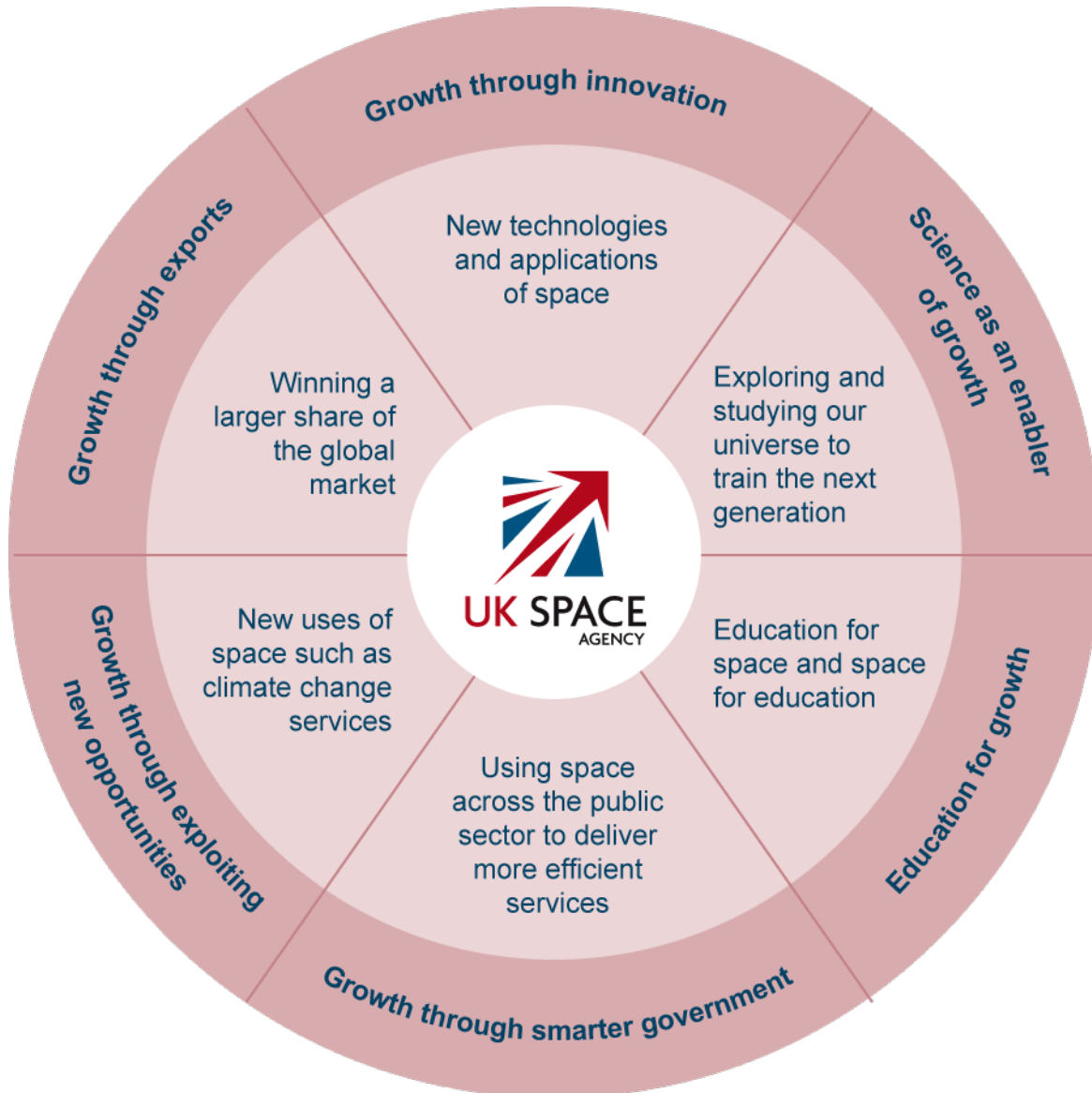




The UKSA view on future EO direction

Future Science – Needs & Missions
CEOI-ST Workshop - 31st March 2015

Civil Space Strategy – six themes



Goal:

£ 40Bn sector by 2030

Key growth area:

Downstream applications: £ 37Bn
Upstream: £ 3Bn

Maturity of applications market will stimulate demand for new & improved space infrastructure

