



Groupe d'Etudes de Neuro-Urologie de Langue Française



# Les robots disponibles en 2023

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# Depuis 1999 Intuitive est l'acteur principal

- Evolution constante depuis 25 ans



da Vinci Standard  
1999



Da Vinci S-HD  
2006



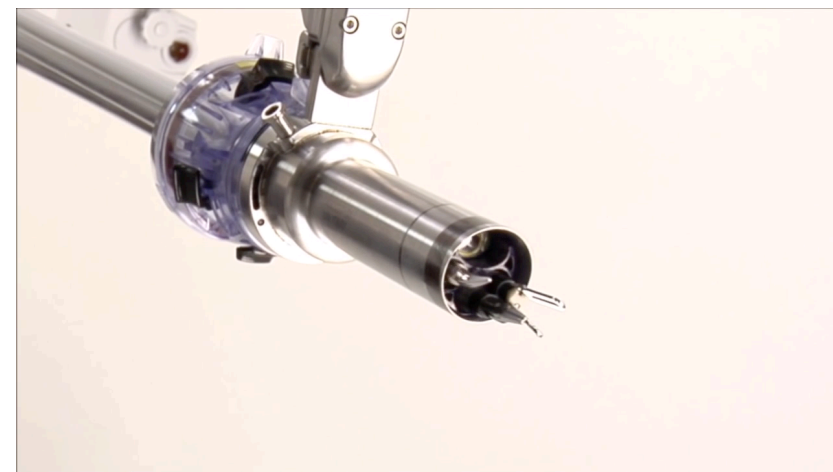
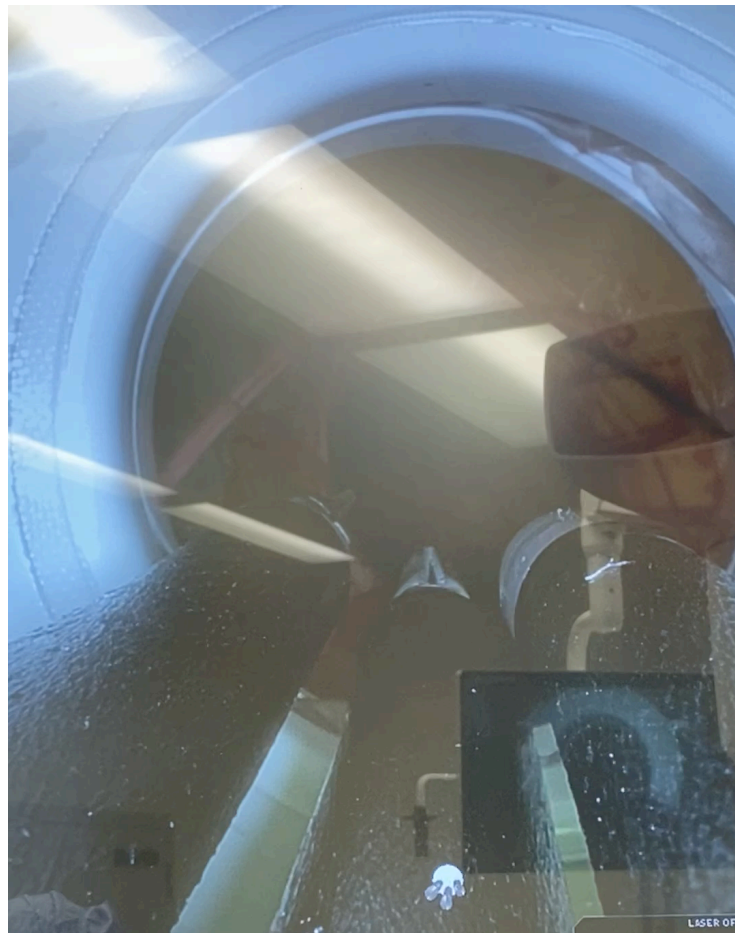
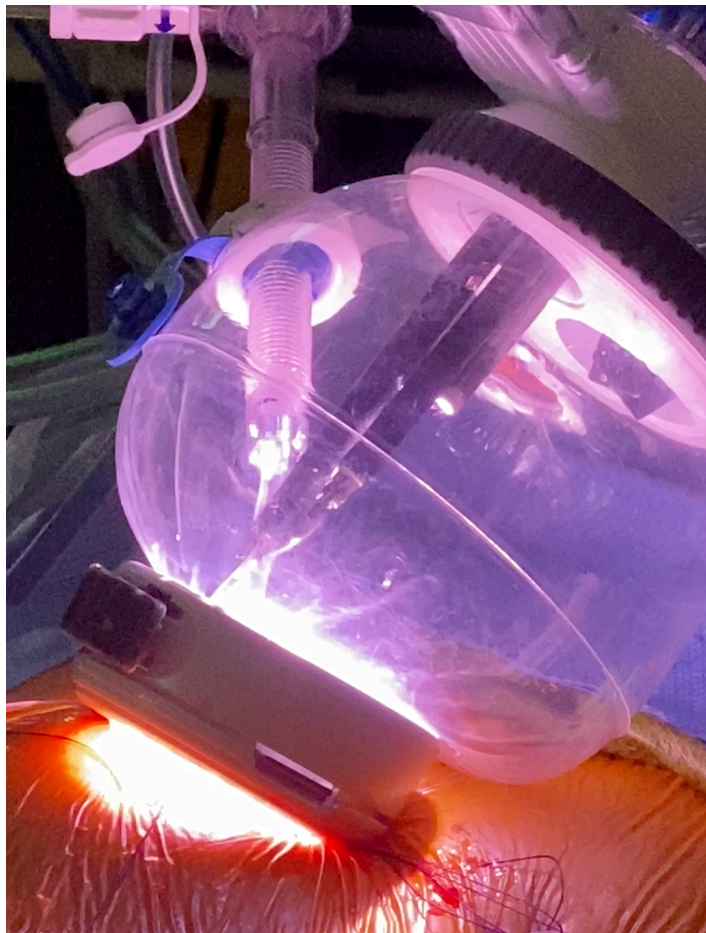
da Vinci Si  
2009



