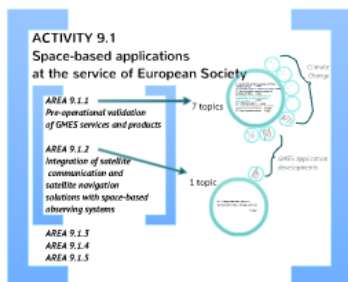
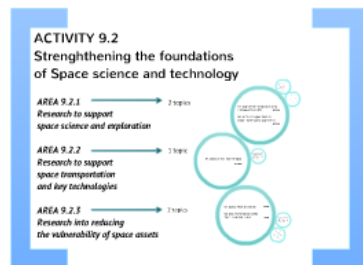


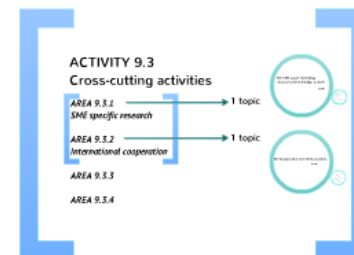
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# 9.2



# 9.3



REPUBLIKA SLOVENIJA  
MINISTRSTVO ZA IZOBRAŽEVANJE,  
ZNANOST, KULTURO IN ŠPORT

## 6. razpis Vesolje v okviru 7.OP

**Petra Žagar**

Direktorat za visoko šolstvo in znanost  
Sektor za znanost  
NCP za Vesolje

GZS, 3. julij 2012



### 6. RAZPIS:

CALL ID: FP7-SPACE-2013-1  
datum objave razpisa: 10.7.2012  
predviden budget: 126 M €



Projekt je financiran s strani Evropskega parlamenta in Evropskega sveta

Rezultati 5. razpisa:

sredstva: 84 M€  
predlogi: 189 prejetih  
eligible: 187 predlogov (99%)  
čez prag: 139 predlogov (74%)  
sofinanciranih oz. v postopku pogajanj:  
43 (23% eligible & 31% threshold)

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**datum objave razpisa: 10.7.2012**

**predviden budget: 126 M €**

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21.11.2012,  
17:00 CET**

podatki o razpisu dostopni na strani "Participants Portal":

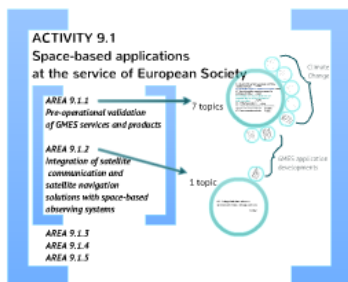
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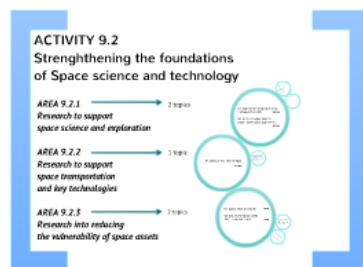
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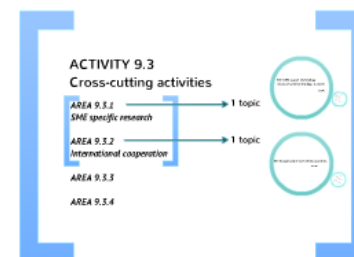
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# ACTIVITY 9.1

