

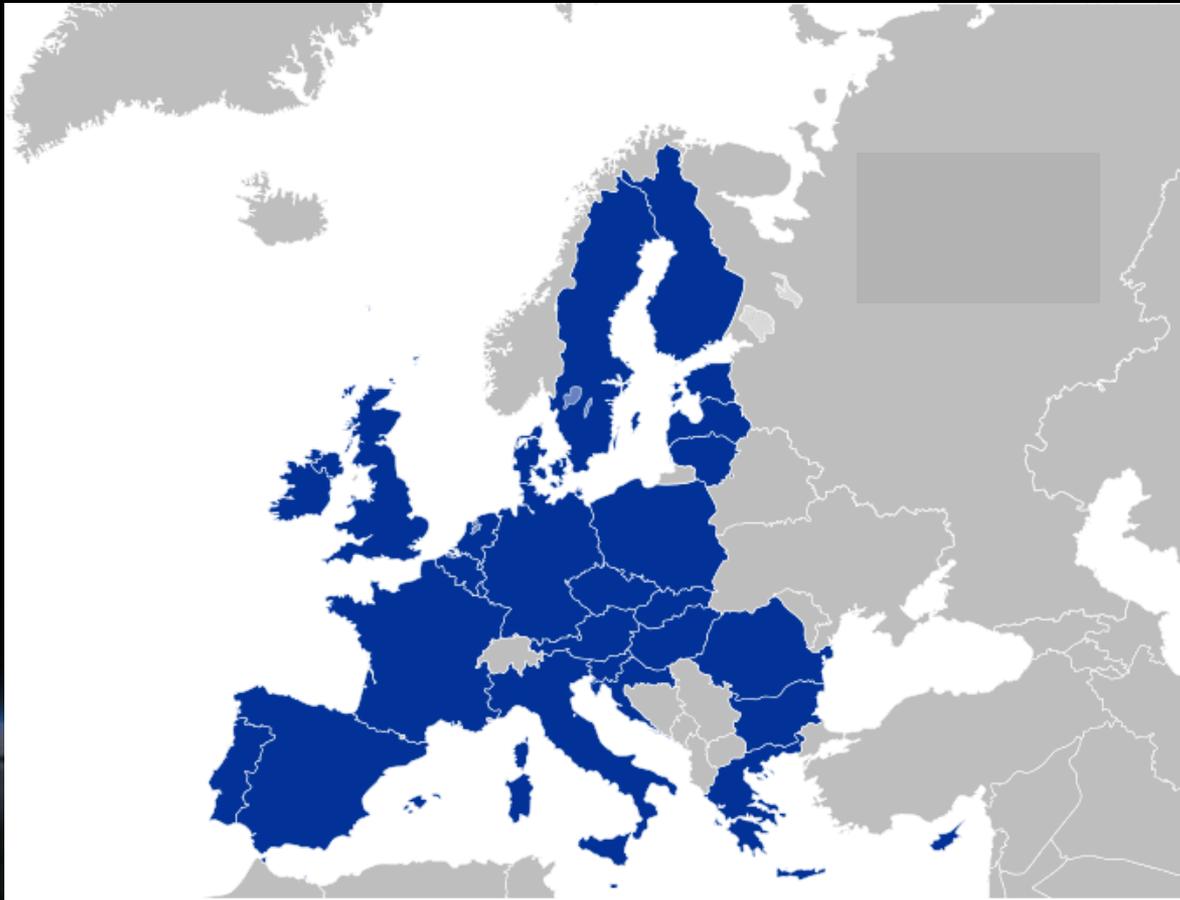
# European Cooperation in Space: ESA and the EU

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# ‘Europe’?