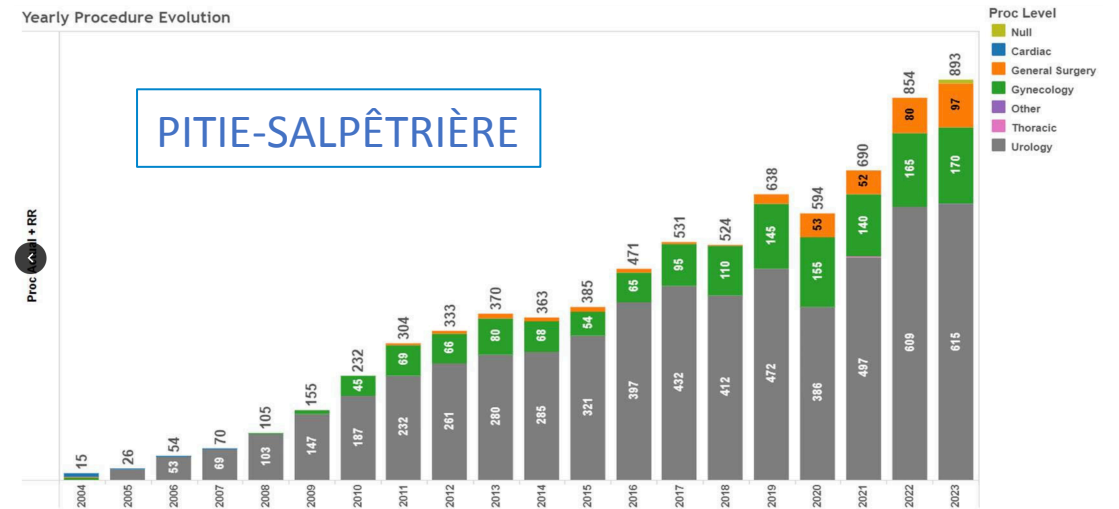
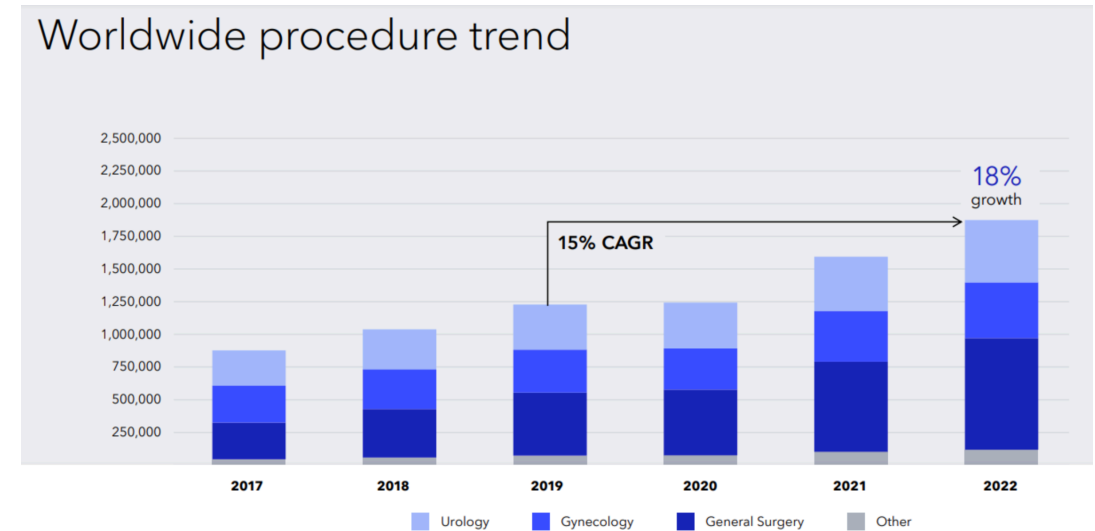
da Vinci Xi  
2014