## Space-based applications at the service of European Society

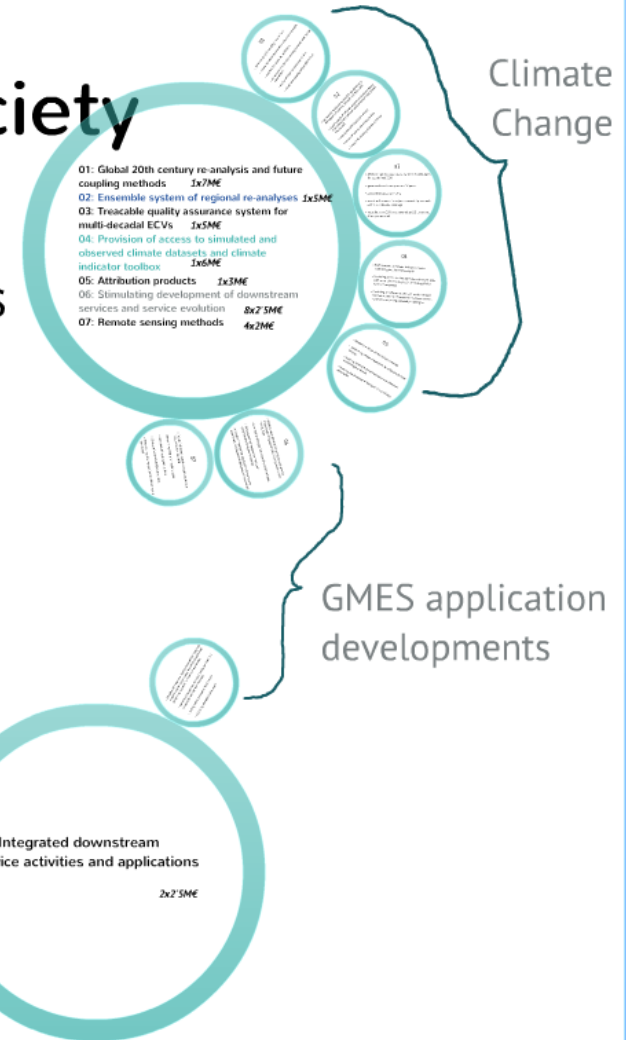
**AREA 9.1.1**  
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7 topics

**AREA 9.1.2**  
*Integration of satellite communication and satellite navigation solutions with space-based observing systems*

1 topic

**AREA 9.1.3**  
**AREA 9.1.4**  
**AREA 9.1.5**





# Society

# CS

**01: Global 20th century re-analysis and future coupling methods** *1x7M€*

**02: Ensemble system of regional re-analyses** *1x5M€*

**03: Traceable quality assurance system for multi-decadal ECVs** *1x5M€*

**04: Provision of access to simulated and observed climate datasets and climate indicator toolbox** *1x6M€*

**05: Attribution products** *1x3M€*

**06: Stimulating development of downstream services and service evolution** *8x2'5M€*

**07: Remote sensing methods** *4x2M€*

• re-anal.  
• liaison w/...

**02**

- use ensemble techniques to quantify uncertainty in atmospheric modeling, inherent in historic data
- exploit results of different regional re-analyses, taking into account interactions between components of earth system
- note sparse data during pre-sat era
- realise efficient access means to data
- liaison with ongoing projects/initiatives

**03**

- develop rigorous quality assurance method for sat-derived ECVs
- generated consistently across 30 years
- apply GCOS quality criteria
- combine 2 aspects in project: traceability and multi-decadal coverage
- note: focus on ECVs not covered by CCMA directly measured...

**04**

- R&D towards a climate indicator combining two interlinked tasks
- providing access to simulated and observed data with a set of necessary tools, including 'purpose' metadata
- providing a software toolbox to develop indicators, able to characterise extremes suited for assessing adaptation strategies

**05**

- develops a series of attribution products
- performing model projections for different climate forcing
- studying historical extreme events and potential anthropogenic causes
- studying the evidence of changes in risk of their occurrence

# 01

- global re-analysis covering 1900 to 2012
- to provide consistent historical climate data records
- requires data recovery and rescue
- re-analysis is to include coupling between earth system components
- realise efficient access means to data
- liaison with ongoing projects/initiatives

# 02

- use ensemble technique to quantify uncertainties in atmospheric modeling, inherent in historic data
- exploit results of different regional re-analyses, taking also interactions between components of earths system into account
- note sparse data during pre-sat era
- realise efficient access means to data
- liaison with ongoing projects/initiatives

# 03

- develop rigorous quality assurance methodologies for sat-derived ECVs
- generated consistently across 30 years
- apply GCOS quality criteria
- combine 2 aspects in project: traceability methods and multi-decadal coverage
- note: focus on ECVs not covered by CCI, those not directly measured...

