

SAFEGUARDING THE EUROPEAN COMBAT AIRCRAFT* INDUSTRY

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(*) The designation “Combat Aircraft” has been selected for simplification, meaning a complete manned or unmanned system (airframe + engines + avionics) networked with peripheral elements (sensors, communication, control, information).

A Topic to Debate in 15 Minutes?

Since 2011, on-going Initiative from the Air & Space Academy and CEAS
(position paper in 4 languages 2011 addressed to 28 M.S., lectures, presentations, fora: in Paris, Brussels (EDA, EU Parl.), Venice, Berlin, Stockholm, Munich, Linköping, Finland, UK. Numerous individual visits & discussions)

Content:

- Defence expenditures and Military Air System Prime Contractors:
The USA vs. Europe, quest for efficiency?
- The situation: European combat aircraft and combat air system industry
- Why do industries not (like to) merge?
- Final assumptions and conclusions
- Appendix

– Forum –

Académie de l'Air et de l'Espace
Air and Space Academy

CEAS

**Sauver le futur de l'industrie européenne d'aviation de combat :
Que décider maintenant ?**

**Safeguarding the European Combat Aircraft Industry Future:
What must be done now?**

16 mai 2013 - 16 May 2013
Ecole Militaire – Au phithéâtre Foch
1 Place Joffre, 75007 Paris, France

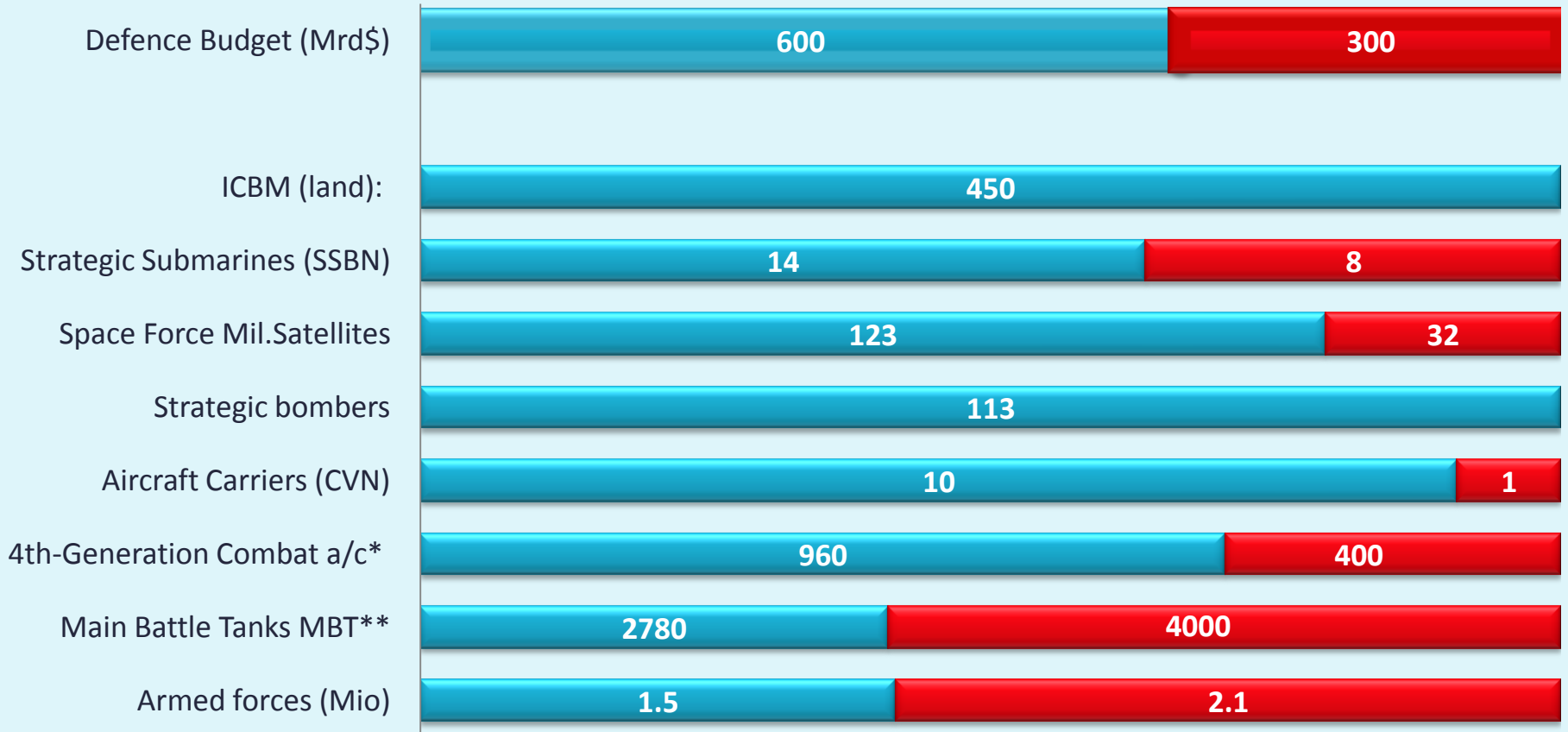
Sous le Haut Patronage du Ministre de la Défense Jean-Yves Le Drian
Avec le soutien du Centre d'Etudes Stratégiques Aérospatiales - CEAS
Under the patronage of the French Defence Minister Jean-Yves Le Drian
With the support of the Center for Aerospace Strategic Studies