# Dernier né: da Vinci SP



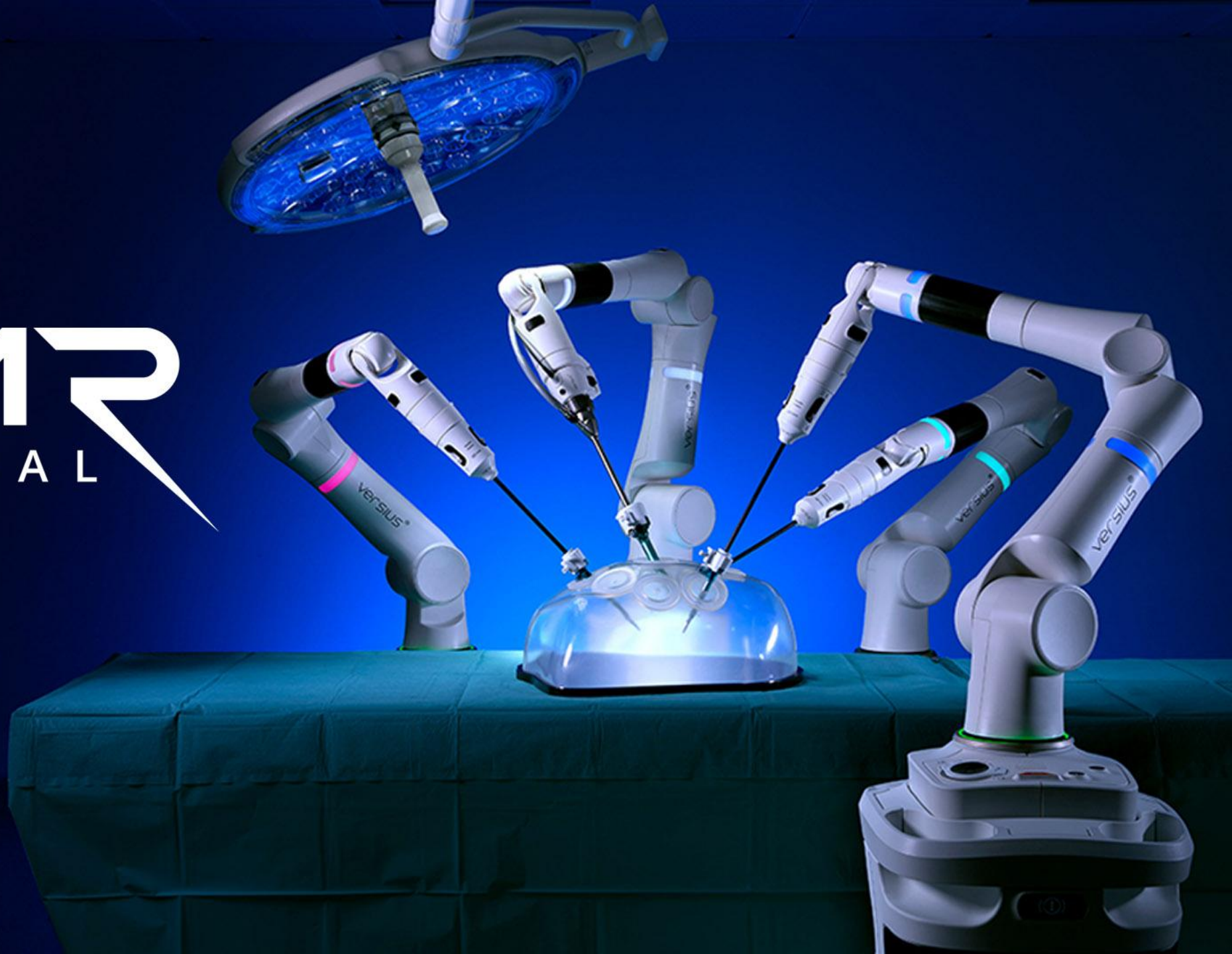
- 69 Pays utilisateurs de robots
- 8285 robots dans le monde
  - 4943 Robots aux US
  - 3342 reste du monde
  - 250 en France
- Toutes les 19.8 secondes un chirurgien débute une chirurgie à l'aide du robot da Vinci



# MEDTRONIC HUGO



**CMR**  
SURGICAL



# Où en est le développement de la robotique?

**310** under development

**486** ROBOTS / **448** COMPANIES

What are they?

**75** on the market

**47** dead

**37** acquired

**16** uncertain

There are more – Stealth & non-US companies



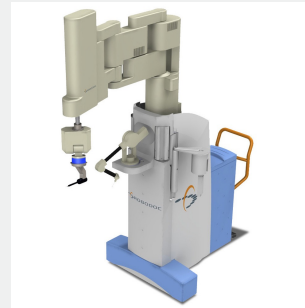
# Type de robots en développement:

**29** Autonomous



How they work

**180** Preplanned

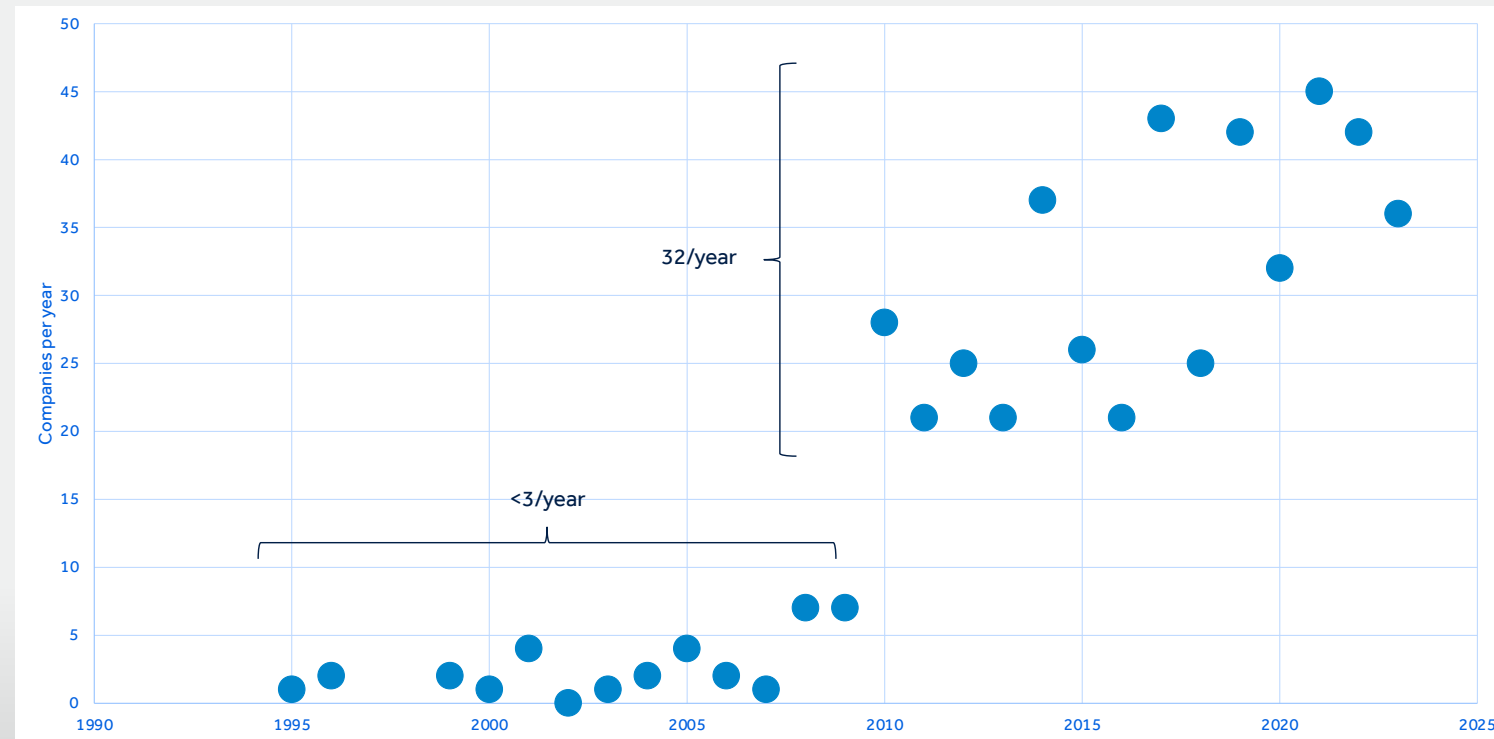