EO – key role to play

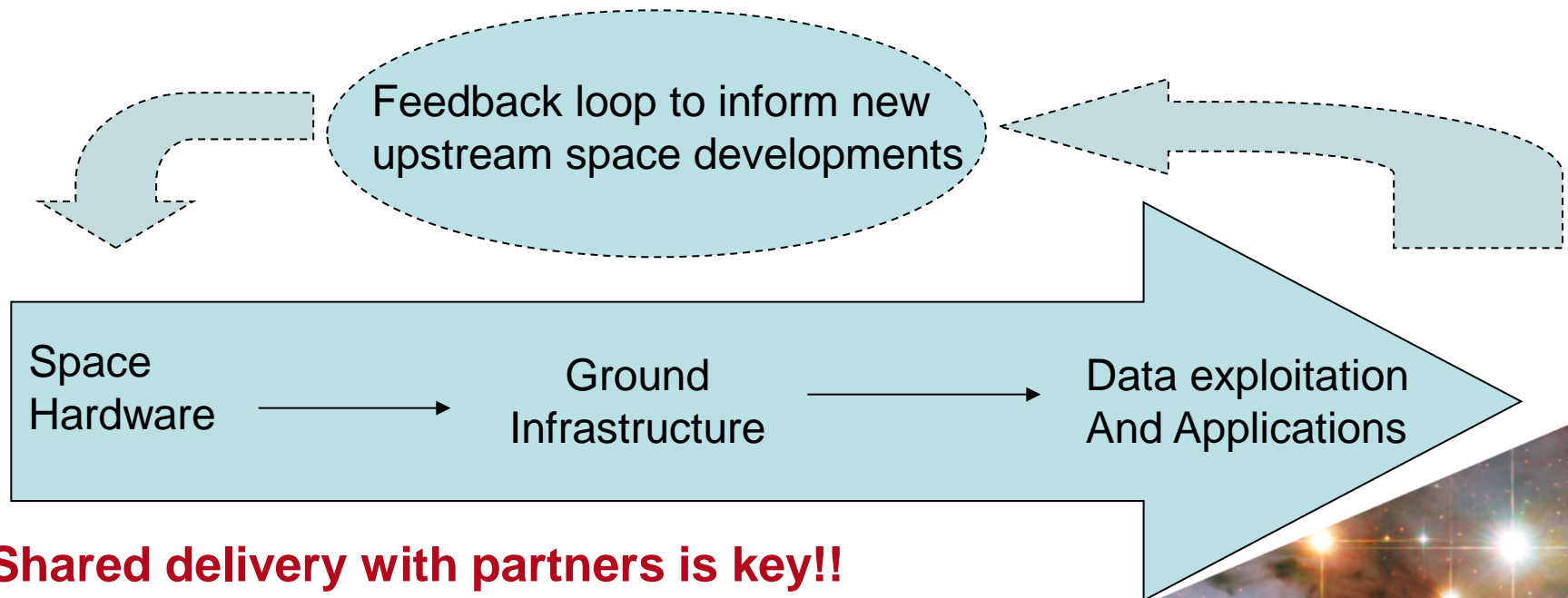
- Significant opportunity for growth in downstream market
- EO = ~30% of UKSA Budget
- Focussed applications programme in addition to European opportunities
- EO = one of the top 5 KPIs in the UKSA 15/16 Corporate Plan

Re-energising Earth observation activities

- *Implementing the national EO strategy*
 - *new staff, closer alignment with wider space policy*
- 

UK EO Strategy (2013-2016) – 4 pillars

- Maximise return on European programmes for academia, government and industry
- Build on leadership in processing, QA, modelling and visualisation of space data for environmental research & climate applications
- Leadership in radar technology and applications
- Increase leadership in small low cost missions



Shared delivery with partners is key!!

