

# Space & CBRNe Threats

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*ESTEC, 07 March 2017*

# Space based Services in Support of CBRNe operations

Fully funded by ESA

up to € **250 000** per Feasibility Study (**Baseline only**)

Fully funded by ESA and European Defence Agency

up to € **350 000** per Feasibility Study (**Baseline+Option**)

## International institutional Actors

EU and UN Agencies: e.g.  
ECDC, Europol, Frontex,  
UNICRI

NGOs  
involved in  
CBRNe  
activities

International  
organisations: e.g.  
NATO CBRN CoE,  
Interpol, IAEA

European Commission  
services: e.g. DG HOME, DG  
DEVCO

## Commercial Actors

Companies using  
technologies originally  
developed for CBRNe  
applications in other  
domains for different  
applications.

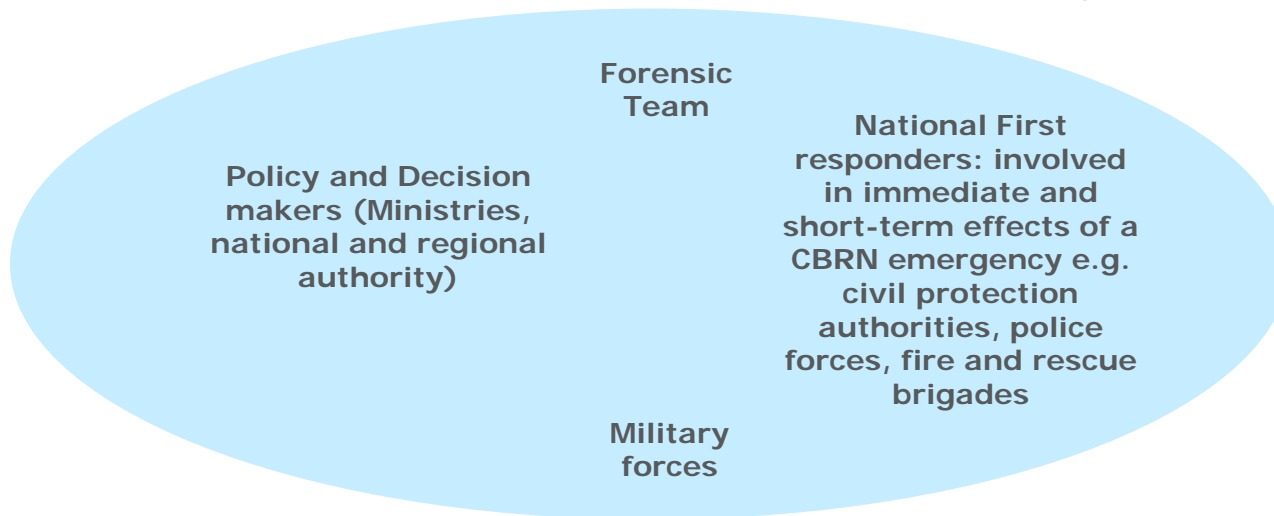
Companies  
offering CBRNe  
training courses

Companies that can be  
seen as potential  
target of CBRNe  
threats

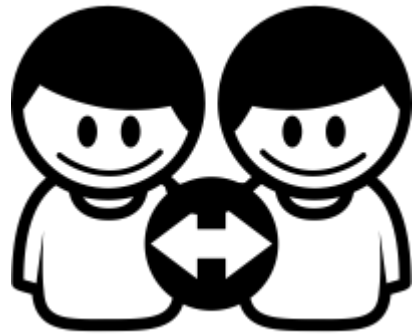
Insurance  
companies  
dealing with  
risk of CBRNe

# User communities *(Option)*

## National Stakeholder Community



EDA support



	Minimum level of required user engagement
<b>Baseline</b>	One Expression of Interest either from International Institutions or from Commercial Entities
<b>Baseline+Option</b>	One expression of Interest from representative of National Stakeholder Community+ Minimum level of required user engagement for the Baseline

