



**FP7 Space projects in the Baltic.  
Results of FP7 project "Stave".**

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**Former Lithuanian Space NCP @ FP7(2007-2010)**



**Snaphistory of Space exploration  
and Space research in Baltic States  
(EE, LT, LV)**



# Estonia / Estland / L'Estonie / Estonia / エストニア



Estonia's space science dates back to 19<sup>th</sup> century and deals mainly with astronomer F. G. W. Struve:

- first measurement of stellar parallax, Vega;
- the best refractor telescope of this time was built in 1824.



# Lithuania/Litauen/Lituanie/Lituania/リトアニア



K. Simonavičius - the first person in history to conceive of the multi-stage rocket and of rocket artillery. There is an illustration, taken from the book "Arti magnae artillerae", printed in Amsterdam in 1650, depicted on the stamp. The book was used by many authors of the XVII-XVIII centuries artillery textbooks.





# Latvia/Lettland/La Lettonie/Lettonia/ラトビア



F. Zander pioneer of constructing space rockets (1887-1933).

His revolutionary ideas:

- greenhouses on spacecraft for food production and limited oxygen production;
- suggested using the earth's atmosphere for braking a spacecraft;
- first to envision the use of a solar sail as a means of propulsion.





**Part I.**  
**FP7 Space projects in the Baltic**



# FP7 Space

3 calls fulfilled:

FP7-SPACE-2007-1

FP7-SPACE-2009-1

FP7-SPACE-2010-1



## Total\* results:

Projects:

**386**

Partnerships:

**3424**

\* - aggregate per 3 fulfilled FP7 Space Calls /all Countries/

Currently opened 4th call **FP7-SPACE-2011-1**  
(Deadline 2010-11-25)

## Content of Total\* results:

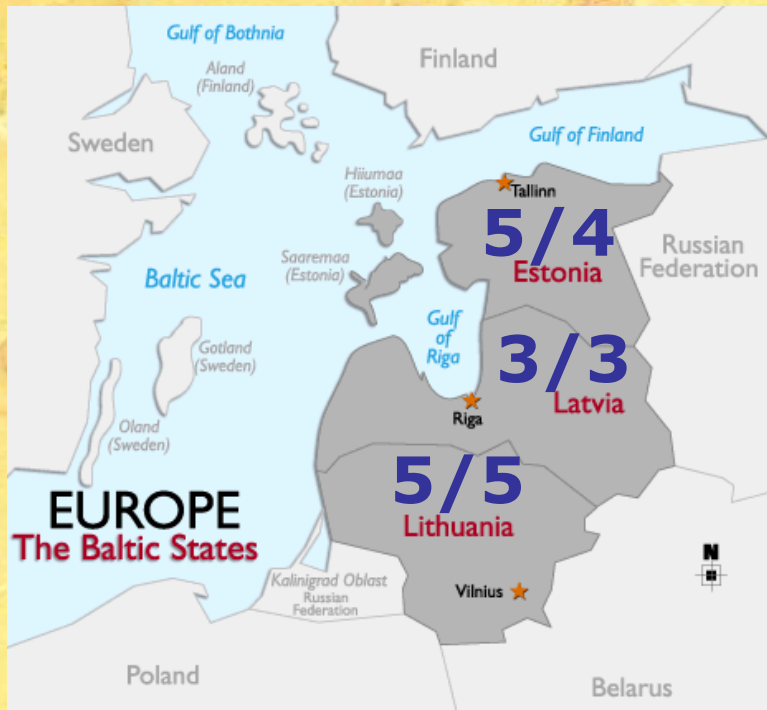
Projects / Main List / Reserve / Rejected / Ineligible  
386 / 113<sub>29,3 %</sub> / 102<sub>26,4 %</sub> / 165<sub>42,7 %</sub> / 6<sub>1,6 %</sub>

Partners / Main List / Reserve / Rejected / Ineligible  
3424 / 1225<sub>35,8 %</sub> / 1309<sub>38,2 %</sub> / 870<sub>25,4 %</sub> / 20<sub>0,6 %</sub>

Requested / Main List / Reserve / Rejected / Ineligible  
833,64 M€ / 323,7 M€ / 208,75 M€ / 294,59 M€ / 6,6 M€

\* - aggregate per 3 fulfilled FP7 Space Calls /all Countries/





## Baltic States in FP7 Space

Partners/Projects funded:

EE – 5 in 4

LT – 5 in 5

LV – 3 in 3

## Baltic States - Content of Total\* results:

Projects	/ Main List	/ Reserve	/ Rejected	/ Ineligible
<b>22</b> 386	<b>6</b> 113	<b>6</b> 102	<b>10</b> 165	<b>0</b> 6
<b>5,70%</b>	<b>5,31%</b>	<b>5,88%</b>	<b>6,06%</b>	<b>0,00%</b>

Partners	/ Main List	/ Reserve	/ Rejected	/ Ineligible
<b>36</b> 3424	<b>13</b> 1225	<b>12</b> 1309	<b>11</b> 870	<b>0</b> 20
<b>1,05%</b>	<b>1,06%</b>	<b>0,92%</b>	<b>1,26%</b>	<b>0,00%</b>

Requested**	/ Main List	/ Reserve	/ Rejected	/ Ineligible
<b>4,55</b> 833,64	<b>0,98</b> 323,7	<b>1,52</b> 208,75	<b>2,05</b> 294,59	<b>0</b> 6,6
<b>0,55%</b>	<b>0,30%</b>	<b>0,73%</b>	<b>0,70%</b>	<b>0,00%</b>

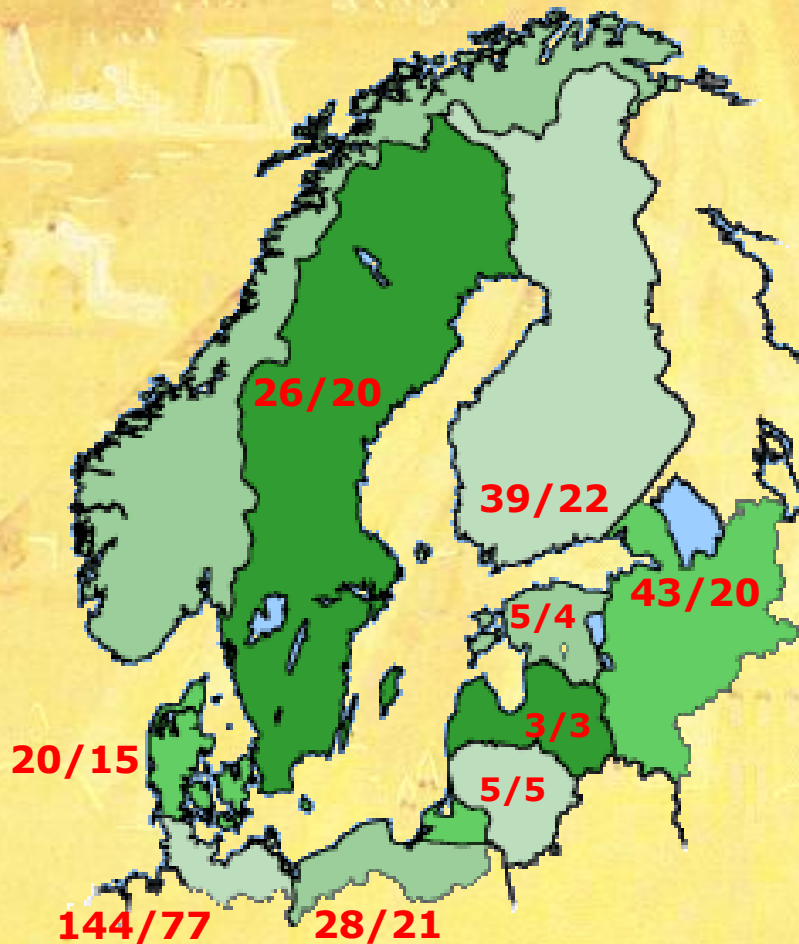
**ex. 22** 386 - 22 Baltic States projects amongst all 386 FP7 Space projects

\* - aggregate per 3 fulfilled FP7 Space Calls

\*\* - M€, millions Eur



# Baltic countries in FP7 Space



Partners/Projects funded:

EE – 5 in 4

LT – 5 in 5

LV – 3 in 3

DE – 144 in 77

DK – 20 in 15

FI – 39 in 22

PL – 28 in 21

RU – 43 in 20

SE – 26 in 20

## Baltic Countries - Content of Total\* results:

Projects	/ Main List	/ Reserve	/ Rejected	/ Ineligible
<b>307</b> <sub>386</sub>	<b>97</b> <sub>113</sub>	<b>81</b> <sub>102</sub>	<b>125</b> <sub>165</sub>	<b>3</b> <sub>6</sub>
<b>79,53%</b>	<b>85,84%</b>	<b>79,41%</b>	<b>75,76%</b>	<b>50,00%</b>

