

# ***"Future Prospects for Satellite Environmental Information in support of Development Aid Activities"***

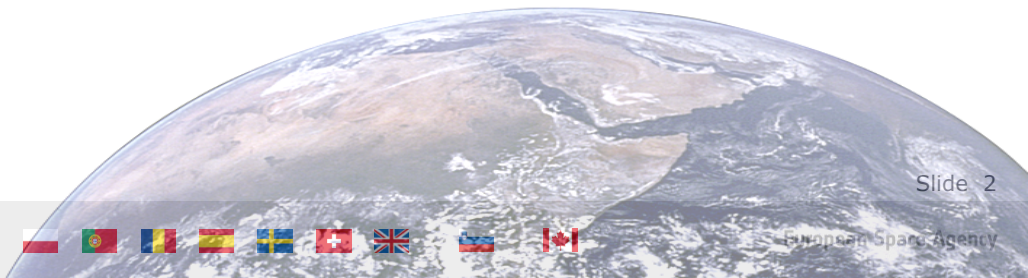
## ***Space in support of International Development Aid 'Space4IDA'***

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***ESA Earth Observation Programmes Directorate (EOP)***

11<sup>th</sup> + 12<sup>th</sup> September, ESA/ESRIN, Frascati

# ***Benefits of Satellite environmental information in Development Aid sector***



# Benefits vs Costs



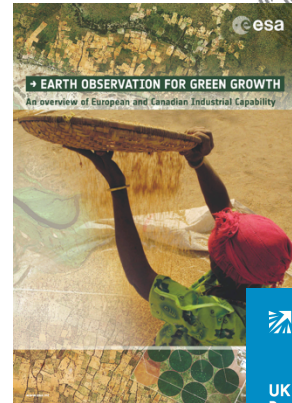
## Costs (the easy part)

- Order of magnitudes well-known, but wide range, diverse products
- Resolution -> cost-driver, but data prices falling,
- Possible (& feasible) rough model of project resources available for EO (?)  
(0.1% preparation, 1-2% implementation)

- Value-proposition could be better consolidated in Development Aid context,
- Potential role for OECD ?

## Benefits (the hard part)

1. Increased efficiencies & impact for existing operations/activities
2. Improved decision-making for future activities (planning, policy-making)
3. New / extended capabilities  
(eg. Climate & Disaster resilience),
4. Improved transparency, accountability.

