

***The French defence industry***  
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# Importance of military and defence industry : an overview

- Far behind the US, France is forging ahead

- Military expenditures

Source : SIPRI 2014



Rank		Country	Spending, 2013 (\$ b.)	Change, 2004-13 (%)	Spending as a share of GDP (%) <sup>a</sup>	
2013	2012				2013	2004
1	1	USA	640	12	3.8	3.9
2	2	China	[188]	170	[2.0]	[2.1]
3	3	Russia	[87.8]	108	[4.1]	[3.5]
4	7	Saudi Arabia	67.0	118	9.3	8.1
5	4	France	61.2	-6.4	2.2	2.6
6	6	UK	57.9	-2.5	2.3	2.4
7	9	Germany	48.8	3.8	1.4	1.4
8	5	Japan	48.6	-0.2	1.0	1.0
9	8	India	47.4	45	2.5	2.8
10	12	South Korea	33.9	42	2.8	2.5
11	11	Italy	32.7	-26	1.6	2.0
12	10	Brazil	31.5	48	1.4	1.5
13	13	Australia	24.0	19	1.6	1.8
14	16	Turkey	19.1	13	2.3	2.8
15	15	UAE <sup>b</sup>	[19.0]	85	4.7	4.7
Total top 15			1 408			
World total			1 747	26	2.4	2.4

- TNCs in the top 100 : 5 (EADS included, *Defense News*, 2014)

- Arms exports : 2004-2013 : 4th exporter (7% of arms sales) behind the US (29,7%) , Russia (27,5%), Germany (8,1%) before the UK (4,3%) (from SIPRI database)

# ***Drivers for this outstanding role***

- **1) A long presence in international affairs**
  - From the ‘King-sun’ through Napoleon , to major late 19th century imperialism, to the UNSC permanent seat
- **2) A unique relation of state to capitalism**
  - Weakness of a genuine ‘entrepreneur’ class
  - The (centralised) state at the core of economic and **social** relations

# *Drivers for this outstanding role (cont'd)*

- **3) A radical turnabout : de Gaulle and the Fifth republic (1958)**
  - Using military to compensate for the economic and geopolitical (colonies) decline :
    - 'From warriors to managers'
    - An economic and socially deep-rooted *Arms meso-system*
  - Using military budget as a major instrument for technology policy
  - Adopting a genuine relation to NATO, updated in recent years : *“the more successful we are in establishing a European defense, the more France will be resolved to resume its full role in NATO”* (Sarkozy, November 7, 2007, US Congress)

# The core role of the defence industry in the French economy

## Macroeconomic indicators

- |   | %          |
|---|------------|
| 1) Milexp/GDP*  | 1,5 (2014) |
| 2) Defence jobs (Ministry of defence + industrial workers)/Total wage-earners | 1,8 (2011) |

## Industrial indicators

- |   | %          |
|---|------------|
| 3) Defence industrial turnover/Manufacturing value added* | 8,9 (2012) |
| 4) Defence industrial workers**/industrial workers        | 6,2 (2011) |
| 5) Defence industrial Sites/ Top 50 industrial Sites      | 30 (2013)  |

## Technological Indicators

- |  | %           |
|--|-------------|
| 6) Defence R&D business contracts/Total R&D business expenditures          | 11,4 (2011) |
| 7) Total (Civil+Defence) R&D by Defence contractors***/Top 50 Business R&D | 22 (2012)   |
| 9) Patenting by Defence contractors/Top 10 patenting in France             | 34 (2013)   |
| 10) Patenting by Defence contractors/Top 50 patenting in France            | 15 (2013)   |

\* Numerator and Denominator are not homogeneous,

\*\* Direct and Indirect jobs

\*\*\* R&D performed by EADS (Netherlands-based) is not available. Our estimates is that it amounts to 1/3rd of total EADS R&D (a conservative estimate).