Partners	/ Main List	/ Reserve	/ Rejected	/ Ineligible
<b>788</b> <sub>3424</sub>	<b>313</b> <sub>1225</sub>	<b>200</b> <sub>1309</sub>	<b>270</b> <sub>870</sub>	<b>5</b> <sub>20</sub>
<b>23,01%</b>	<b>25,55%</b>	<b>15,28%</b>	<b>31,03%</b>	<b>25,00%</b>

Requested**	/ Main List	/ Reserve	/ Rejected	/ Ineligible
<b>190,03</b> <sub>833,64</sub>	<b>75,74</b> <sub>323,7</sub>	<b>48,54</b> <sub>208,75</sub>	<b>64,29</b> <sub>294,59</sub>	<b>1,45</b> <sub>6,6</sub>
<b>22,80%</b>	<b>23,40%</b>	<b>23,25%</b>	<b>21,82%</b>	<b>21,97%</b>

\* - aggregate per 3 fulfilled FP7 Space Calls

\*\* - M€, millions Eur



# Baltic States vs Baltic Countries

Projects	/	Main List	/	Reserve	/	Rejected	/	Ineligible
22 307		6 97		6 81		6 125		0 3
7,17%		6,19%		7,41%		4,80%		0,00%

Partners	/	Main List	/	Reserve	/	Rejected	/	Ineligible
36 788		13 313		12 200		11 270		0 5
4,57%		4,15%		6,00%		4,07%		0,00%

Requested**	/	Main List	/	Reserve	/	Rejected	/	Ineligible
4,55 190,03		0,98 75,74		1,52 48,54		2,05 64,29		0 1,45
2,39%		1,29%		3,13%		3,19%		0,00%

\* - aggregate per 3 fulfilled FP7 Space Calls

\*\* - M€, millions Eur

# Table of Participants from Baltic countries in FP7 Space

Country Institutions / Attempts\* for Partnership

DE	156	<u>375</u>
DK	16	<u>39</u>
EE	8	<u>19</u>
FI	24	<u>80</u>
LT	9	11
LV	4	6
PL	40	<u>86</u>
RU	56	92
SE	31	<u>80</u>

At least 2 partnership attempts per Institution

\* - presented Projects via EPSS



# Structure of Participants from Baltic countries in FP7 Space

Country	Institutions	/	R&D	/	Companies
<b>DE</b>	<b>156</b>		<b>71</b>		<b><u>85</u></b>
<b>DK</b>	<b>16</b>		<b>13</b>		<b>3</b>
<b>EE</b>	<b>8</b>		<b>5</b>		<b>3</b>
<b>FI</b>	<b>24</b>		<b>16</b>		<b><u>8</u></b>
<b>LT</b>	<b>9</b>		<b>7</b>		<b>2</b>
<b>LV</b>	<b>4</b>		<b>4</b>		<b>-</b>
<b>PL</b>	<b>40</b>		<b>29</b>		<b>11</b>
<b>RU</b>	<b>56</b>		<b>51</b>		<b>5</b>
<b>SE</b>	<b>31</b>		<b>20</b>		<b><u>11</u></b>