# 04

- R&D towards a climate indicator service combining two interlinked tasks
- providing access to simulated and observed data with a set of necessary tools, including 'fit for purpose' metadata
- providing a software toolbox to derive climate indicators, able to characterise extreme events, suited for assessing adaptation strategies

# 05

- develops a series of attribution products
- performing model projections for different climate forcing
- studying historical extreme events and potential anthropogenic causes
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# 06

- develop next generation products and service lines, exploiting space data in conjunction with in-situ data
- turn methodologies into operational prototypes
- demonstrating integration into user practices/working environments
- a range of interesting application domains are mentioned, and essential elements to be covered



# 07

- improving object based analyses/automatic interpretation methods
- combining different imagery types
- new uses of hyperspectral data
- EO exploitation of GNSS signal data
- different interesting application domains are mentioned

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## Space-based applications at the service of European Society

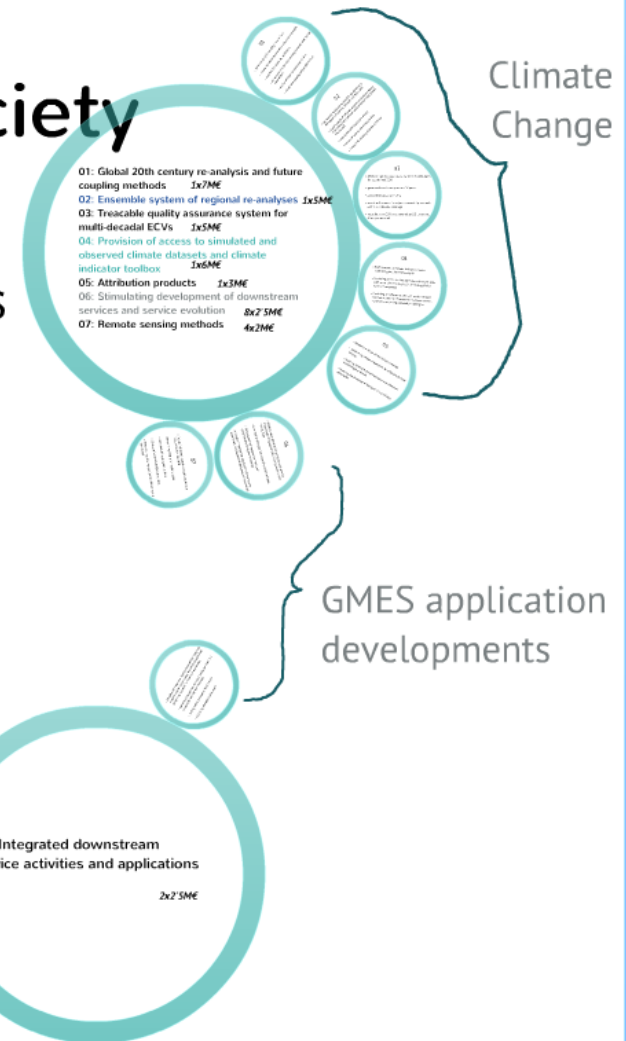
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**AREA 9.1.3**  
**AREA 9.1.4**  
**AREA 9.1.5**



# Topic

- de. struk.
- strong A.
- valuating c.

## 01: Integrated downstream service activities and applications

*2x2'5M€*

- develop services and applications which integrate satcom and/or satnav solutions with space based observing systems in innovative products
- demonstrate delivery of sustainable services in a structured service environment
- strong focus on operationalisation
- validating concepts with users

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## Space-based applications at the service of European Society