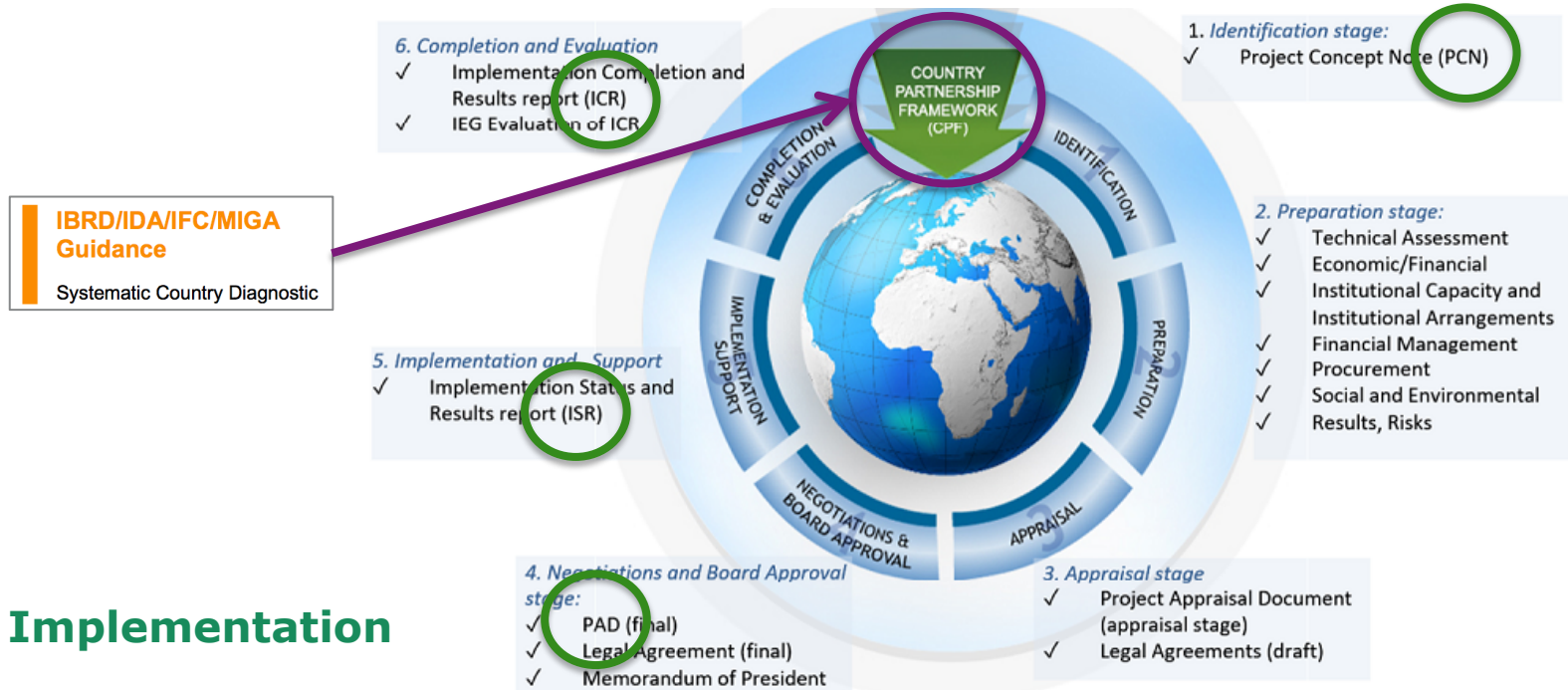


# ***Strategic Vision***

***(-> Barriers, Activities, Rationale)***



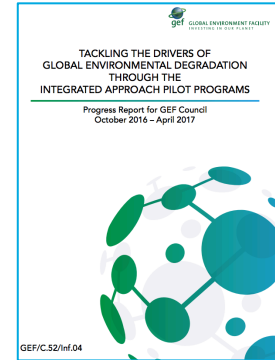
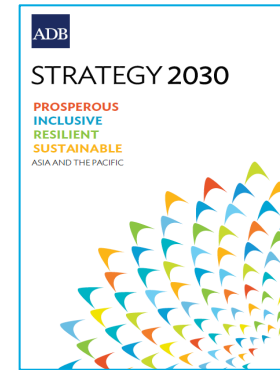
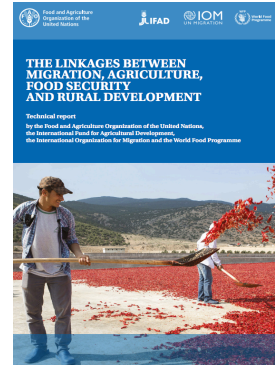
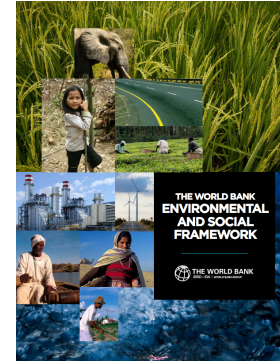
## "Transfer and mainstream environmental information from satellites into Development Aid operations, activities & financing"



Implementation

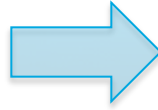
Planning

# Space4IDA Program



- 'Mainstream' -> systematic use as 'best-practice' source of information in all aspects of Development Aid,
- The Client States have to be convinced of the benefits and asking for this in loan activities,
- Will never happen without local capabilities to produce & use this source of information,
- The **only** route to long-term sustainability.
  
- Ambitious, Long-term, Far-reaching, Involves change
- Requires dedicated time & effort with activities specific to Development Aid Community -> **Space4IDA**

# Barriers



# Activities



- **Awareness**

- Lack of understanding of **what** types of environmental information can be produced and what are the benefits of its use,

- **Acceptance**

- Lack of experience **how** to use this source of information and a 'champion' to promote its use,

- **Adoption**

- Lack of capability to locally **produce & deliver** this source of information operationally and support users in uptake

- **Knowledge Development**

- Co-develop demonstration materials, & do risk-reduction developments for less innovative environmental product types (eg. *Climate & Disaster Resilience*),

- **Capacity-Building**

- Training program for Agencies, IFIs, Client States in the use of EO in operations; co-design and development of methodologies and guidelines,

- **Skills Transfer**

- Expertise and capability transfer program for satellite environmental information production & analytics in Developing countries.