More than 30% of Participants are Companies



**Part II.**  
**Results of FP7 project "Stave"**



# *Presentation of STAVE project*

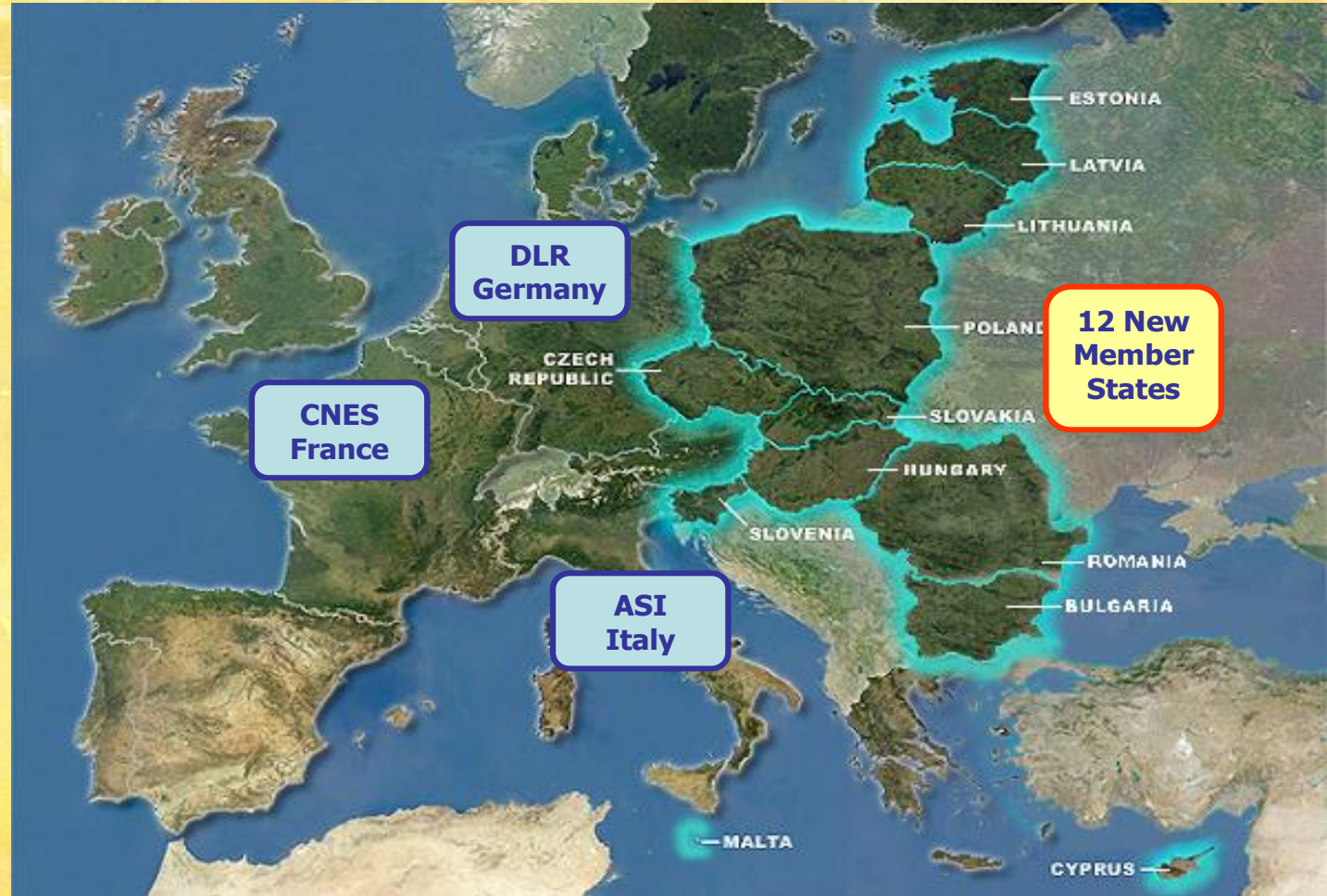
**S**pace **T**ransportation **A**ssets **V**alorisation in **E**urope

*On behalf of Michel Pons CNES/DLA*





# IDENTIFICATION and VALORISATION of existing space-skills in 12 EU New MS





# **IDENTIFICATION and VALORISATION of existing space-skills in 12 EU New MS**

## **Within:**

**Industries;  
SME;  
Research organizations;  
Institutes;  
Universities;  
Laboratories and etc.**

## **GOAL**

**Increasing level of participation of these entities for:**

- favoring innovation;**
- taking profit of all existing european capacities;**

**=> Reinforcing european independent and affordable access to space**

# STAVE's General Objective

Contact the most possible entities in NMS

Set up of an efficient **network**

Present the ST needs and arouse interests

Hold presentation **workshops** in each NMS country

Evaluate skills and elaborate **guidelines** for optimising the use of existing skills

**Visit** volunteer entities in NMS countries and give them **hints** to valorise their skills

Disseminate **guidelines** among eastern and western Europe Space Transportation actors