**275** Teleoperation



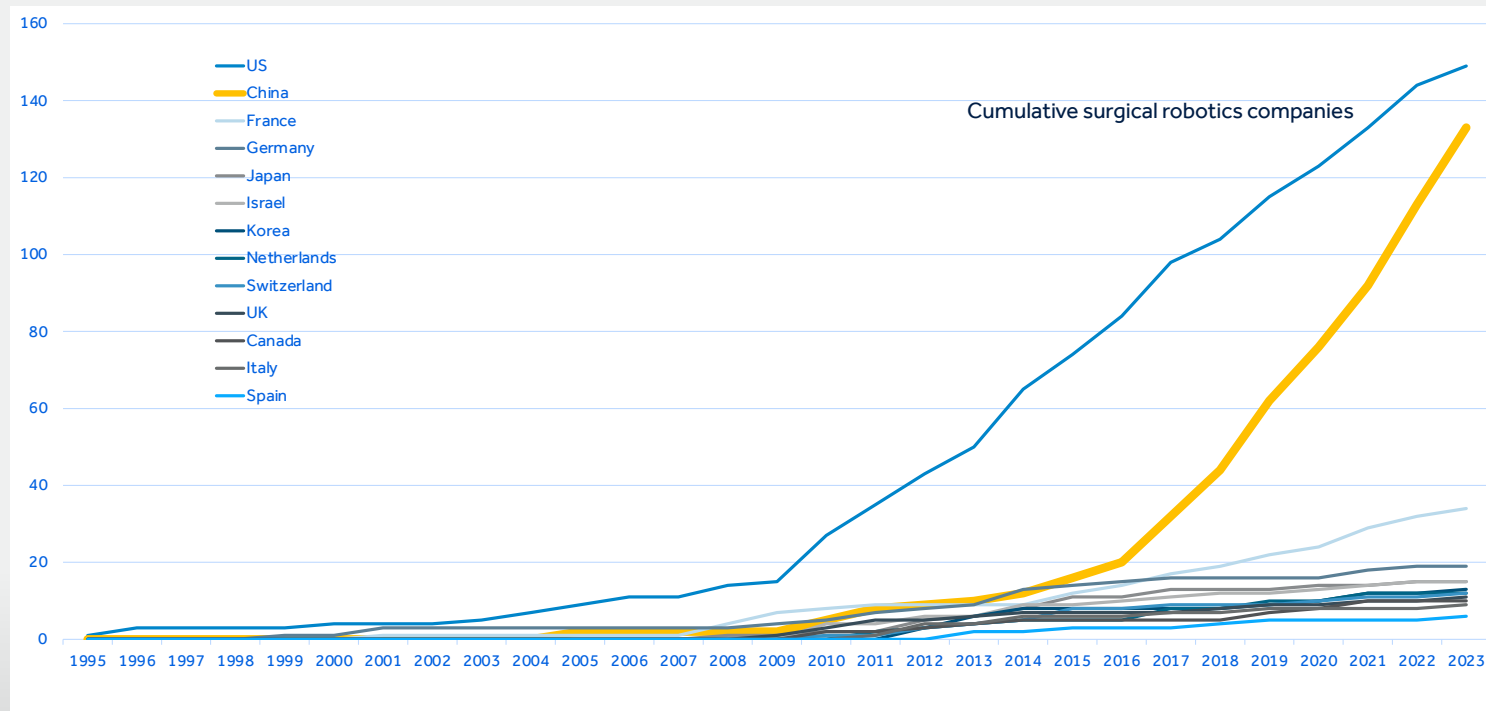
# Nombre de compagnies créées par an...