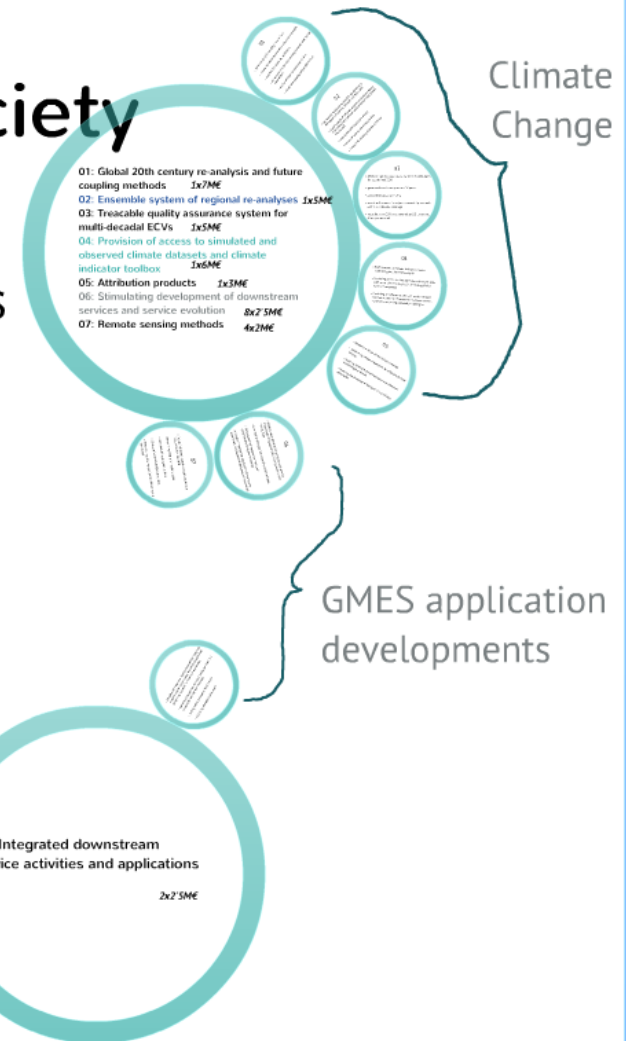
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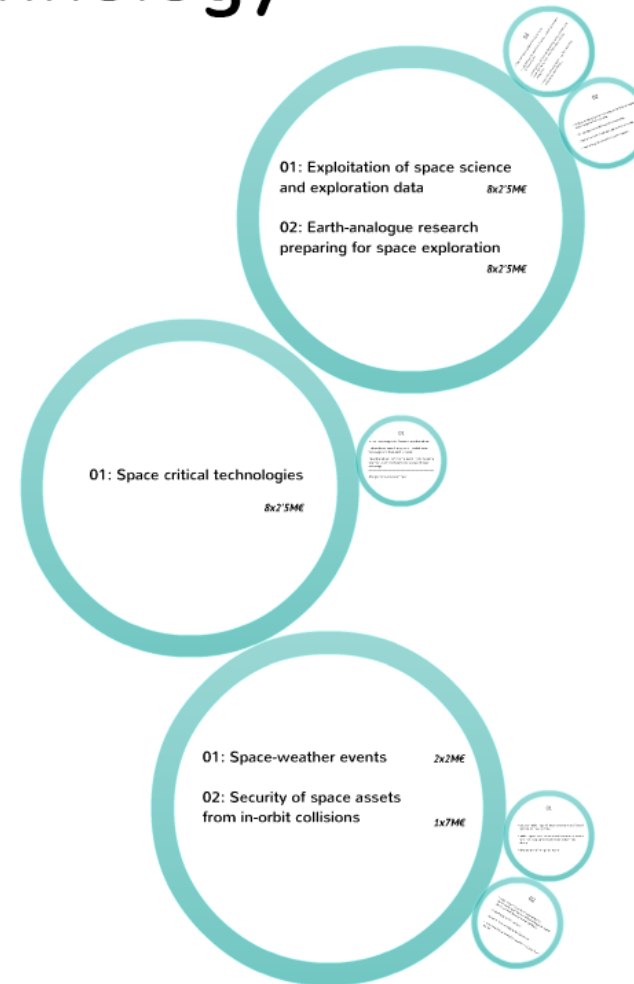
# ACTIVITY 9.2

## Strengthening the foundations of Space science and technology

**AREA 9.2.1** → 2 topics  
*Research to support space science and exploration*

**AREA 9.2.2** → 1 topic  
*Research to support space transportation and key technologies*

**AREA 9.2.3** → 2 topics  
*Research into reducing the vulnerability of space assets*



- focus on space PhD
- exploring data archive of instruments
- adding value to data by combing with non-space data, data from disciplines
- new data handling tools - e.g. for access, processing, visualizing...

02

- focus is on utilizing environments on earth to simulate extreme space environments
- for validation of systems and components
- research on life in extraterrestrial environments
- researching human performance in space

**01: Exploitation of space science and exploration data** *8x2'5M€*

**02: Earth-analogue research preparing for space exploration** *8x2'5M€*



# 01

- focus on space physics in widest sense
- exploiting data obtained in space - with EU missions or instruments
- adding value to data by combining space mission data with non-space data, data from other science disciplines
- new data handling tools - e.g. for accessing, processing, visualizing,...