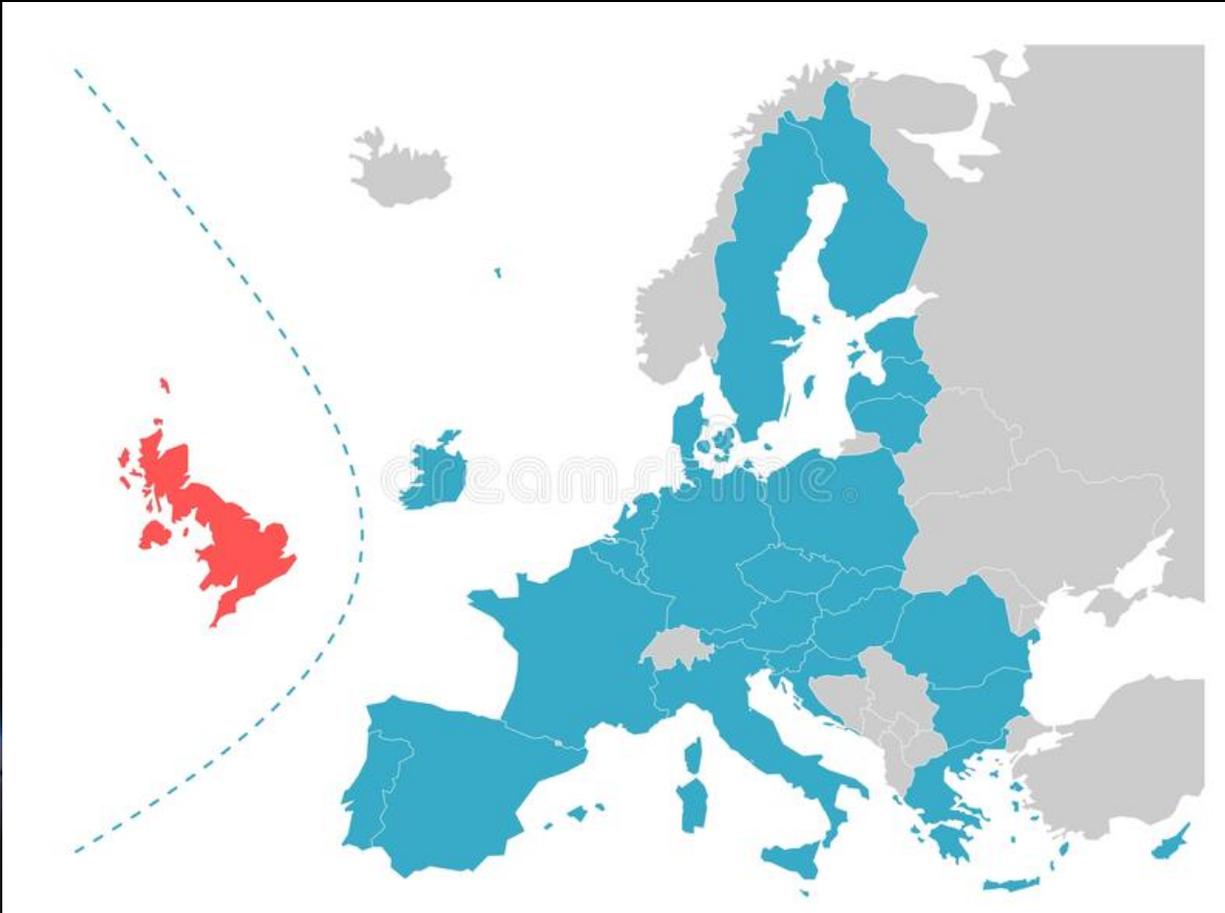
# 'Europe in Space?'



= European  
Union  
(28 member  
states)