Implementation plan

- Clear action plan July 2015 – November 2016
- Priorities to be considered at the EO Town Hall (18th June 2015)
- Strategy/implementation beyond 2016 will be driven by
 - the new government
 - the outcomes of this action plan
 - spending reviews and
 - C-MIN 16 outcomes



Future EO Missions - context


Vision:

to enable UK to be strategic and proactive, providing leadership in influencing future EO observations, instruments and missions

- Building on existing strengths (to reflect EO Strategic priorities):
 - UK has a wealth of knowledge and capability both on science, and mission instrumentation;
 - many areas of leadership, a reflection of past targeted investments
 - UK = International player: both institutional and commercial/export customers

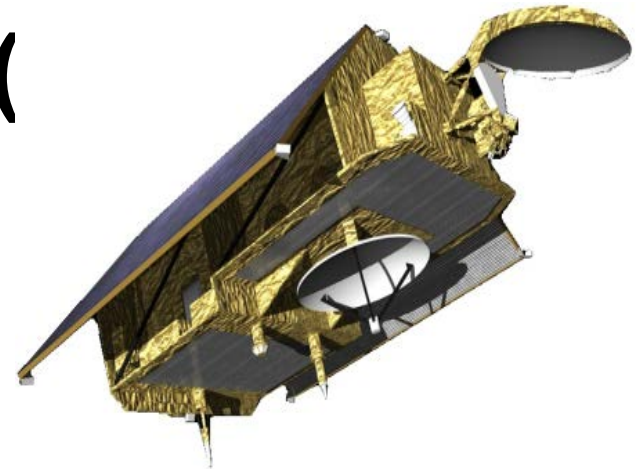


Institutional EO mission opportunities (1)

- EO space investments currently channelled into ESA, EUMETSAT, EU
 - Technology budgets: TRP, GSP, GSTP + H20/20
 - Science Missions: EOEP-4:
 - BIOMASS,
 - EE-8 selection – September 2015 PBEO - UCM will take place on 15-16 September in Krakow (Poland)
 - Small Mission Initiative – implementation of SAOCOM CS?
 - Earth Explorer-9 Call – draft proposal to be discussed at September 2015 PBEO
- 

Institutional EO mission opportunities (

- Operational Missions:
 - EPS-SG/MetOp-SG
 - GMES/Copernicus: Sentinels 1, 2, 3 (C) & (D) units, Jason C/S
 - Next generations for post 2030?
- Technology demonstrators - H20/20



National approach (1)

- To maximise return from European investments:
 - CEOI (NSTP): national EO instrumentation technology programme
 - SSGP: national applications programme
 - Other space EO investments: Catapult, G/S...

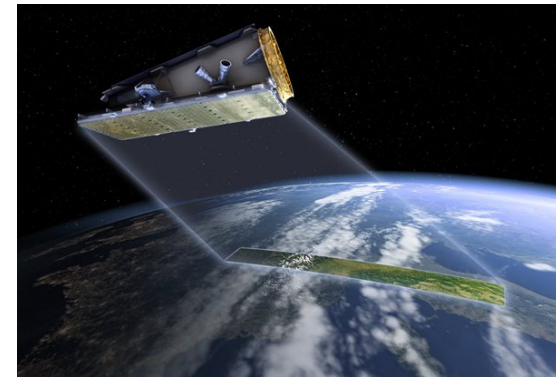


18th March 2015:

Signature of the ESA – UKSA agreement on the national collaborative ground segment

National approach (2)

- No national EO missions space programme budget to support a strategic approach (eg: CNES, DLR...)
- Many opportunities to work with partners bilaterally
 - but no timely funding
- Political will is important: NovaSAR
- Funds materialise across government – we need to have options and cases ready when those opportunities arise
- Case-by-case approach = in addition to any national space budget settlement



A strategic approach to bilaterals

- Bilaterals: institutional & export
- UKSA and CEOI team working together to identify and assess opportunities
 - EBOAT – country by country study to identify bilateral opportunities which enhance UK industrial and scientific capability
 - EOMAG – viability assessment and prioritisation of potential EO missions in accordance preparedness and potential flight opportunities
 - Initial recommendations supported by EOAC
 - Agency Space Programmes Review Panel assesses technical/programmatic viability (has supported NovaSAR)
 - Key Science advice from NERC /NCEO (dual key)



EO missions: Way Forward

- European institutional
 - Update of the ESA's Science Strategy:
 - importance for science to address societal challenges
 - Preparations for EE-9 –
 - game changing in terms of approach to mission implementation?
 - Update to the ESA EO strategy in discussion
 - Focus on C-Min 16 :
 - Review of EOEP & developing EOEP-5
 - Next Generations of operational missions
- National Bilateral : continuation of EOMAG activities





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