Expression of interest shall be provided with the Proposal

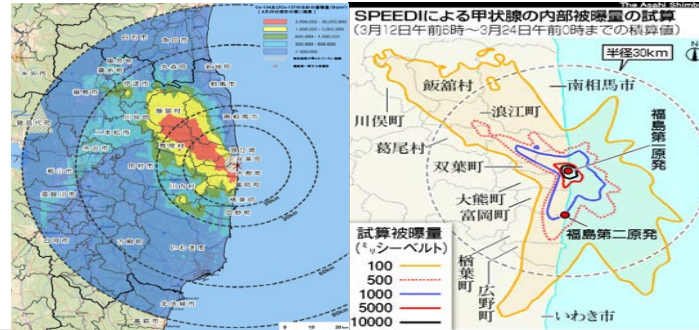


	Service Opportunity	Service Features
<b>Baseline</b>	Target is to address two service opportunities.	To be done during the study with the User Community involved by the Contractor
<b>Baseline+Option</b>	Target is to address three service opportunities.  At least one must be selected amongst the services identified by the involved NSC.	Preliminary definition done by involved NSC and described in the Statement of Work.

# 1) Service of interest for NSC: Dispersion of toxic cloud and environmental assessment

Space can be a key element in services for prediction of spread of nuclear/radiological/chemical material, based on GIS information, weather data, sensor data and plume calculation models:

- ✓ Plume calculations based on real-time weather forecast data enables results even before incident and can be displayed and shared to authorities immediately when needed
- ✓ Model needs accurate land cover analysis and urban dispersion algorithm
- ✓ Plume modeling output can be used in crisis management e.g. to decide the evacuation route



## 2) Service of interest for NSC:

# Fusion of sensors in network for threat monitoring and agent identification

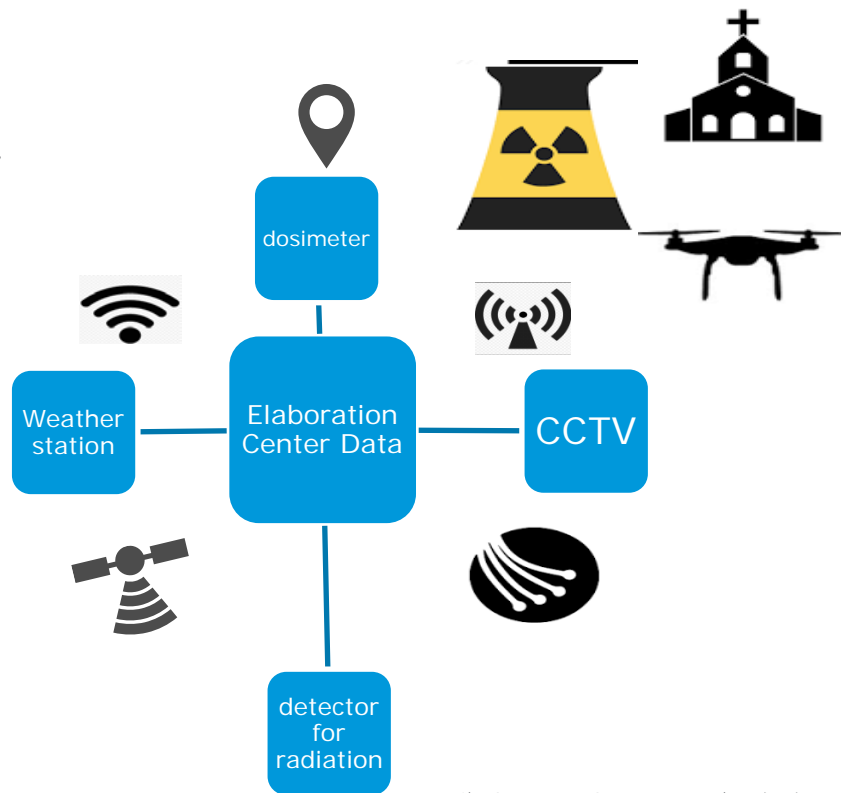
Space can be a key element in services for improving monitoring and detection capabilities and provision of early warning.