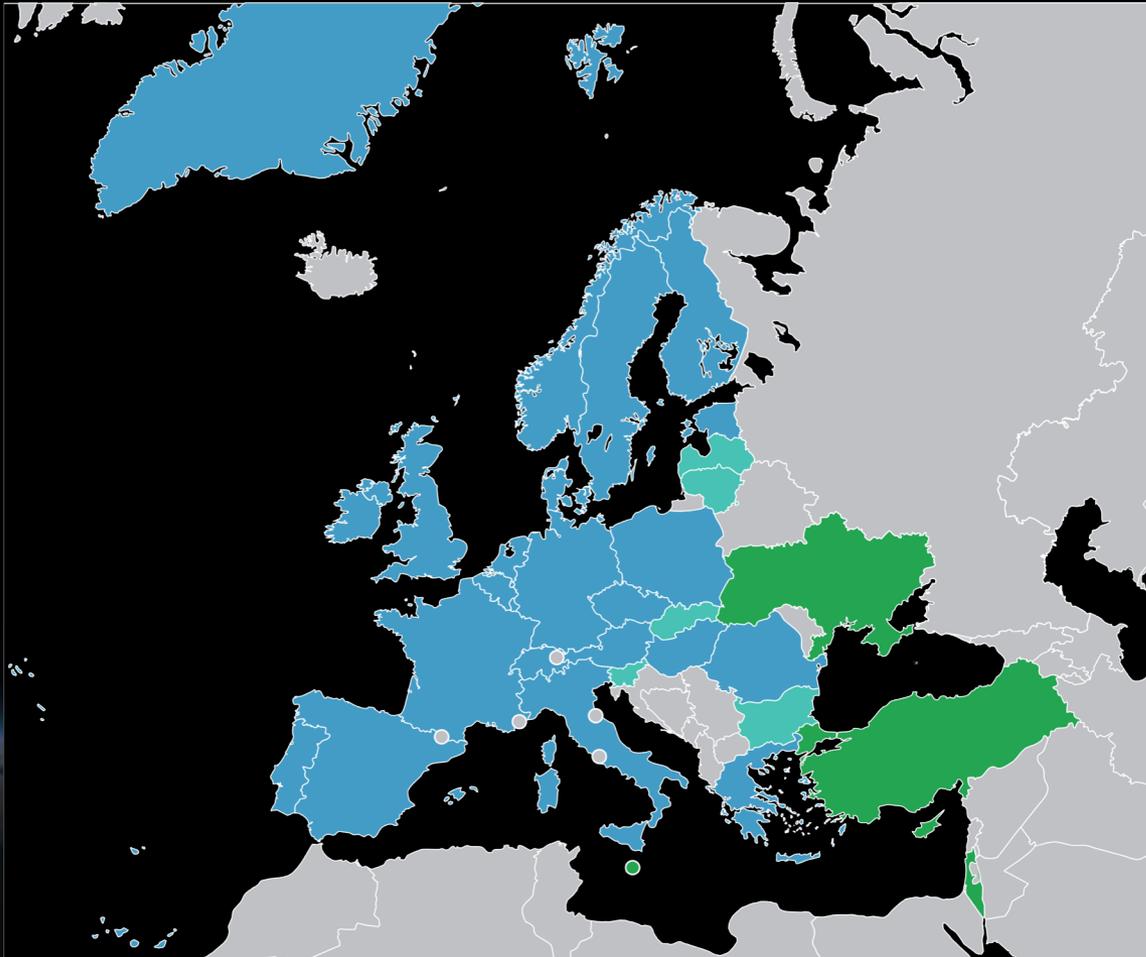
*Purpose:*  
General  
economic (&  
political...?)  
integration

# Side note...



Brexit:  
≠ Divorce  
= Member  
leaving the  
club, 27  
others will  
continue!

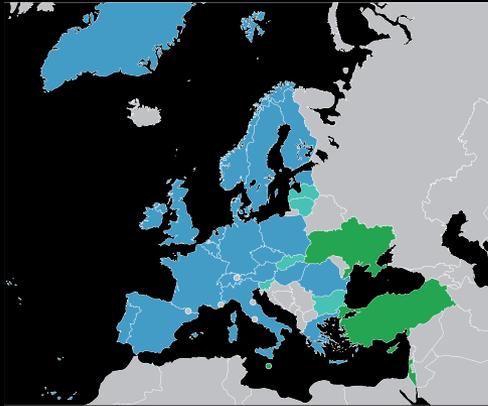
# ‘Europe in Space?’



= European  
Space Agency  
(22 member  
states +  
'aligned' states)

*Purpose:*  
Integration of  
space  
programmes

# ESA *versus* EU



ESA = operational organization →  
legal aspects cooperation per ESA  
Convention, intra-ESA/member  
state agreements & contracts



EU = regulatory, partly-  
supranational organization →  
legal aspects cooperation per  
directly applicable EU-law

# ESA & space



- Drives integration space efforts Europe
  1. Europeanization national space projects
  2. Initiation space projects at European level
  3. European partner in bilateral & multilateral (ISS!) space projects with others= All about international cooperation
- Convention with 5 main Annexes
  - Annex V: Industrial policy – ‘how to best involve European space industry’

# ESA Convention



- Article II:  
“... to provide for and to promote, for exclusively peaceful purposes, cooperation among European States *in space research and technology and their space applications*, with a view to *their being used for scientific purposes and for operational space applications systems* ...”

# ESA programmes



- Three generic types of programmes
  1. Mandatory activities – focused on scientific R & D
  2. Optional activities – focused on (in-space) applications
  3. Operational activities – ‘serving customers’  
= Flexible framework balancing sovereignty interests & cooperation → industrial policy...?

