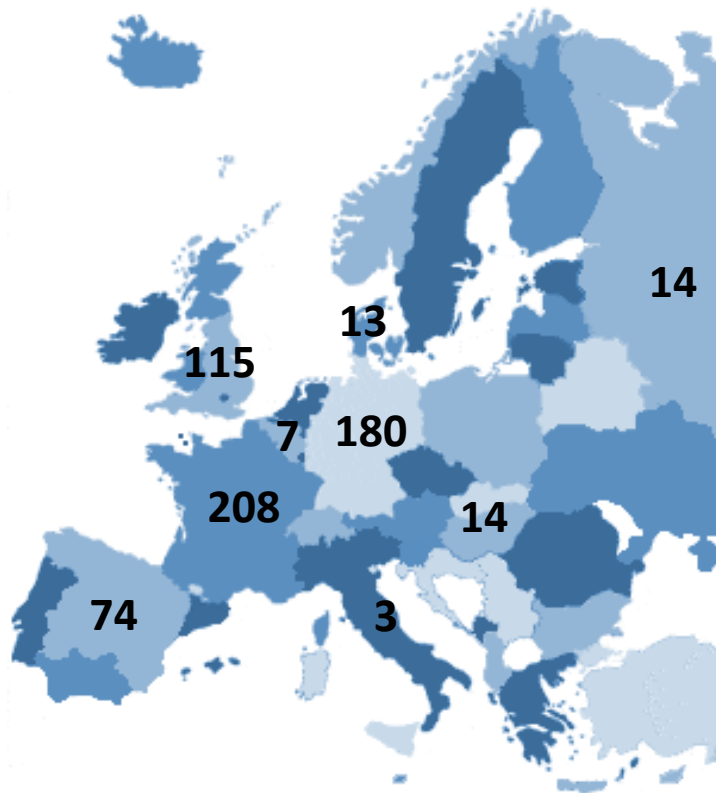
Get data for these firms

- I. Financial database (26 items and variables)

Our preliminary results



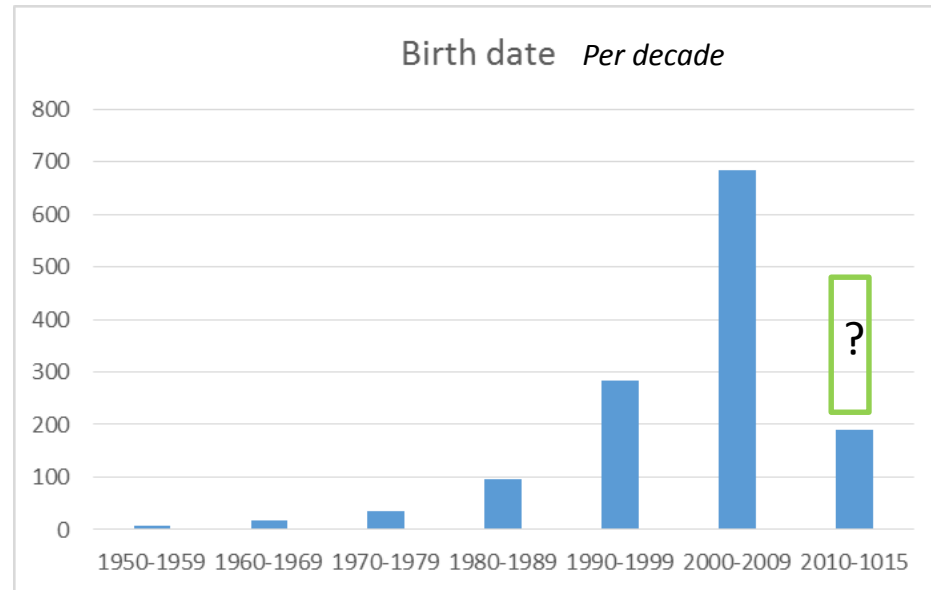
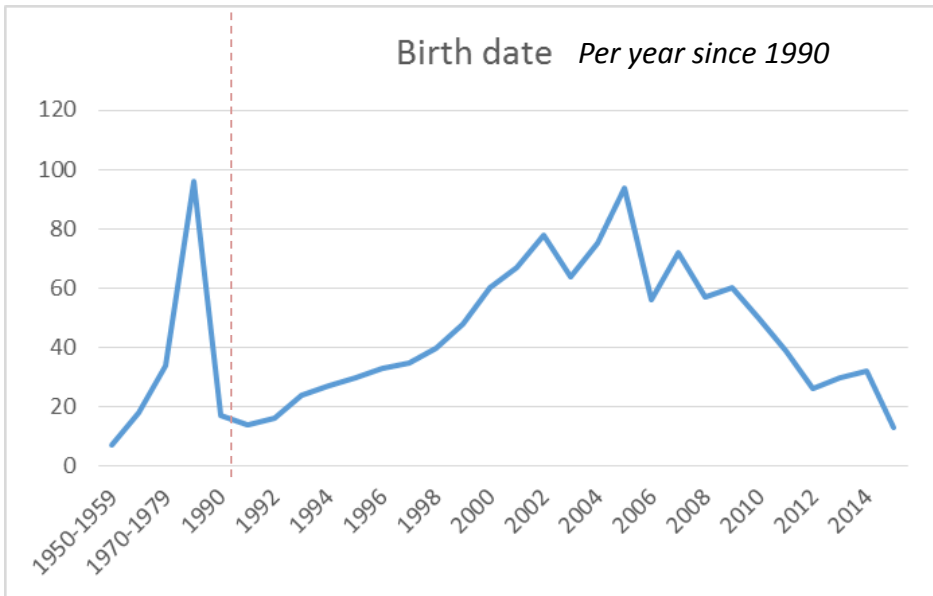
Our preliminary results



Main other countries :

- China : 46
- Australia : 44
- South Korea : 14
- Singapore : 12
- Taiwan : 11

Our preliminary results



(on 59% of the database)

Our preliminary results

Qualitative results



On a small sample (n=341)

Venture Capital funds		
Yes	99	29%
Unknow	181	53,1%
No	61	17,9%
TOTAL	341	

Some Venture Capital funds :



DW Healthcare Partners



Our preliminary results

Qualitative results



On a small sample (n=341)

Corporate Venture

Yes	39	11,4%
n.d	198	58,1%
No	104	30,5%
TOTAL	341	

Venture Capital + Corporate Venture

Yes	29	8,5%
n.d	259	76%
No	53	15,5%
TOTAL	341	

Some Corporate Venture Capital funds :



Thank you for your attention

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Variables sur 7 périodes (2008-2014) (*en cours de traitement*)

Identification de l'entreprise

- Nom de l'entreprise
- Statut : indépendante, filiale, cotée, faillite / dissolution
- Localisation : Pays, région
- Date de création
- Code NACE (primaire)
- Code NAICS (primaire)
- Secteur

Performance économique et états financiers

- Chiffres d'affaires
- Résultat d'exploitation (EBIT)
- Résultat net (Net revenu)
- Total capitaux propres (Shareholders Funds)
- Capital social (capital)
- Dettes financières à LT et dettes à CT (Total financial debt (LT) + loans (CT))
- Nombre d'employés

Actionnariat

- Nombre d'actionnaires
- Venture Capital
- Corporate Venture
- Fonds publics (Full public entity, university...)
- Family offices et autres
- Personnes privées (management, staff, BA)
- Répartition du capital