Need for:

SATCOM :live streaming of images, data transfer, voice communications.

SATNAV: geo-tagging data, Remotely Piloted Automatic System navigation

SatEO: Real-time weather data.





### 3) Service of interest for NSC:

## Rapid assessment of a bio-threat for analysis and diagnosis

Space can be a key element in services for supporting team called to intervene on site to work safely in order to firstly detect and identify which category the B agent belongs to.

Need for:

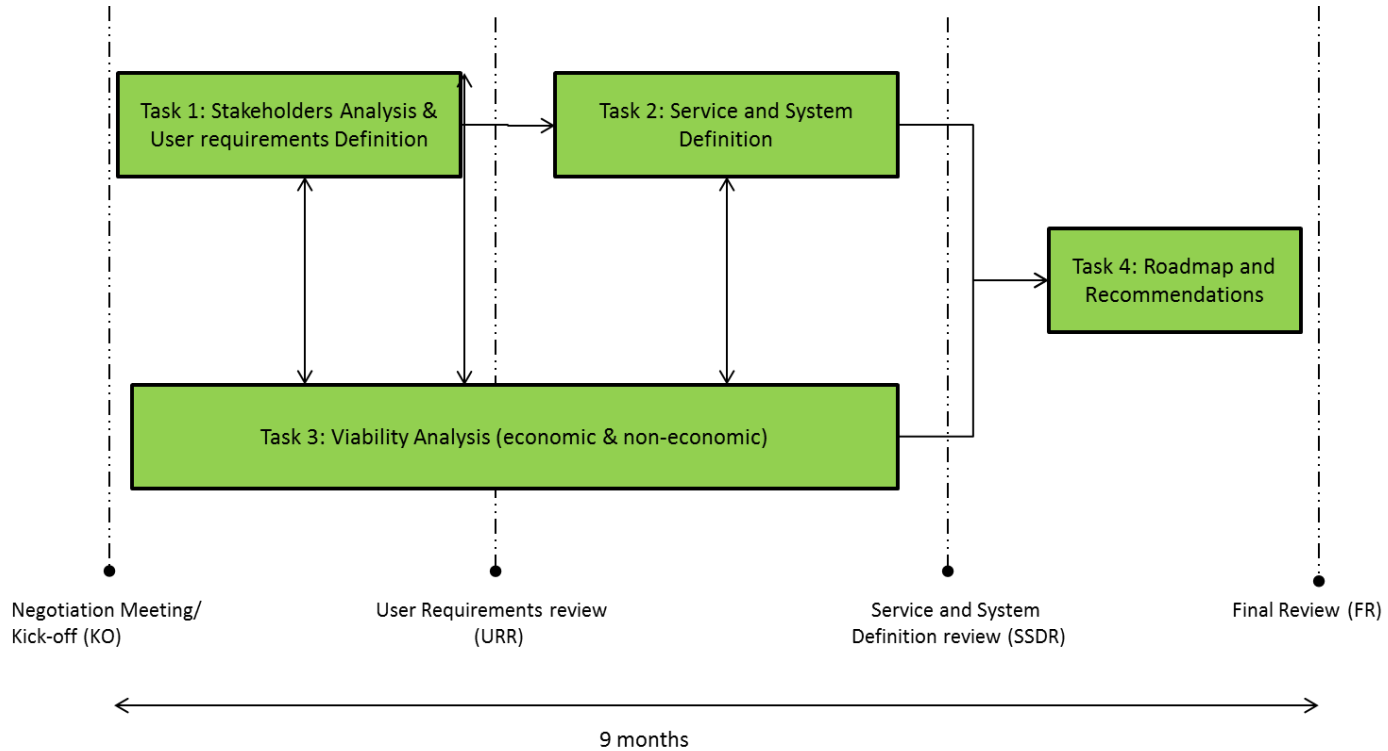
SATCOM: live streaming of images, data transfer, voice communications.