# Why ESA ?

- Europe is a world-leader in the Satellite EO domain,
- ESA is a Technical Authority on Satellite technology & applications, not in business,
- ESA has developed the Scientific & User Communities for last 30 years,
- ESA has the partnerships and experience with IFIs, and is leading the institutional collaboration with the UN SDG framework, CEOS, GEO.

Technical Capacity: Open source tools & processing



Research Activities:  
90 projects & 9 Fellows



Institutional collaboration



UN-GGIM  
UNITED NATIONS INITIATIVE ON  
GLOBAL GEOSPATIAL  
INFORMATION MANAGEMENT

IAEG-SDGs

Inter-agency Expert Group on SDG Indicators

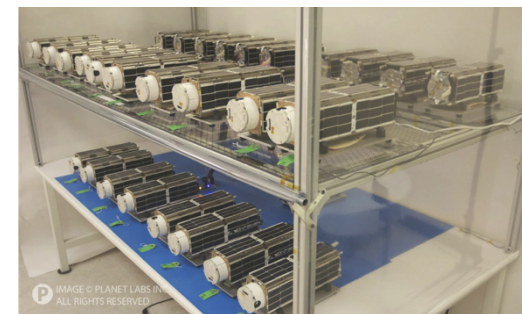
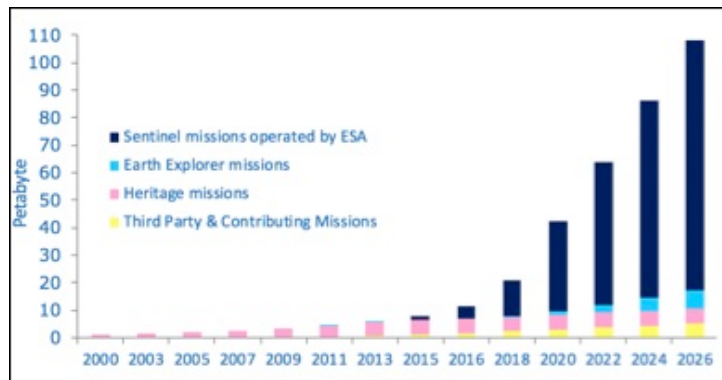
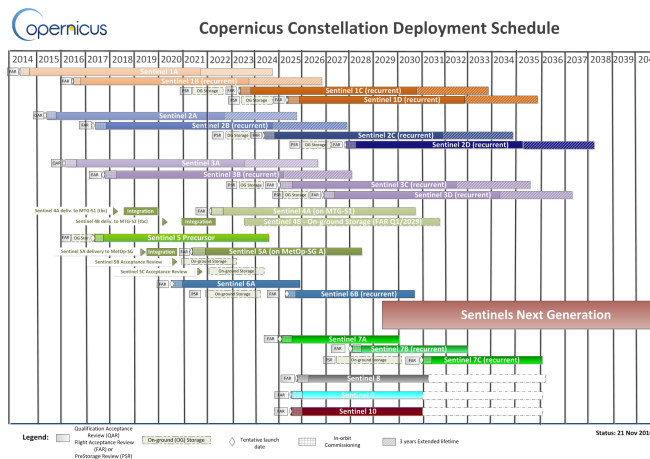
WG on Geo-spatial Information (WGGI)





# Why Now ?

- Copernicus : a game-changer : a **Tsunami** of satellite data is arriving,
- All developments & investments in place, **ready to be leveraged**,
- The emergence of **'NewSpace'** commercial operators,
- -> opening up **operational use** of EO.