Alenia Aermacchi
CASSIDIAN
DASSAULT AVIATION
Rolls-Royce
SAAB
SAFRAN THALES

Military Defence Spending & Deployed Numbers

■ USA ■ Europe

European Defence spending less efficient compared to the USA

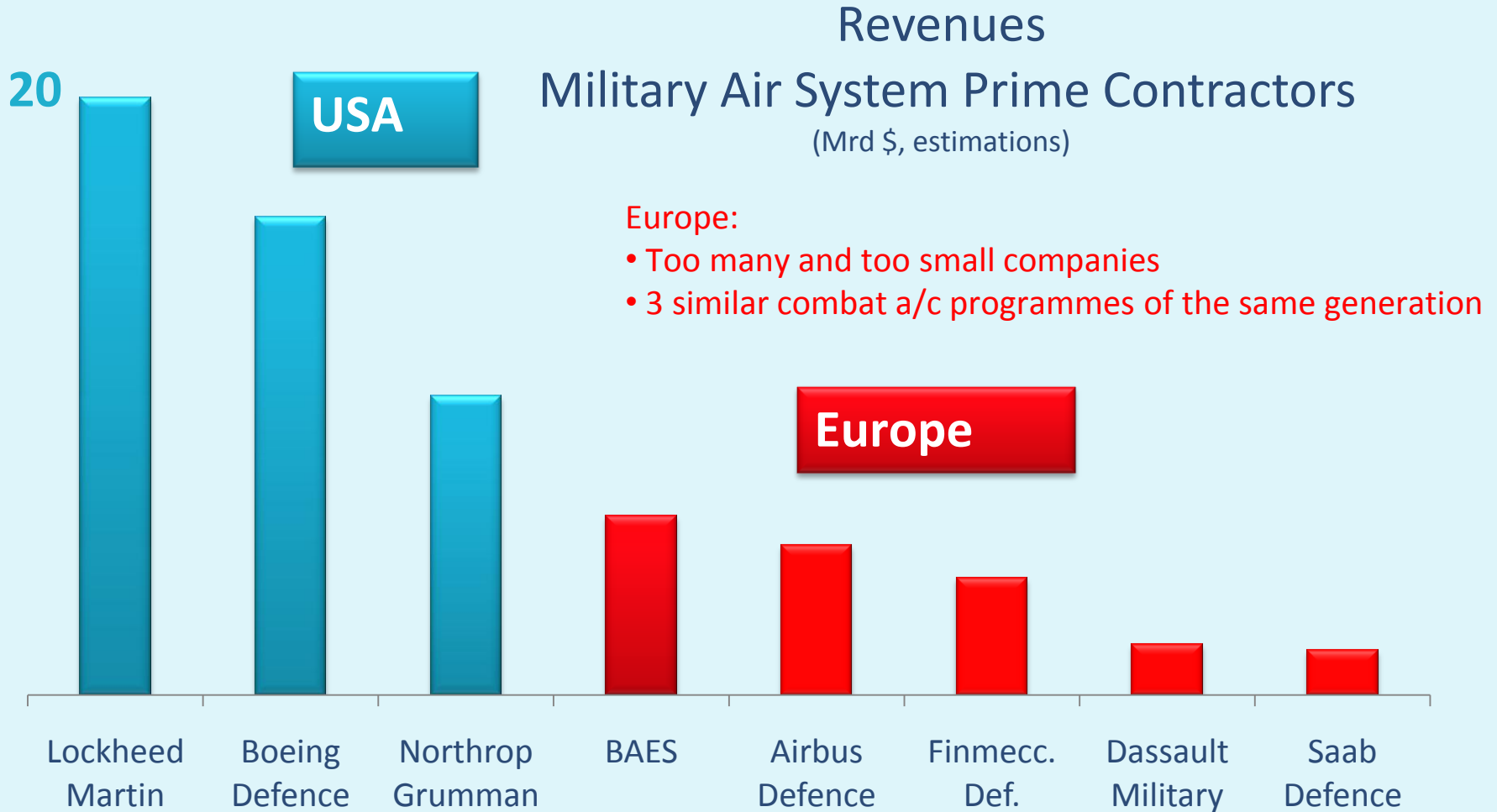


Source: Military Balance 2015

* not all of the same capability (Europe)

** half of them obsolete in Europe





Source: Military Balance 2015
and other



The European Combat Aircraft, Situation Today:

- Europe produces 3 types of combat aircraft of the same generation and for (approximately) the same missions
- Low production numbers, limited export success (numbers)
- Technologies not shared between nations, multiple & small investments
- Unmanned systems (UAV, UAS) missing in product portfolio
- No programme, no full scale development of FCAS* in sight

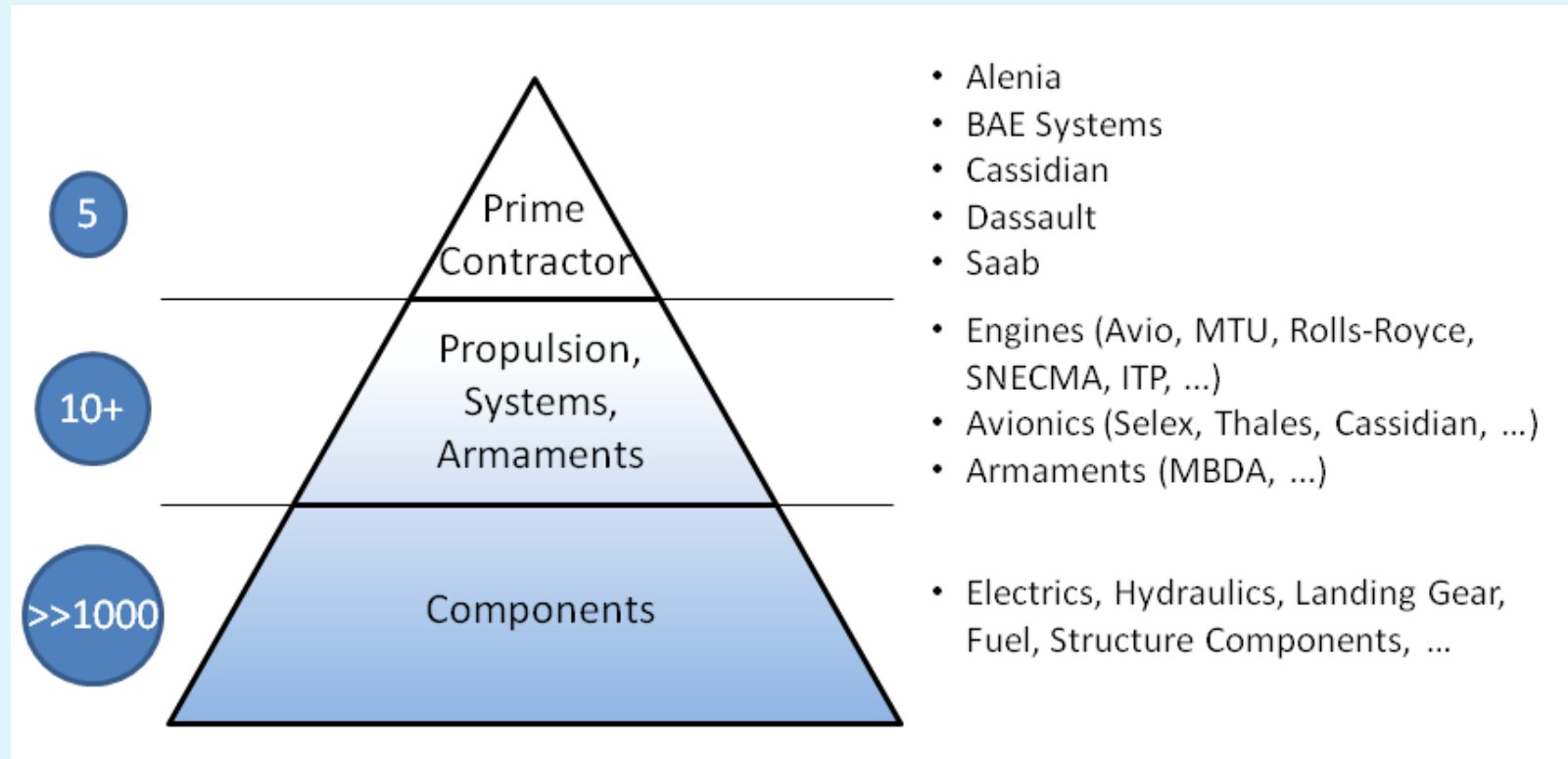
The European Combat Air System Industries, Situation Today:

- Still 5 independent companies to produce 3 aircraft types, too many sites
- Individual companies are 5 to 12 times smaller than US competitors
- Still 5 independent companies to produce 2 engine types
- High number of system and component suppliers (strategic importance)
- Independent companies = independent (national) technology development and capability (despite sharing SDR), individual IPR, shareholders etc.
- Too expensive to maintain

*FCAS: Future Combat Air System: a feasibility phase of the Anglo-French FCAS was started in 2014 (200 M€)



The Industrial Base in Danger: not only the Prime Contractors!



Some 100,000 highly skilled employees involved

Why does the European Industry not merge? Arguments brought forward (industry & nations):

- Let's further improve cooperation! (see Appendix 3)
 - 11 variants exercised since 1960*. Any new, better ideas?
- The national requirements are too different between the nations!
 - EF/Rafale req. could have been easily merged (see MBDA)
- A single/national company is more efficient!
 - Yes, but 1 nation alone not feasible. Build European company
- We need competition! (de Maizière against merger EADS-BAES)
 - Yes, but strong between Europe and USA/IL, NOT needed between Europeans any more (or only at component level)
- We better cooperate with USA!
 - Europe in subcontractor role only, loosing technology & capability
Weak or no return of considerable investments in the US.

* TEST-Study 2000, the variants were analyzed

If we assume:

- Defence sovereignty cannot be maintained by individual European nations any more (industry AND armed forces)
- Mastering combat a/c* FSD capability is a European strategic issue
- Europe has experienced all variants of cooperation (European, US)
- 28 armed forces, multiple industries and programs: waste of resources
- Much better exploitation of defence expenditures via rationalization