# Optional activities



- Council may accept programmes with simple majority – Art. XI(5.c), ESA Convention
  - Opportunity for member states to opt out – Art. V(1), ESA Convention
  - Contributions in the last resort subject to individual states' interests – Art. XIII(2), ESA Convention
- '*À la carte*' participation

# Industrial policy?



- Art. VII, ESA Convention, main principles:
  - Promoting cost-effectivity (§ a)
  - Improving world-wide competitiveness industry (§ b)
  - Using existing industrial potential Europe (§ b)
  - Preference for European industry (§ c)
  - Equitable member state participation (§ c)
  - Exploit advantages competitive bidding (§ d)

# Industrial policy!



- Art. VII(1), Convention → Annex V
- Art. II, Annex V:
  - Preference for industry & organizations ***member states***, resp. ***those participating*** in that programme
- Art. IV, Annex V ('fair return'):
  - Geographical distribution of contracts to industry follow respective investments of member states – ideal: return coefficient = 1

# EU & space (1)



- Not coming from a ‘space perspective’ – EU about economic integration in general
- ‘Space’ included only as per EU law
  - Following conferral, subsidiarity & proportionality:
    1. Included explicitly in treaties / secondary EU law
    2. Implicitly following from provisions treaties / secondary EU law
    3. Exceptionally following ‘implied powers’ or Art. 352, TFEU, ‘appropriate measures’

- Cornerstone of economic integration per EU law
  1. Four freedoms of movement
  2. Competition regime
    - Both for states and for private companies
  3. Harmonization of national laws
  4. Sector-specific Titles – agriculture & transport

↔ ***Applicability to space activities???***

# EU & space (2)

- ◆ No reference as such to ‘outer space’ in treaties or secondary law
  - ↔ Only reference in policy documents
  - Only to the extent space activities are economic activities *may* EU law be(come) relevant
  - Primarily where ‘markets’ & private companies are involved

# EU & space (3)



- EU no overarching / comprehensive space policy (at least until fairly recently)
- 1985: ESA determines, drives & coordinates European space effort
  - Arianespace spin-off for launch activities
  - EUTELSAT spin-off for satellite communications
  - EUMETSAT spin-off for satellite meteorology

# EU & space (4)



1986: Commission starts to move in

- Realizing space industry could be / would be motor technological & economic development
- Starting through R & D, including R & D on space / using space, *i.a.* pre-application stage

*Note: One area where Commission had rather free hand in spending, was in research programmes!*

→ Legal basis provided by 1985/86 Single European Act

- With a view to the Internal Market ...
  - Plans for ‘Green Eye in the Sky’ in the 90s!
    - SPOT-4 instrument
    - = EC as satellite operator → customer
  - Use for other monitoring purposes
    - Farming subsidies & fishing quota
    - Obligations under international environmental treaties
  - GMES/Copernicus: EU in the driver’s seat

- Protection remote sensing data(bases)
  - ESA involvement in remote sensing operations
    - In particular copyright
    - National differentiation contents national regimes
      - *E.g.* ‘sweat-of-the-brow’ versus ‘originality’ & applicability in electronic realm; duration of protection
  - ESA research project → Commission study
  - Need for a specific right to protect databases as including remote sensing databases → ...

# Directive 96/9



- = ‘Database Directive’
- *Sui generis* right of protection
  - Essentially special version of copyright
  - Mandatory inclusion in national law
  - Applies to nationals EU m/s & databases ≈ generated on EU m/s territory (Art. 11)
  - Individual accessibility & investment required
  - Extraction right & re-utilization right (Art. 7)
    - With database creator / owner

- Satellite communications = first space sector with commercial potential
  - First space sector interesting EU
    - Full-fledged Internal Market requires also level playing field for private satellite communications
- Baseline: satellite communications = subset of telecommunications happening to use satellites as part of the network

# 1987 Green Paper



- Starting point liberalization & privatization of telecoms at large
  - Non-discriminatory & efficient access users to telecom networks & public services to be liberalized & open to private enterprise
  - Establishment Internal Market telecom services by 1998
  - ***So far excluding satellite communications***
  - Resulting rapidly in several key Directives

# → Satcoms?

- **INTELSAT, INMARSAT & EUTELSAT**
  - Hybrid character: ‘public consortia’
    - Convention: member states & Operating Agreement: Public Telecom Operators
  - ↔ Pressures to privatize
    - Technological developments
    - Politico-economic developments
    - Privatization by early 2000s

# 1990 Green Paper



- Aims:
  - Full liberalization earth segments of satellite systems
  - Application competition regime to satcoms
  - Unrestricted access to space segment capacity
  - Commercial freedom to market space segment capacity
  - Separation regulatory & operational functions

# Directive 94/46



- = ‘Satellite Directive’
- Amending Dir. 88/301 & Dir. 90/388 with regard to satellite communications
  - Resp. on terrestrial equipment & services
- & One further key measure with regard to the operational satellite IGOs
- Many follow-up Dirs., Regs. & Decs.