# *Way Forward*



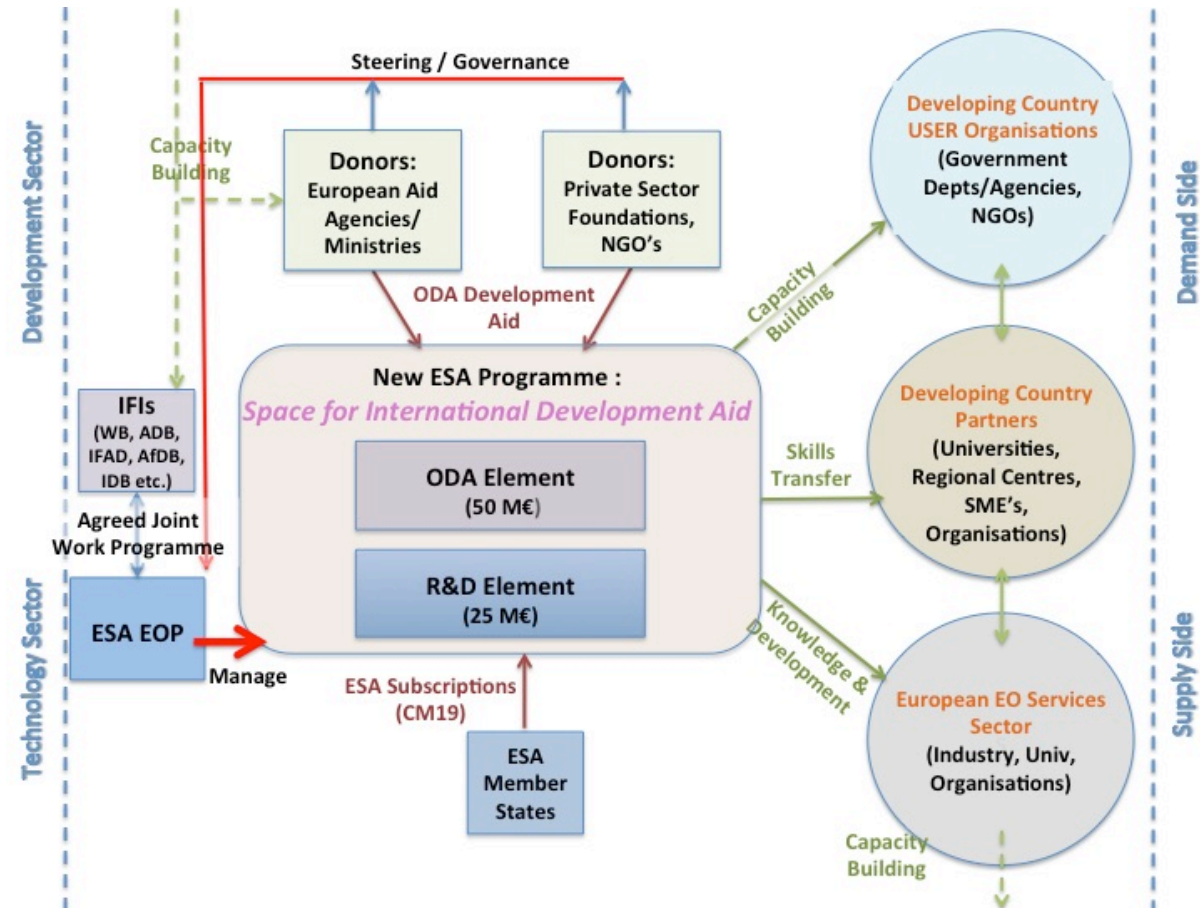
# Space4IDA : Overall Framework



- Size & duration of program : **120 – 200 M€, 2020-25**
- For activities in 3 continents : S/C America, Africa, Asia
- Scale consistent with other initiatives (IPP/G4AW/GMES&Africa/  
Mobile Comms)
- High-level breakdown between activities:
  - Knowledge Development : 20 – 50 M€
  - Capacity Building : 40 – 60 M€
  - Skills Transfer : 60 – 90 M€
- Most of resources associated with investments in developing countries (i.e. **Development Aid**)

- **Option 1** : Aid/Donor financing handled by ESA
- **Option 2** : Aid/Donor financing handled by IFIs