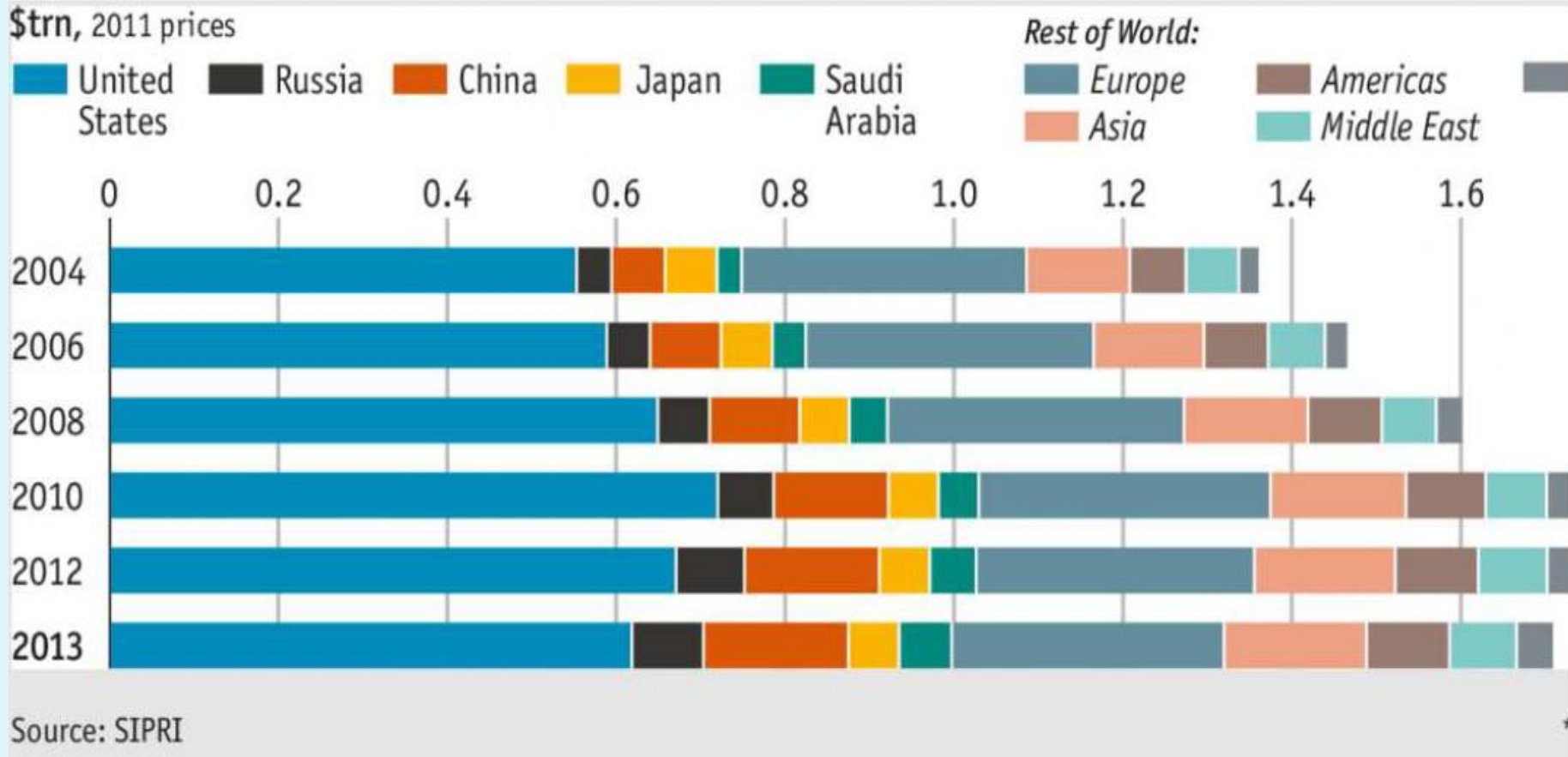
We then conclude, w.r.t. European Combat a/c* future:

- Increase of European defence spending is not required
- Requirements via European Institutions (empower existing ones!)
(What is needed? Manned combat a/c vs. unmanned? Asymmetric vs. conflicts between nations?)
- Mergers towards European (lead) company (rationalization and securing national budgets), built around a product development (MUST)
- Models**: MBDA (Storm Shadow-SCALP), KMW-Nexter (to be seen)