# ICT convergence



- = Latest on telecoms → satcoms in EU
- = Essentially about 'technology/platform-neutrality'
  - Different legal & regulatory regimes made increasingly less sense because of opportunities to switch between technologies
- Specific issue of privacy & data protection
- Following 1998 Green Paper radio-spectrum policy → 2002: general overhaul & update by ICT convergence package

# 2002 package



- Directives 2002/19, /20, /21, & 22 on general regime
  - Directive 2002/77 on competition aspects
  - Decision 676/2002 on radio spectrum
  - Directive 2002/58 on privacy & data access in highly electronic communication environment
- Some harmonization environment for international cooperation private sector

# Status quo?



- Still no EU-licensing – only some mutual recognition & harmonized conditions
  - ↔ Nothing comparable to FCC in US context
    - 2002 package overhauled ‘outdated’ regulatory obstacles based on ‘old’ technical boundaries
    - Harmonization in terms of technological process & in the process also further erosion of member state discretion to regulate
    - Private sector cooperation still *international*

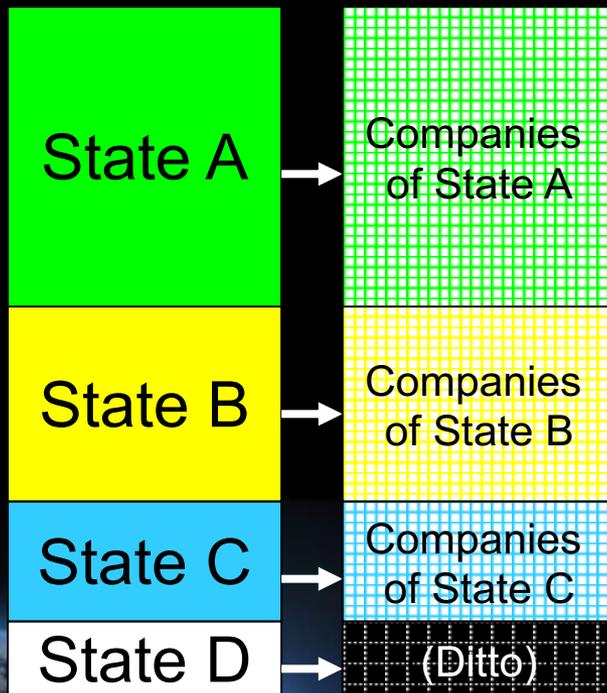
# ESA and/or EU?



- Spurious contacts since late 70s
  - Some technical projects in telecoms
  - But EU involvement in telecoms → satcoms took place completely outside of / without ESA
- Starting point ESA–EU cooperation:
  - Support for R & D incl. space under Single European Act (1986)
  - Support for ESA – ‘fair return’ (...?)

# Fair return (1)

Project budget:



- *Could qualify as indirect form state aid under EU law*
    - Concerns commercial ‘undertakings’
    - Companies of A clearly best chance of work
- ↔ Art. 107(1), TFEU
- Is ESA (ab)used to ‘circumvent’ prohibition of state aid...?

# Fair return (2)



- Fair return  $\approx$  silently accepted
  - Justified by special character space sector
    - Concerns R & D; specific structure space sector; interests in European competitiveness world-wide
  - Legal parameters
    - Exceptions under TFEU: if important project of EU-scope / for development economic activities (Art. 107(3), (b) & (c))
    - ↔ Also ESA Convention requires efforts to “exploit advantages competitive bidding” (Art. VII(g))

# ESA – EU (1)



- Cooperation institutionalized as of 1992
  - Space Advisory Group (1993)
  - European Space Strategy (2000)
    - 1st joint meeting ESA Council & EU Council
    - Strengthening foundations space activities – launching in particular (Lead = ESA)
    - Enhancing scientific knowledge – e.g. ISS (Lead = ESA)
    - Reaping benefits for society & markets – e.g. through joint projects (Lead = EU)

# ESA – EU (2)



- EU gradually more dominant
  - Commission White Paper (2003)
    - “Space: a new European frontier for an expanding Union – An action plan for implementing the European Space policy”
    - Support space infrastructures & applications, for needs citizens & EU political objectives; consolidate scientific & technical basis space activities; update institutional structure EU
  - EU & ESA distinct roles in space
    - ‘Federating demand’ *versus* ‘federating supply’

# Options (1)



## 1. Status quo

- Inefficiency & lack of coordination ...?

