

**ESA Council at ministerial level  
Space19+ - Seville, 27-28 November 2019**

**Debriefing  
to the Belgian space actors  
Belgian Science Policy**

**Residence Palace, Brussels  
6 December 2019**

# Belgian Council of Ministers

## 22 November 2019

- **Process**

- Interaction with the 3 BE regional space associations (VRI, BAG, WE): 4 meetings with chairman + 1 industrial + 1 scientist
- Definition of BE level of resources
- Information meeting for BE space actors (30 Sept 2019)
- Proposal of participation to ESA programmes
- Intercab (3 meetings)

- **Decisions by BE CM**

- Level of resources for BE including a “To Be Allocated” (TBA) of 250 M€ to be confirmed by next government
- Participation to ESA programmes
- Reporting of the decisions to BE CM

# Level of resources for Belgium Period 2020-2024

- Total 2020-2024 space BE:  
 $1206.65 \text{ M€} + 250.00 \text{ M€} = \mathbf{1456.65 \text{ M€}}$ 
  - ESA
  - Intergovernmental: Eumetsat, ECMWF, ESO
  - Bilateral
  - National
  - ....

# Budget allocation

## Period 2020-2024

- General budget and previous commitments (“Inéluctables”)
  - **743.92 M€**
- New commitments for ESA programmes
  - **681.07 M€** (713.75 M€ for full duration of programmes)
  - See details here after
- New commitments for other space programmes
  - **31.57 M€** (40.15 M€ for full duration of programmes)
  - See details here after



# Council Meeting at Ministerial Level

Seville, 27-28 November 2019





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# Resolutions

- 1) Resolution on Space: The five dimensions of Space 4.0
- 2) Resolution on the Scientific Programme and the Basic Activities for Space19+ - Level of Resources for 2020-2024
- 3) Resolution on the CSG 2020-2024
- 4) Resolution on ESA programmes: addressing the challenges ahead

# Resolution on Space: The five dimensions of Space 4.0

- Space as an “Infrastructure” complements the 4 notions of Lucerne “Innovate”, “Inform”, “Inspire” and “Interact”
- The 4 pillars of ESA
  - Science and Exploration
  - Space Safety and Security
  - Applications
  - Enabling and Support
- Relations ESA-EU (cf. IMM 2018)
- ESA’s long-term plan and industrial policy



# Participation to the mandatory programmes of ESA

# Mandatory Programmes

Programme	Envelope (M€)	BE (M€)	Compared to Lucerne implementation 2020-2024
<b>Basic Activities</b>	<b>1405.00</b>	<b>38.22 (GNP<sup>1</sup>)</b>	+ 190.76 M€ ESA + 6.05 M€ BE
<b>Science Programme</b>	<b>2823.00</b>	<b>76.79 (GNP<sup>1</sup>)</b>	+ 153.90 M€ ESA + 3.88 M€ BE
<b>CSG</b>	<b>512.00</b>	<b>18.16 (3.55 %)</b>	~ Lucerne + renewal (98.00 M€) + 11.09 M€ BE
<b>Total</b>		<b>133.16</b>	+ 21.02 M€ @ new commitments BE

<sup>1</sup> BE GNP period 2018-2020 = 2.72 %

# Participation to the optional programmes of ESA

## Pillar 1 Science and Exploration

# Scientific Support

Programme	Envelope (M€)	Covered (M€)	BE (M€)	Rem.
PRODEX	open	109.20	15.00	Till 2022/2023
Future Contrib (=TBA)	open	119.30	60.00	BE, CZ, ES, CH

# Space Exploration

Programme	Envelope (M€)	Covered (M€)	BE (M€)	Rem.	
<b>E3P Period 2</b>	<b>1980.00</b>	<b>1953.25</b>	<b>74.73</b>	2020-2022	
- ExPeRT	}	}	<b>0.98</b>		
- LEO (+ SciSpaceE)			<b>1388.00</b>		<b>1357.51</b>
- BLEO					<b>22.31</b>
- Moon					<b>6.08</b>
- Mars	<b>592.00</b>	<b>595.74+</b>	<b>10.72</b>	Firewall	

+ Programme oversubscribed compared to proposed ESA envelope



# Participation to the optional programmes of ESA

## Pillar 2 Space Safety and Security

# Space Safety

Programme	Envelope (M€)	Covered (M€)	BE (M€)	Rem.
S2P Period 1	<b>(600.00)</b>	<b>5.00<sup>1</sup></b>	<b>(0.00)</b>	2020-2022
Core	<b>135.00</b>	<b>89.47</b>	<b>15.17</b>	Space Weather
Lagrange	<b>230.00</b>	<b>91.44</b>	<b>3.94</b>	EUVI
Hera	<b>140.00</b>	<b>158,35<sup>+</sup></b>	<b>22.75</b>	Follow-up of prep activities @ GSTP
Adrios	<b>75.00</b>	<b>65.7</b>	<b>0.00</b>	
Cream	<b>20.00</b>	<b>2.00</b>	<b>0.00</b>	