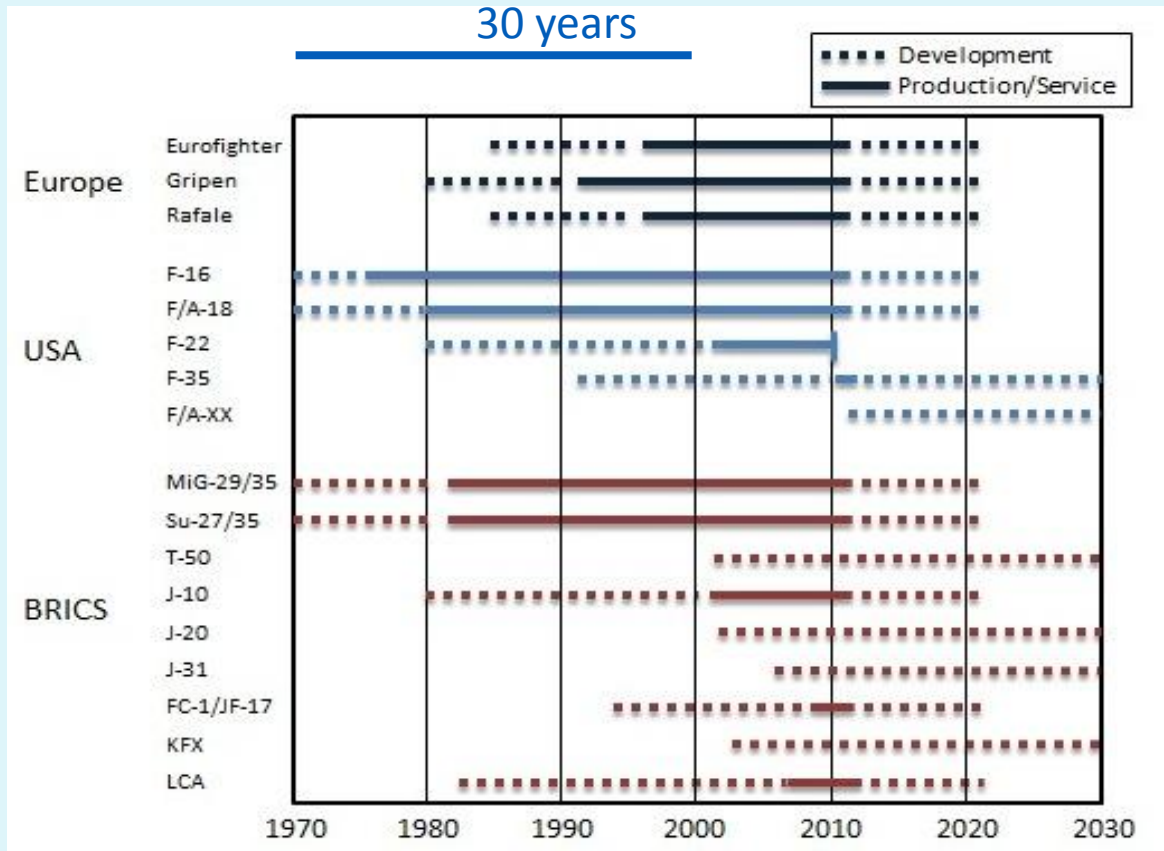
* Definition: see title page

** Civil successes: Airbus, Helicopters

Appendix 1: Defence Spending World Wide



Appendix 2: Main Combat Aircraft Programmes



The complete absence of Europe. In addition, UAV programmes relying on the same capabilities

Appendix 3: From “European Air Power”, AvM R.A. Mason “The Response to Uncertainty” page 229...

interfacing. Coalition foundations, on the other hand, must be laid on understanding, confidence, and trust in peacetime. Many steps may be taken by European air forces themselves without infringing on political sensitivities or implying political commitments. As much as possible, training and exercises should be multinational, attended by nonparticipating observers from potential partners with different priorities. Simulators should be shared. Successful, mainstream careers should include regular personnel exchanges at all levels. Doctrine and concept formulation should seek cooperative principles as well as identify the potential operational implications of differences. The experience of NATO cooperation should be exploited without necessarily adhering to NATO structure. Examples of regional integration, such as Nordic Defence Cooperation, should be explored. Moves to pool resources, such as the European Air Transport Command, Air Transport Force, and Nordic Joint Tactical Air Transport, should be accelerated. Niche contributions such as rotary, medical, and airfield defense should be encouraged. None of these cooperative steps are cost free, but the question facing European governments is not “Can we afford to have them?” but “Can we afford not to have them?”

In 18 text lines
8 times „should“ ...

European Air Power,
Challenges and Opportunities
Ed. J.A. Olsen
Potomac Books, 2014