## 2. Status quo-plus

- More institutionalized cooperation

## 3. EU absorbs ESA

- ESA as executive arm EU (Commission)

- But: (lack of) expertise & capacity issues  
Commission

- Exx.: European Environmental Agency & WEU

# Options (2)



## 4. EU becomes member of ESA

- Exx.: Eurocontrol (provisionally) & WTO
  - Depending upon the extent to which EU has exclusive / shared competence (...!)
- ‘Not two captains on the spaceship, but ESA as captain & EU on the board of the shipping company’
  - ESA essentially itself a platform for national space policies – with its own prodding & part-shaping to mould that into some sort of European space policy

# Agreement (1)



- EC–ESA Framework Agreement, 25/XI/2003
- Art. 1: overarching aim
  - Coherent & progressive overall European space policy
- Art. 2: cooperation
  - Due regard respective tasks, responsibilities, settings & operational frameworks

# Agreement (2)



- Art. 4: each party compliant with own rules
- Art. 3: fields of cooperation – *everything...*
- Art. 5(1): ‘joint initiatives’
  - ESA manages for EU (& under EU law)
  - EU participates in ESA optional programme
  - Jointly coordinated & funded activities
  - Creation joint subsidiary bodies

# Agreement (3)



- Art. 5(2): *ad hoc* arrangements, e.g.:
  - Rules on IPR & other property rights
  - Respective roles & financial implications
  - ‘Industrial policy scheme’ (...!)
- Art. 5(3): financial contributions
  - Any contribution governed by financial provisions respective party & ‘under no circumstances EU bound to ‘geographical distribution’

# Agreement (4)



- Art. 8(1): establishment Space Council
  - Coordination & facilitation joint activities
  - Drafting European Space Policy (2007)
    - Extended to security- & defence-related areas, Space Situational Awareness, industrial policy & international relations
    - Preferred model: ESA acting as technical expert, manager of EU space activities & procurement agency for EU – applying EU law principles
    - Self-financed ESA programmes untouched

# Emerging pattern



- EU starts shaping policy through ESA
  - *i.e.* not instead of ESA / by directing ESA
  - Using various options Framework Agreement
    - Joint initiatives: Galileo & GMES/Copernicus
      - ESA gradually receding as political / general considerations start to dominate
      - Failure of Galileo PPP forced Commission to rethink insistence on private participation / role markets in space industry incl. 'fair return'
  - Use by EU of more procurement-related instruments