<sup>1</sup> To be used for activities in the 5 cornerstones

# Participation to the optional programmes of ESA

## Pillar 3 Applications

# Earth Observation (1/2)

Programme	Envelope (M€)	Covered (M€)	BE (M€)	Rem.
Future EO Period 1	650.00	544.61	18.71 (> GNP)	2020-2022
CSC-4	1402.00	1807.34 <sup>+</sup>	48.50	2020-2028
EW-InCubed+	150.00 (open)	59.61	5.46	
EW-GDA	50.00	29.16	1.36 (GNP)	

## Earth Observation (2/2)

Programme	Envelope (M€)	Covered (M€)	BE (M€)	Rem.
EW-Altius Ph.E	<b>54,03</b>	<b>53.23</b>	<b>50.33</b>	e.c. 2016 RO still expected
EW-TRUTHS Ph.1	<b>32.00</b>	<b>32.00</b>	<b>0.00</b>	2020-2022
EW-AWS	<b>42.00</b>	<b>41.80</b>	<b>0.00</b>	
EW-Proba-V Ph.E	<b>12.10</b>	<b>11.71</b>	<b>11.71</b>	e.c. 2012



# Telecoms – ARTES 4.0

Programme	Envelope (M€)	Covered (M€)	BE (M€)	Rem.
FP	35.00	23.27	0.95 (GNP)	
CC	200.00 (open)	501.30	14.72	
PP	220.00	134.00	0.00	
BASS	180.00 (open)	215.71	7.85	
5G	300.00	120.20	0.00	
4S	300.00	203.29	8.05	
ScyLight	355.00	162.51	2.41	
TBA	open	155.00	95.00	BE, ES, CH

# Navigation

<b>Programme</b>	<b>Envelope (M€)</b>	<b>Covered (M€)</b>	<b>BE (M€)</b>	<b>Rem.</b>
<b>NAVISP</b>	<b>120.00</b>	<b>72.19</b>	<b>5.89</b>	
- Element 1	<b>30.00</b>	<b>18.34</b>	<b>0.89</b>	
- Element 2	<b>60.00</b>	<b>39.85</b>	<b>2.50</b>	
- Element 3	<b>30.00</b>	<b>14.00</b>	<b>2.50</b>	

# Participation to the optional programmes of ESA

## Pillar 4 Enabling and Support

# Space Transportation (1/2)

Programme	Envelope (M€)	Covered (M€)	BE (M€)	Rem.
<b>CIP</b>				
- Ariane-6	220.00	282.41+	8.81	
- A6 Future Upper Stage	47.00	18.73	0.00	
- Vega-C	93.00	116.74+	11.78	
- Vega Evolution Prep	97.00	159.63+	16.63	
- P120-C	N/A	N/A	N/A	
<b>Vega return to flight</b>	<b>53.00</b>	<b>47.30</b>	<b>0.30</b>	
<b>FLPP - Core</b>	<b>120.00</b>	<b>155.35+</b>	<b>8.81</b>	
<b>FLPP - Prometheus</b>	<b>150.00</b>	<b>153.23+</b>	<b>6.38</b>	
<b>FLPP - Themis</b>	<b>50.00</b>	<b>35.66</b>	<b>1.96</b>	

# Space Transportation (2/2)

Programme	Envelope (M€)	Covered (M€)	BE (M€)	Rem.
Space Rider	186.00	195.73+	5.91	
CSTS	54.55	53.30	0.00	
Ariane-6 TP Step 2	256.00	263.56+	5.36	
LEAP - Ariane Sup	450.00	432.67	23.10	2020 - A5 completion
LEAP - Ariane-6	218.00	211.18	3.93	
LEAP - Vega/Vega-C	103.00	98.07	4.80	
LEAP - Ariane-5 Classical and MCO			2.87	e.c. 2016



# Technology

Programme	Envelope (M€)	Covered (M€)	BE (M€)	Rem.
<b>GSTP</b>	<b>open</b>	<b>433.75</b>	<b>24.00</b>	14.00 M€ for Cyber Security
- Develop	open	257.35	18.00	
- Make	open	96.90	4.00	
- Fly	open	79.50	2.00	
<b>TBA</b>	<b>open</b>	<b>127.00</b>	<b>95.00</b>	BE, HU, ES

# Participation to other programmes

# International

Programme	BE (M€)	Rem.
<b>ESA-NTP</b>	<b>0.57</b>	2022-2024
<b>EC-GEODE</b>	<b>5.00</b>	With BE Defence for PRS applications
<b>Bilateral-TBD</b>	<b>1.00</b>	

# National

<b>Programme</b>	<b>BE (M€)</b>	<b>Rem.</b>
<b>CVB</b>	<b>0.00</b>	Budget 2023-2028 to be foreseen at next CM-ESA in 2022
<b>STEREO-IV</b>	<b>28.15</b>	2021-2027
<b>CSL: Excellence Centre in Optics</b>	<b>1.00</b>	2021-2025
<b>CSL: Focal-7</b>	<b>5.00</b>	

# GLOBAL ESA

CM-ESA 2019 (Seville)

Mandatory Activities: **4.74 B€**

Optional Programmes: **9.65 B€**

**TOTAL: 14.39 B€**

**BE: 817.61 M€ (5.68 %)**

CM-ESA 2016 (Lucerne)

Mandatory Activities: **4.25 B€**

Optional Programmes: **6.03 B€**

**TOTAL: 10.28 B€**

**BE: 580.84 M€ (5.65 %)**

# Commitments by the ESA Member States (M€)