SATNAV: Collected samples need to be geo-located

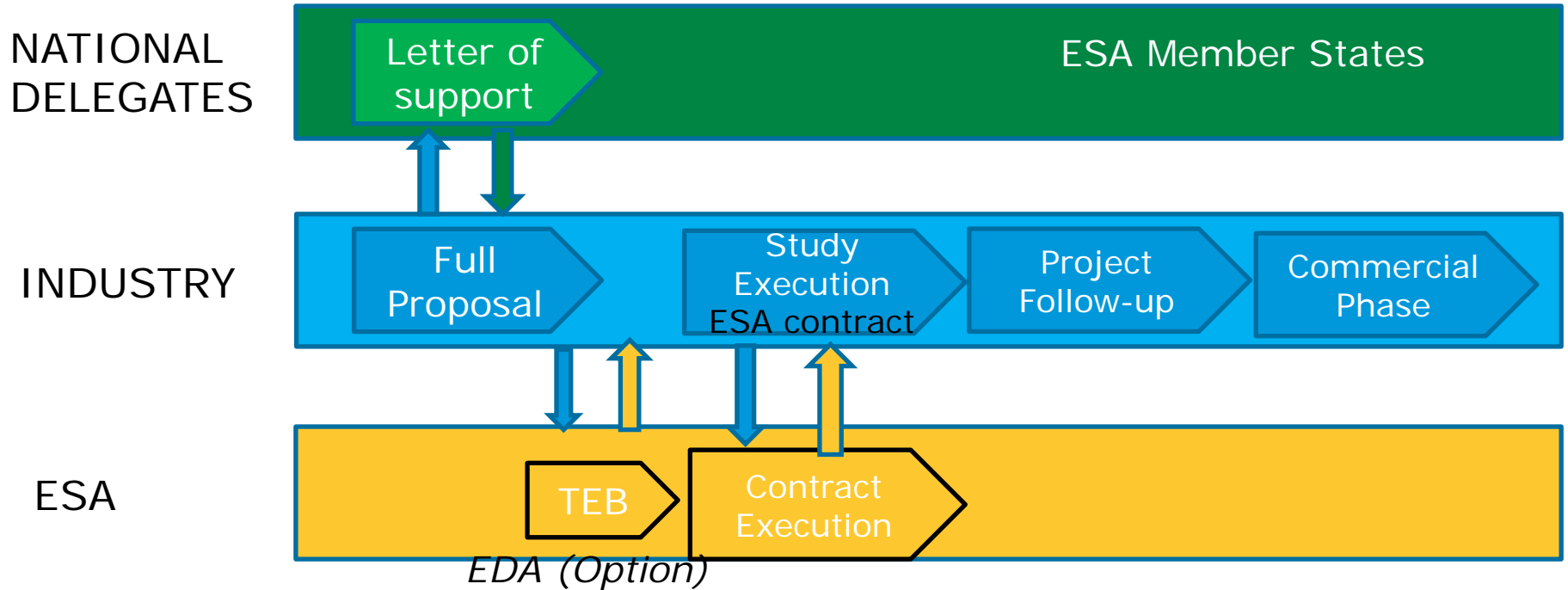
SatEO: site investigation, improve situation awareness



# Feasibility Study Logic



# Study Lifecycle & ESA Processes



**TEB= Tender Evaluation Board**



# Express your interest on EMITS



**esa** emits

ENTITIES    ESA Home Page    Industry Information    Your Entity Details    User Preferences    Se

User: bbarresi - Normal User

## ESA Intended Invitation To Tender

**emits**

**→ INVITATIONS TO TENDER PUBLISHED**

Hosted by ESA

Rel. 7.5.4.0

**Directorate:** Directorate Telecom & Integrated Applica

- News
- Procurement Review Board
- Direct Negotiation
- Restricted Competition
- Open Invitations to Tender
- Intended Invitations to Tender
- Reference Documentation
- ECOS Resources
- Search Invitations to Tender

- FS

PT+RO



# When the ITT is Open



-You will be notified if you have expressed an interest.