Large increase in companies created yearly as of 2010



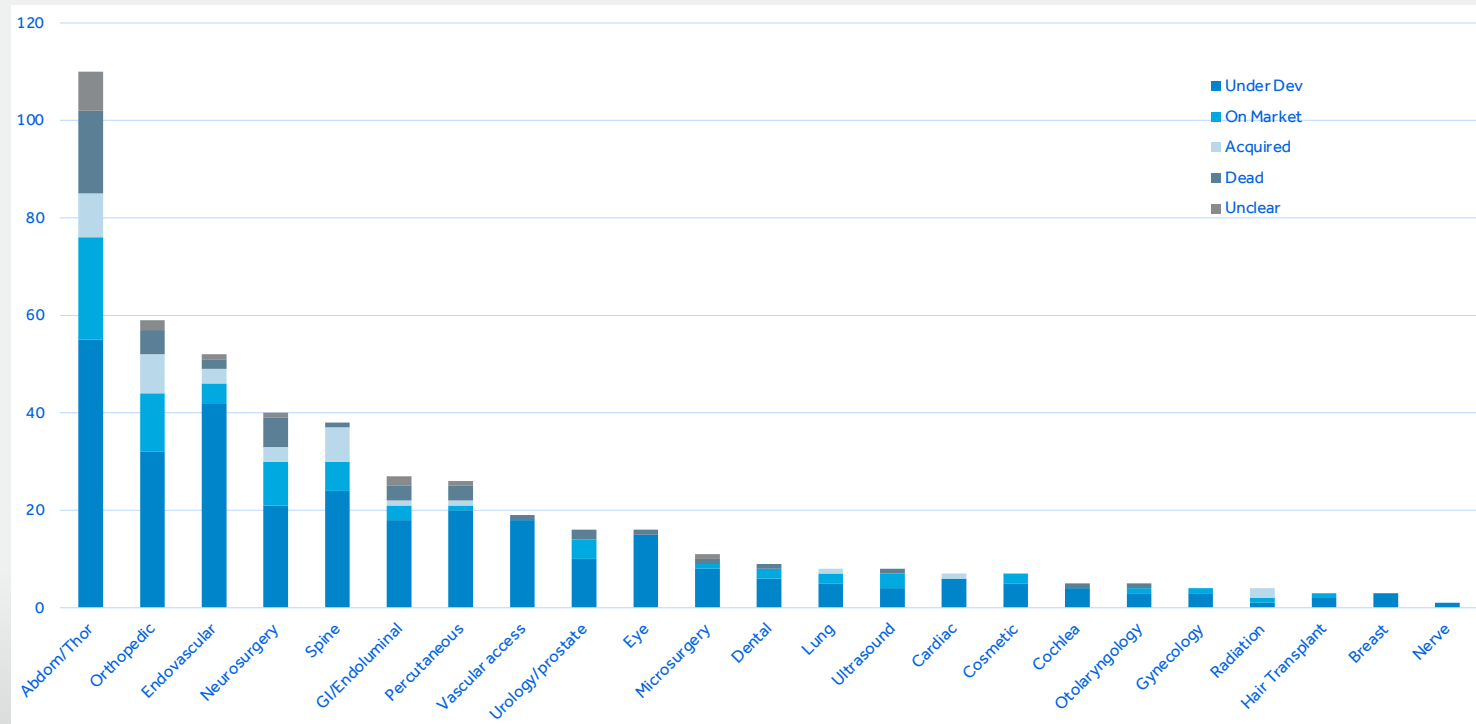
# Pays créatrices de compagnies de robotique