# 02

- focus is on utilizing environments on earth to simulate extreme space environments
- for validation of systems and components
- reserach on life in extraterrestrial environments
- reseraching human performance in space

C

# 01: Space critical technologies

*8x2'5M€*

01

"critical technologies for European non-

"Independence" would imply that all nee  
technologies are developed in Europe

"Non-dependence" refers to the possibil  
have free, unrestricted access to any req  
technology

17 urgent actions to select from

# 01

"critical technologies for European non-dependence"

"Independence" would imply that all needed space technologies are developed in Europe

"Non-dependence" refers to the possibility for Europe to have free, unrestricted access to any required space technology

---

17 urgent actions to select from

**01: Space-weather events**

**2x2M€**

**02: Security of space assets  
from in-orbit collisions**

**1x7M€**

01

- accurate modelling and impact assessment systems, particularly GNSS
- modelling collision interactions of micrometeoroids and satellites (ranging from sub-atomic to 10cm debris)
- development of mitigation means

02

- performing an in-orbit removal of debris; demonstrating concepts and technologies for active debris removal (capture and contactless)
- including dynamic problems
- concept must be scalable for future use
- must show the removal of an object in 1-2 years from launch

# 01

- accurate modelling and impact assesment on affected systems, particulary GNSS
- modelling collision interactions of micro-particles with satellites (ranging from sub-atomic to dust, small debris)
- development of mitigation means

# 02

- performing an in-orbit removal of debris; demonstrating concepts and technologies for active debris removal (capture and contactless)
- including dynamic problems
- concept must be scalable for future use
- must show the removal of an object in 1-2 years from launch

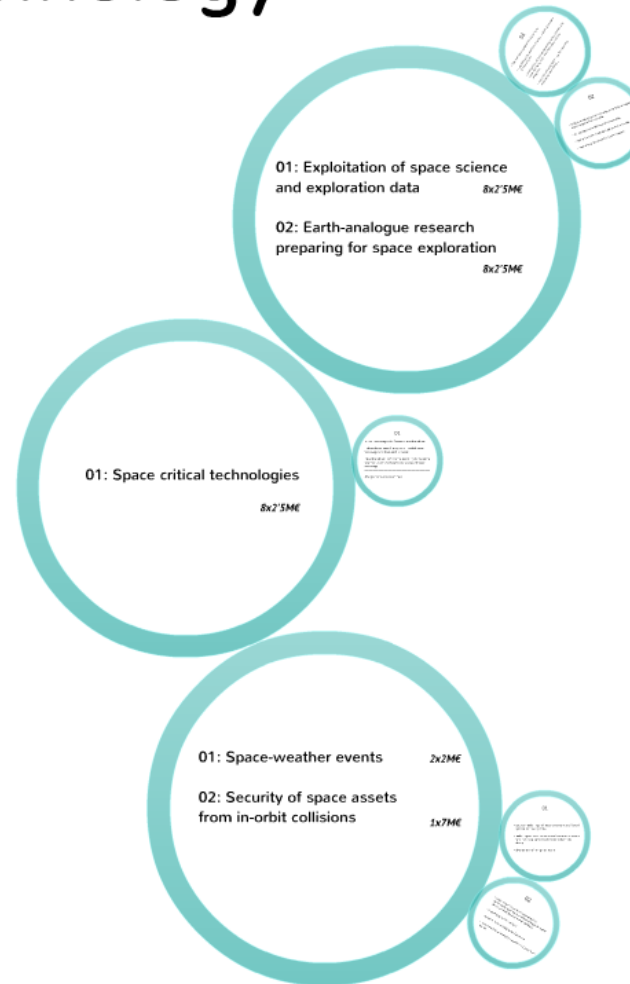
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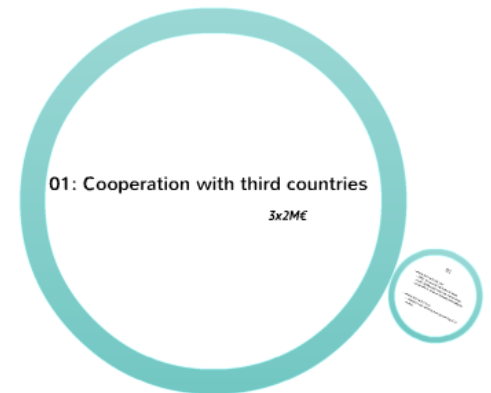
## Cross-cutting activities