# Option 1 : Donor Funding handled by ESA



## Pro's

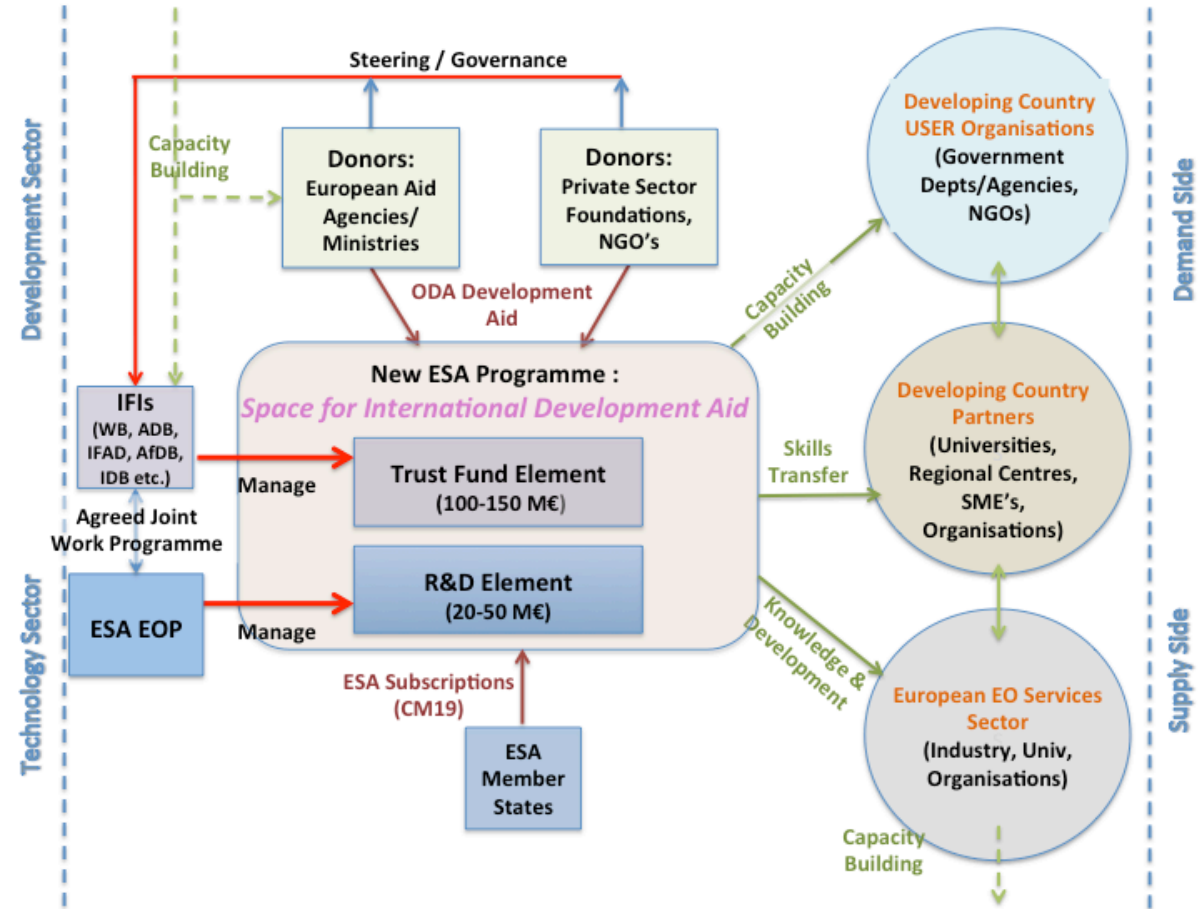
- A single program managed by a single organisation, efficient, workable.
- ESA have all the required technical competency, institutional links, track record to deliver the result.

## Con's

- ODA financing is not normal ESA business, but OECD DAC decision on eligibility as B-03 Bi-Lateral Aid with ESA as a channel (June 2018),
- No history of Aid Agencies / ESA interactions, risk of misunderstandings and lack of donors,
- IFIs are not proactively engaged, risk of not meeting strategic vision ('mainstreaming EO')



# Option 2 : Donor Funding handled by IFI(s)



## Pro's

- All organisations operating in 'business as usual' mode, ODA compliance is automatic,
- Pro-active involvement of IFIs in execution of activities,
- Trust Fund can be progressively set up as Aid Agency priorities evolve,