-EMITS will be the access point to acquire the relevant documentation:

- Cover Letter;
- Special Conditions of Tender;
- Statement of Work;
- Draft Contract



# Bidding Process



1. Prior to submitting a Full Proposal, the Prime and all subcontractors must **register** as potential bidders via [esa-star](https://esa-star.esa.int). This process needs to be started as soon as possible, as it will take time to complete.

2. Submission of a Full Proposal

3. Evaluation of proposals results in a recommendation for one (or more) winning bid.



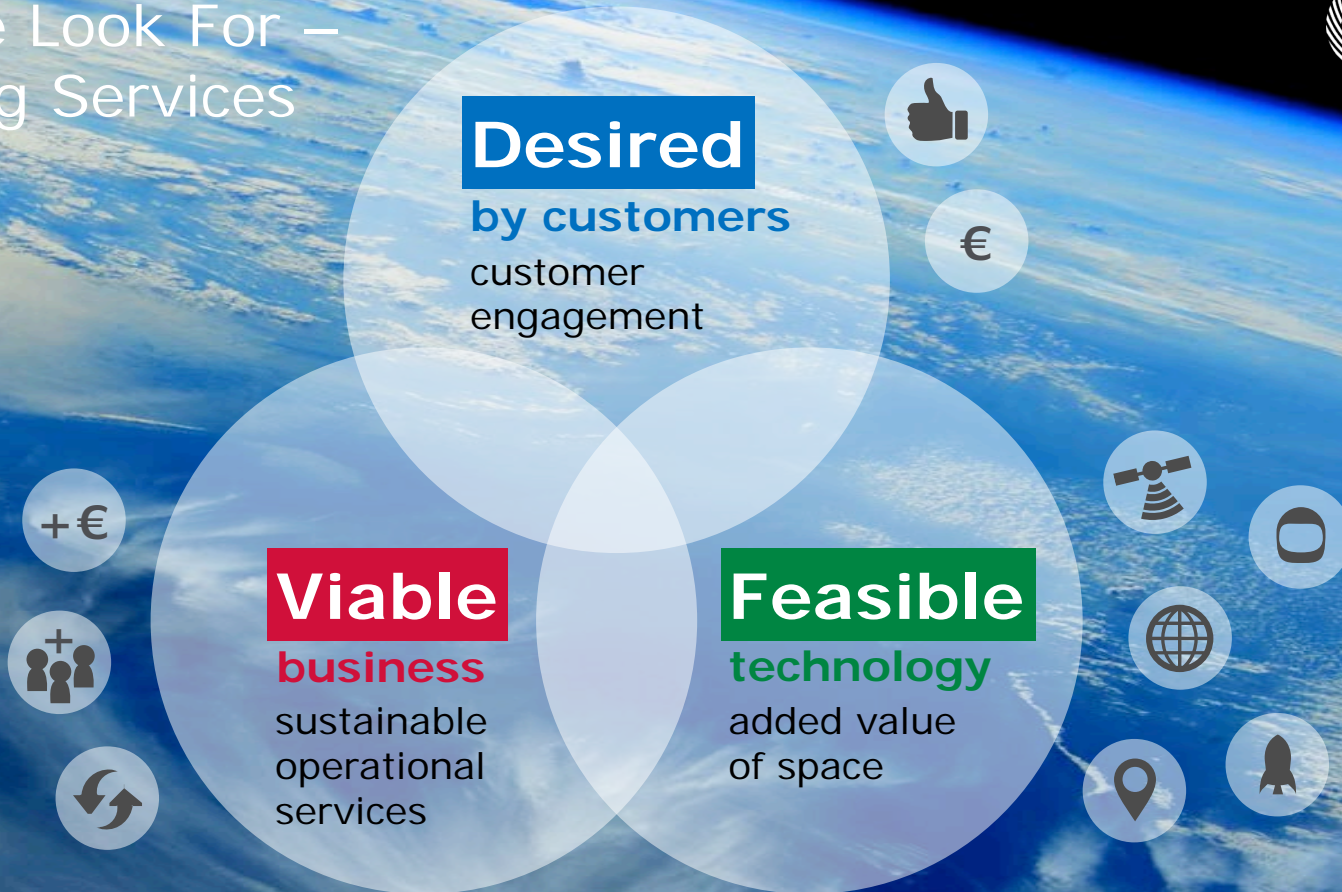
## **Business expertise**

Business Development, Service Provisioning, Business Model Creation, etc.