Source : Claude Serfati, *L'industrie française de défense*, La Documentation française, 2014

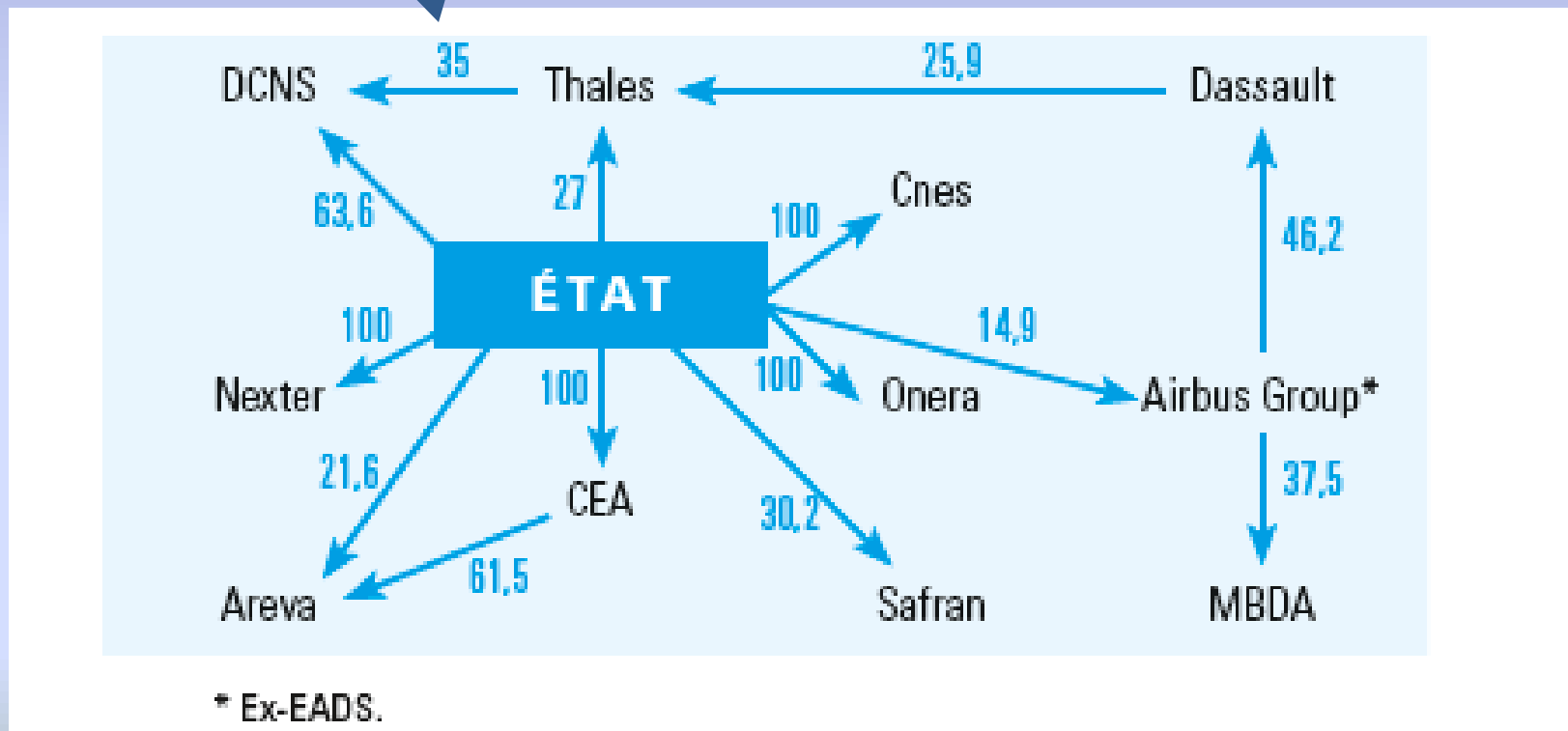
1/5th  
of  
GBRDE

# *The French arms meso-system*

- 1) Meso-systems approach ( $\pm$  *Filières* of production) puts emphasis on :
  - forward and backward technological linkages between companies ;
  - ‘Arms-length’ and ***non-market*** relationships between the components
  - High level of cohesion of the system, endowed with autonomous self-reproduction capabilities