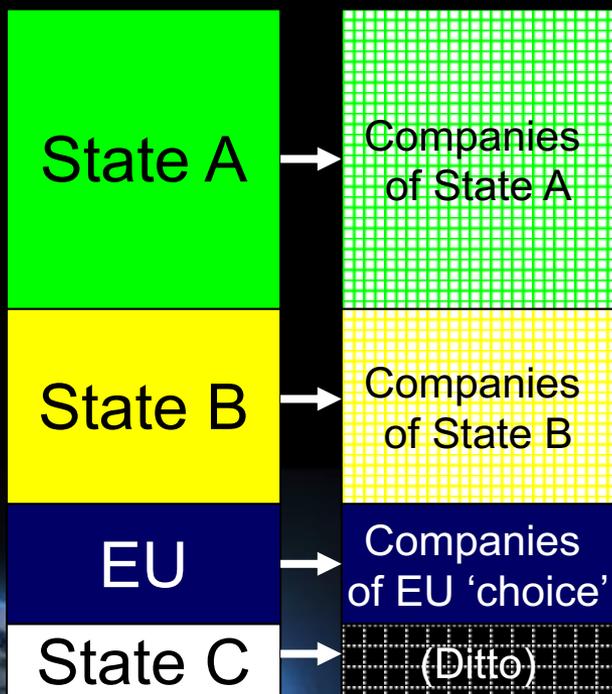
# Flexibility



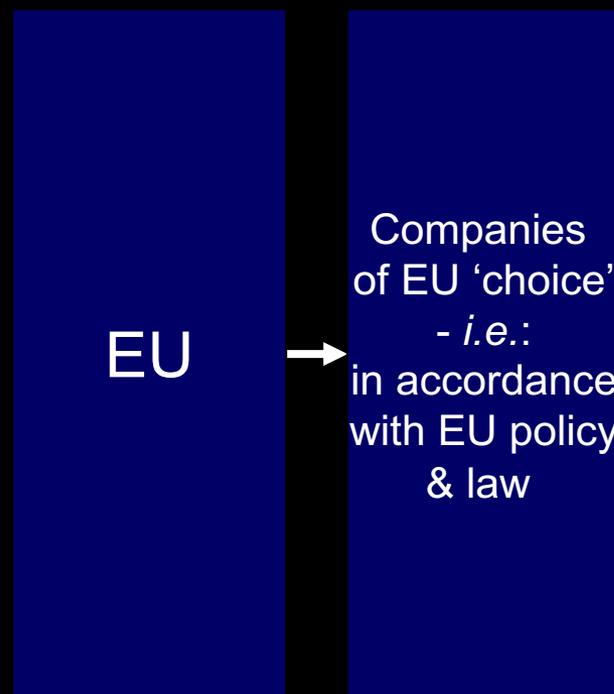
- Use by EU of ESA through optional programmes
  - EU first steps ‘on board’ ESA as ‘one of the member states’
  - EU portion for EU policies’ purposes
    - Open competition – no ‘fair return’ here!
- As EU competencies & activities grow, so will measure of competition ...

# Fair return (3)

## Fair return Mk. II



## Fair return Mk. III



# The final word? (1)



- The EU '*space competence*'!
- European Constitutional Treaty (2004)
  - Art. I-3: includes space in new objectives EU  
§ 3: to promote scientific & technological advance



# The final word? (2)



- European Constitutional Treaty – *ctd.*
  - Art. I-14: on shared competences
    - § 3: ‘On research, technological development & space, EU shall have competence to carry out activities, in particular to define & implement programmes; exercise thereof competence shall not result in EU member states being prevented from exercising theirs.’
    - Actually a *parallel* competence

# The final word? (3)



- European Constitutional Treaty – *ctd.*
  - Art. III-254: space policy
    - §1: to promote scientific & technical progress, industrial competitiveness & policy implementation, EU shall draw up European space policy & may promote joint initiatives, support R & TD & coordinate efforts exploration & exploitation of space
    - § 2: ‘To contribute to objectives § 1, European laws or framework laws shall establish necessary measures, which may take form of European space programme.’
    - § 3: EU to establish appropriate relations with ESA

# The final word? (4)



- European Constitutional Treaty – *ctd.*  
= *First* EU ‘space competence’?  
↔ Sector-wise:
  - Space-related R & D: 1986 Single European Act
  - Satellite communications: 1994 Satellite Directive
  - ‘Fringe’ competencies: 1996 Database Directive
  - Satellite navigation: 2002 Reg. 876/2002 on GJU
  - Satellite EO: 2010 Reg. 911/2010 on GMES
- ↔ Overarching competence on anything related to space activities in / from EU ...

# The final word? (5)



## → Treaty of Lisbon (2007/2009)

- Art. 4(3) copies Art. I-14 ('parallel competence')
- Art. III-254 'replaced' by Art. 189, TFEU

§§ 1, 3: have remained identical

§ 2: to attain objectives § 1, EP & Council, acting in accordance with ordinary legislative procedure, shall establish necessary measures, which may take form of European space programme, ***excluding any harmonization laws & regulations member states***

§ 4: without prejudice to other provisions Title

# The final word? (6)



- Treaty of Lisbon – *ctd.*
  - EU space competence in legal terms now limited to adoption secondary EU law ...
    - 1.... establishing space project or space programme & taking care of financing through EU budgets; or ...
    - 2.... applying freedoms of movement & competition regime to space sector (Internal Market) ...
  - ... to the extent EU member states have not already established / are interested in establishing national space law dealing with these aspects of space sector activities

# Conclusions



- ESA & EU main European vehicles for international cooperation in space, both internally and externally
- EU & ESA gradually converging and integrating policies and activities, but still some lack of ‘institutional compatibility’
- We will need many space lawyers in Europe to further sort out the legal issues, both current and prospective!