**AREA 9.3.1** → 1 topic  
*SME specific research*

**AREA 9.3.2** → 1 topic  
*International cooperation*

**AREA 9.3.3**

**AREA 9.3.4**



# 01: SME space technology research and technology transfer

**5x2M€**

01

- allow SMEs to develop partnership for both GMES and SSF
  - establishing SME position in supply chains and market
  - e.g. space technology research, technologies for ground use of space data, navigation or geoinformation services
- ingimaj 50% dafet SMEev v konzorcijull*

# 01

- allow SMEs to develop partnership
- for both GMES and SSF
- establishing SME position in supply chains and market
- e.g. space technology research, technologies for ground use of space data, navigation or geoinformation services

***najmanj 50% delež SMEjev v konzorciju!!!***

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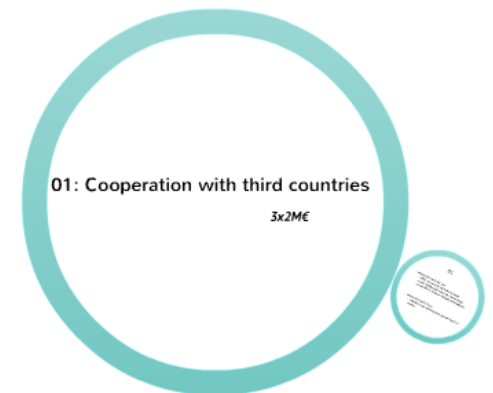
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*SME specific research*

**AREA 9.3.2** → 1 topic  
*International cooperation*

**AREA 9.3.3**

**AREA 9.3.4**



# 01: Cooperation with third countries

*3x2M€*

01

- cooperation with Ukraine:
  - GME's services for agricultural needs
  - super-lightweight materials and coatings
  - space debris removal methods/technologies
- cooperation with China:
  - validation and refinement of monitoring of air quality

# 01

- cooperation with Ukraine:
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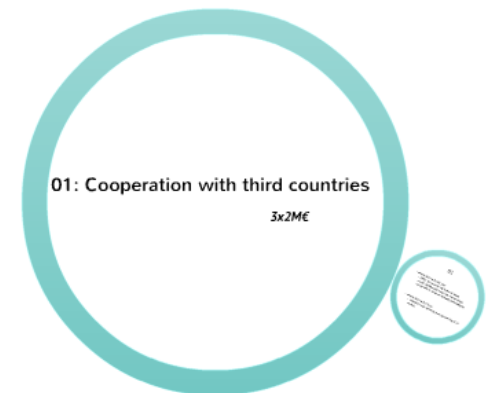
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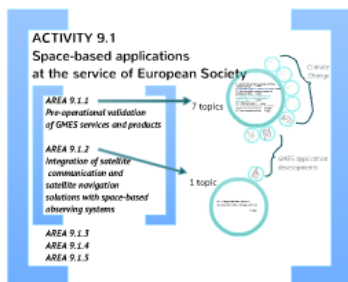
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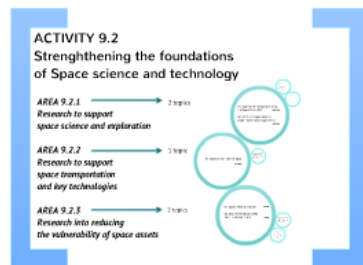
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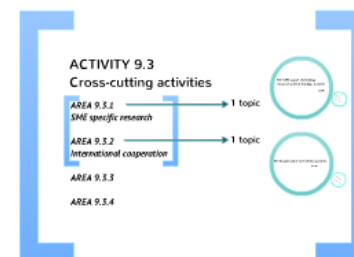
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