China will pass the US in total companies by 2024



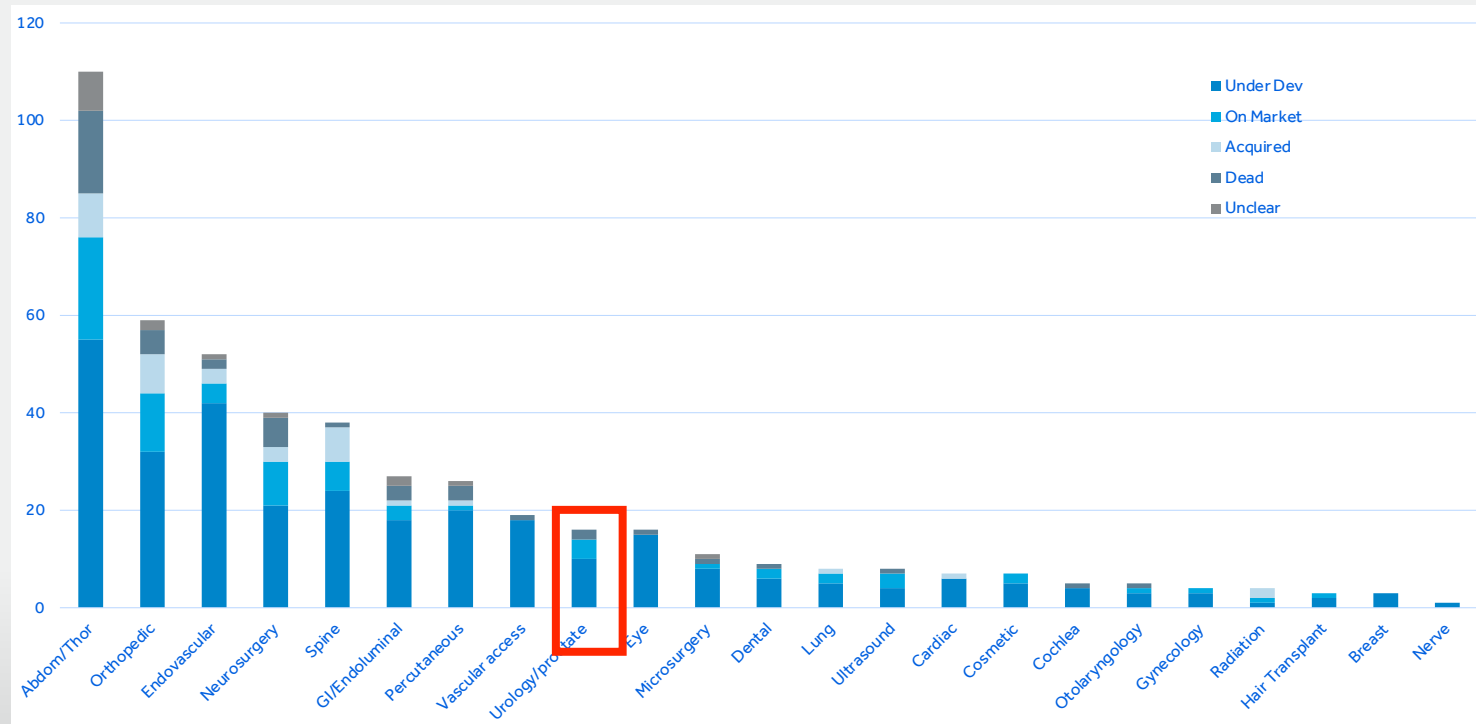
# Types de chirurgies ciblées:

Focus is still predominantly in abdominal procedures



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# Multi-bras vs Mono-tr

**Abdominal/Thoracic**

**INTUITIVE SURGICAL**

**CMR SURGICAL**

**Medtronic**

**EDGE MEDICAL 精锋医疗**

**computer motion.**

**Medicaroid**

**ENDOQUEST ROBOTICS**

**endoVia**

**TITAN MEDICAL**

**AESENSE SURGICAL**

Representative examples

25

[linkedin.com/in/dmeglans](https://www.linkedin.com/in/dmeglans)



## Varying consoles



INTUITIVE



CMR  
SURGICAL



revo™  
surgical solution



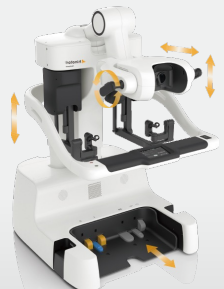
TITAN MEDICAL



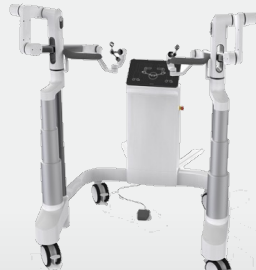
ASCENSUS



Medtronic



Medicaroid



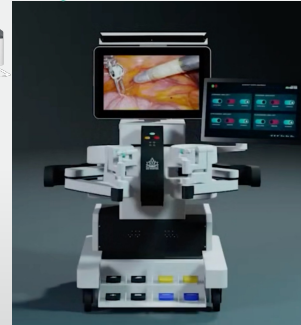
Distalmotion

MicroPort



avatera

SS INNOVATIONS





# Varying hand and foot controls



INTUITIVE



CVR SURGICAL



Medtronic



TITAN MEDICAL



Distalmotion

# Conclusions

- L'urologie
  - a démystifié la robotique chirurgicale
  - Montré que c'était cliniquement faisable
  - Incontournable en 2023 en oncologie principalement
  - Mais aussi de + en + pour des procédures moins standardisées
- Le principal marché est surtout
  - En chirurgie générale/abdominale
  - Endovasculaire
  - orthopédie