## **Domain expertise**

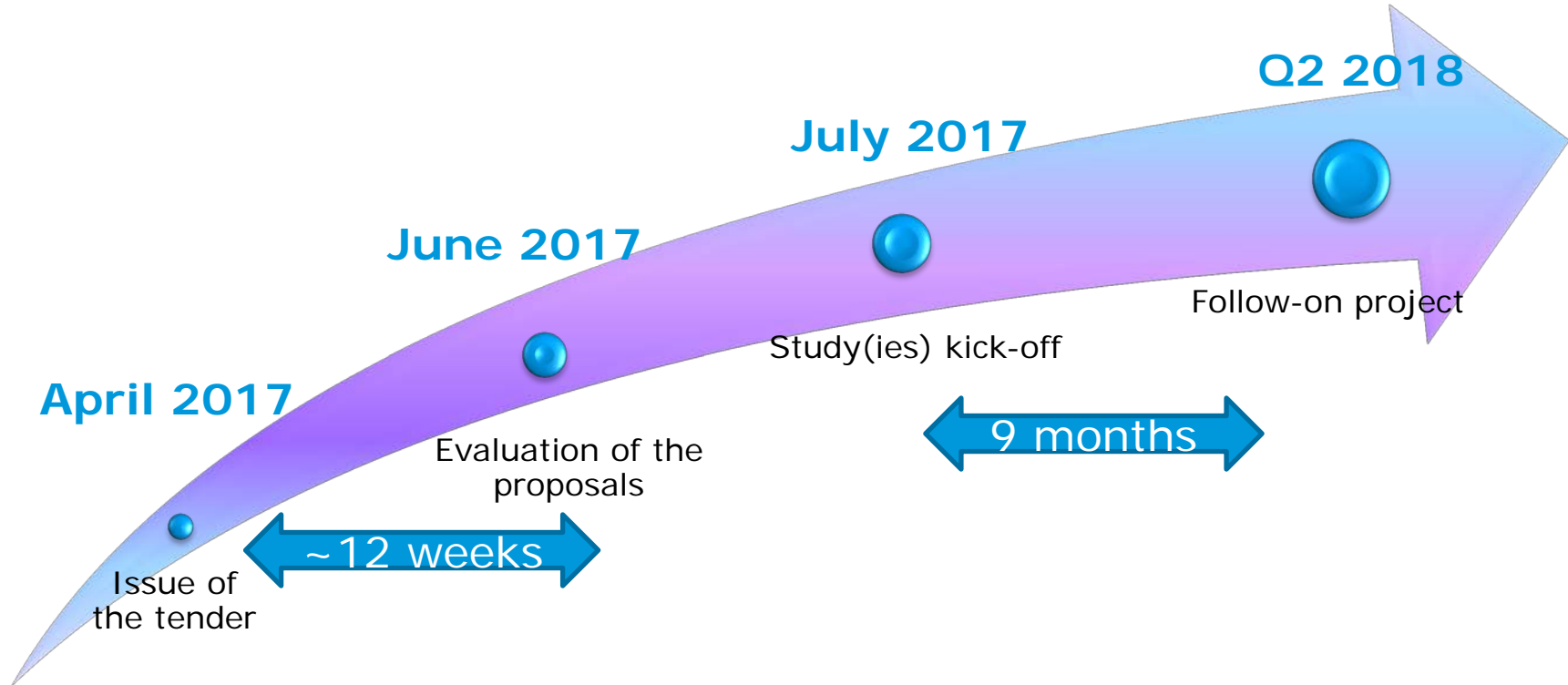
Customers access and engagement, market landscape and trends, technological and development expertise, etc.

# What We Look For – Promising Services





# Tentative Schedule



# Contact



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*“Space is the Limit”*

*Thank You!*