# The French arms meso-system

- 2) share cross-holdings and core role of the State



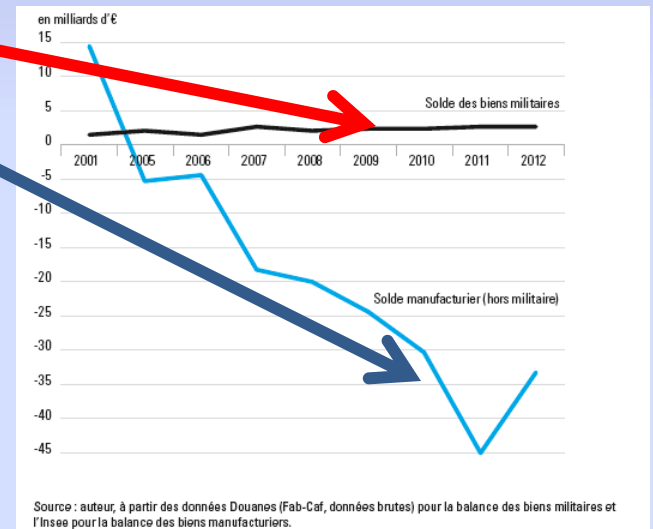
# *Singularity of the arms production*

- Complex technological systems :
  - Huge R&D costs with strong ‘path-dependancy’
  - Hierarchical industrial organisation
  - Multidecade *irreversible* programs :
  - Large escalating costs (in particular through the R&D stage and the Maintenance, Repair, Overhaul which are very opaque)
- ‘Bilateral Monopoly’ (mainstream economics) or ‘relational’ (instead of market) power
- A limited and political export ‘market’ :
  - Political drivers
  - Large corruption :



# *The cost of arms production*

- A considerable drain of technological and financial resources :
  - A competitive industry compared to a very steep manufacturing decline



# The cost of arms production (cont'd)

- Drivers for the self-reproduction of the FAMS : a mix of historical, political and economic factors :
  - In recent years, France has been **counterbalancing** its accelerated economic decline (economic recession or very low GDP growth, high unemployment, loss of international market's shares, etc.) with an active military involvement and the levelling off of military budget at a high level
    - Military activism in Africa and Middle-East (“Vive La France on Iran”, *Wall Street Journal*, November 10, 2013)

# The cost of arms production (cont'd)

- Drivers for the self-reproduction of the FAMS : a mix of historical, political and economic factors :
  - The case of Africa : only 1,6% of French arms exports, but a strong military involvement (+/-50 since 1960, and 8000 military in 2014) generates benefits :
    - Consolidates the World status of France
    - Eases 'Learning effects' for technology, equipment, and doctrine
    - Is a showcase for French exports (below)

- A show case for French exports:

réelles peut constituer un atout concurrentiel. Le PDG de Dassault-Aviation note que « l'opération au Mali a donc eu une influence positive sur l'image du Rafale, comme avant celle effectuée en Libye »<sup>23</sup>. Cette position est partagée par les dirigeants des sept grands groupes industriels : « Équiper l'armée française qui dispose de matériels et systèmes parmi les plus performants au monde et qui démontrent régulièrement leurs qualités en opérations extérieures reste pour les États clients un gage de crédibilité renforcée et donc un avantage compétitif important »<sup>24</sup>.

- Dassault head : « *Military intervention in Mali exerted a positive influence on Rafale's reputation, as did the military intervention in Libya* »
- 7 top Defence contractors : « *The French armies dispose of equipment and systems among the more performing in the world, as they frequently show up their outstanding quality in military interventions [which] give them an important competitive advantage* » (Letter to President Hollande)

# Defence as a competitive advantage for France in the EU

- France is pushing the defence agenda at the EU level :
  - Using dual-technology (1990s) and security (2000s onwards) rethorics :
    - FP7 : 1,35 bn€
    - Security-related programs (FP7) : *“While the research and innovation activities carried out under Horizon 2020 will have an exclusive focus on civil applications, the Commission will evaluate how the results in these areas could benefit also defence and security industrial capabilities »*(EC, 24/07/2014, COM(2013) 542 final.
  - Africa : a case for EU militarisation (28 civ/mil interventions since the creation of ESDP)

# From defence to security

- The new security agenda : 9/11 as a turning point, still the inclusion of security in the globalisation agenda can be traced back to the 1990s
- Transformation of Military-industrial system in Military-security industrial ones
- The French case : security, an opportunity for growth ?

Security  
doubles the  
size of the  
defence  
industry



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Tank you for your attention