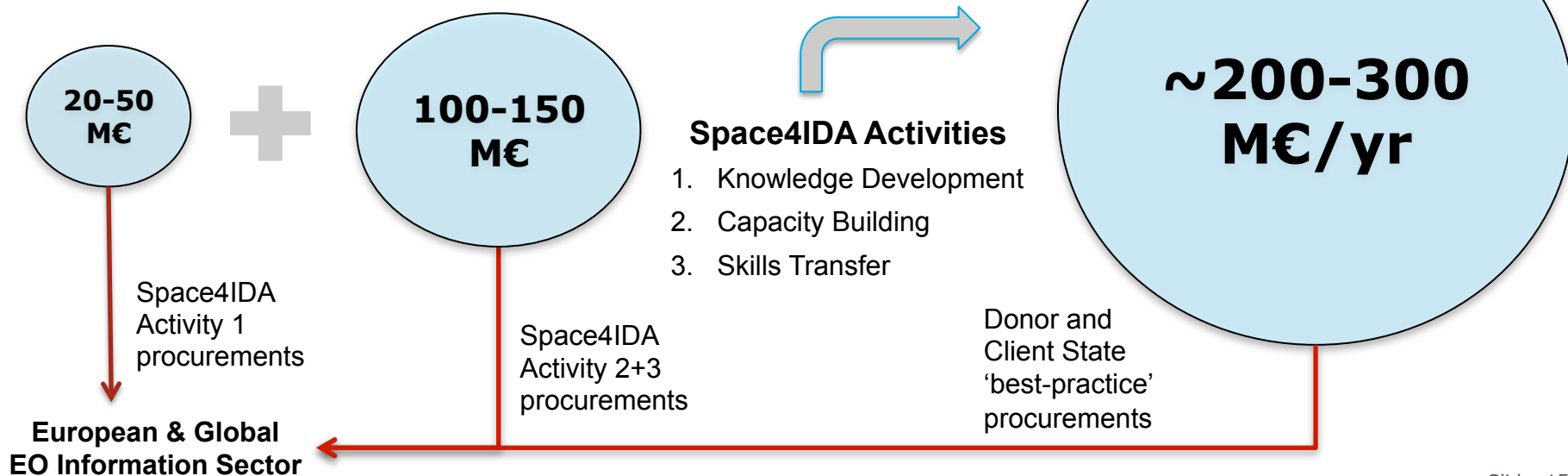
## Con's

- Trust Fund governance scheme needs to be carefully designed to ensure integrity of joint work program,
- Distributed management over 2 organisations, increased overhead and risk of delays.

# Why Invest ?



- To FULLY realise the economic & societal benefits of satellite technology,
- For ALL stakeholders : Development aid agencies/ministries, IFIs, Client States, space agencies/ministries of science/research, EO information sector.



# Implementation Issues

- Users/Partners : co-design, co-invest,
- Existing activities/facilities/results : coordinate not duplicate
- ODA compliance & reporting,
- Monitoring & Evaluation (M&E) Frameworks,
- Communication networks (ESA, IFIs)
- Geographic/Thematic Priorities :
  - *Sub-Saharan Africa, Asia (India, Myanmar, Nepal..*
  - *Climate Change, Migration, FCVs, Food Security,...*



## OECD Development Cooperation Directorate (DCD-DAC)

Single table - for 2017  
including codes for channel pilot project

Updated 29 June 2018

<http://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/annex2.htm>

Channel Parent Category	Channel ID	Year	Acronym (ENG)	Full Name (English)
	47113	2017	CEMAC	Economic and Monetary Community of Central Africa
	47034	2017	ECOWAS	Economic Community of West African States
	47036	2017	EPPO	European and Mediterranean Plant Protection Organisation
	47400	2017		European Space Agency (ESA) programme "Space in support of International Development Aid"
	47504	2017	FCPF	Forest Carbon Partnership Facility
	47040	2017	FFA	Forum Fisheries Agency
	47106	2017	DCAF	Geneva Centre for the Democratic Control of Armed Forces
	47123	2017	GICHD	Geneva International Centre for Humanitarian Demining



FACTSHEET - NOVEMBER 2008



- *Is this needed ?* (Requirements, Priorities)
- *Can it get started ?* (Financing, Timescales)

*Coffee*

- *Will it work ?* (Activities, Stakeholders)
  
- *What Next ?*