**Workshops took part at 10 NMS.**

**STAVE's presentation Summary:**

**General Introduction of Space transportation;**

**Space transportation disciplines;**

**Space Transportation Technologies;**

**Scientific Disciplines;**

**Project Phasing;**

**Space Transportation Specificities;**

**Conclusion**

**In total 140 slides. Presentation was available on the web.**



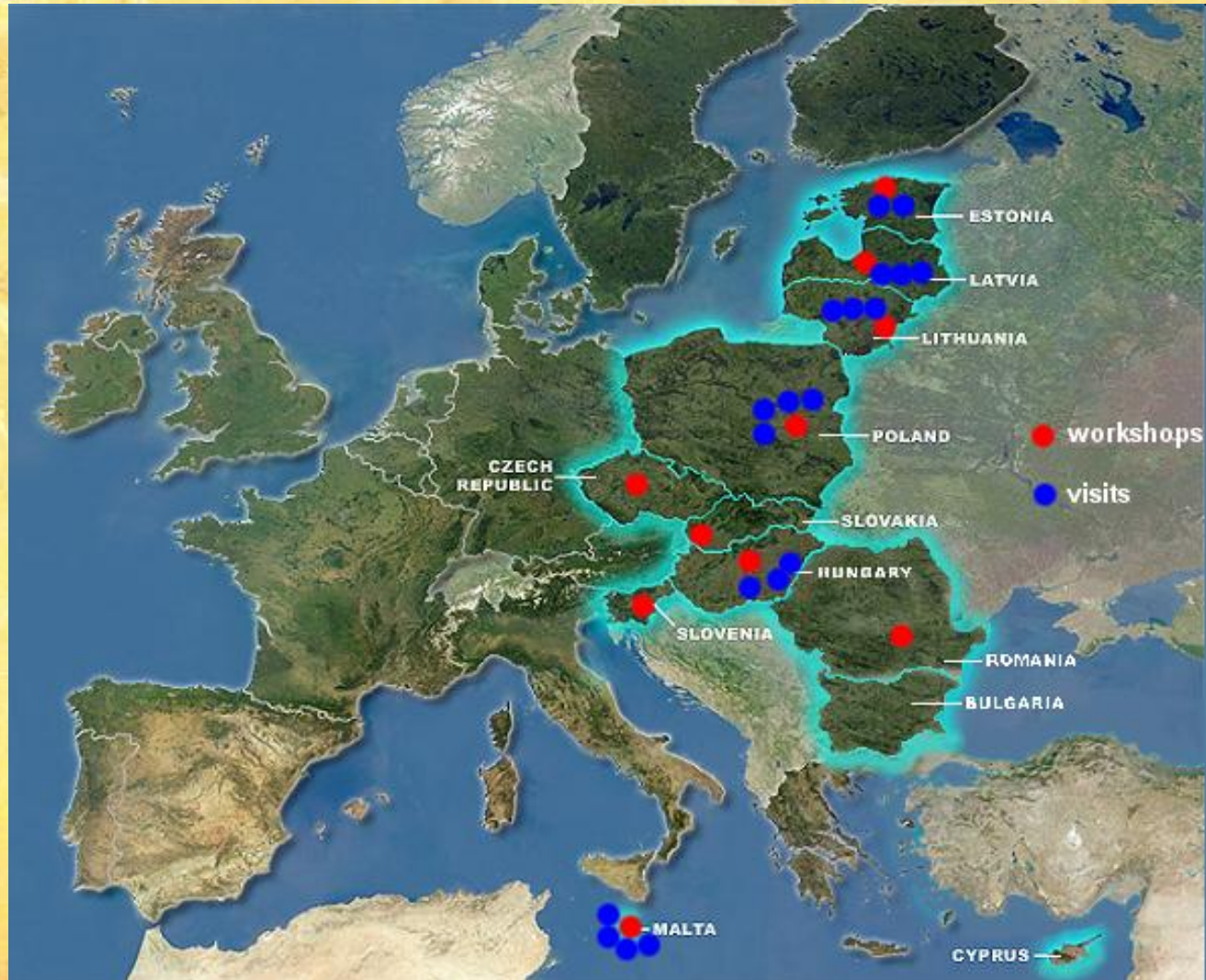
## **NMS were inquired and Q&A forms evaluated**

76 questionnaires have been received.

Hungary	16 questionnaires
Lithuania	15 questionnaires
Latvia	11 questionnaires
Malta	10 questionnaires
Poland	8 questionnaires
Czech Republic	5 questionnaires
Slovenia	4 questionnaires
Estonia	3 questionnaires
Romania	2 questionnaires
Bulgaria	1 questionnaire
Slovakia	1 questionnaire



# STAVE organized 15 complementary visits





## **STAVE's Conclusions :**

**> 1000 contacts, ~ 400 workshop's participants and 76 evaluations are published.**

- some interesting technical activities identified;**
- more Research than Industry entities replied;**
- very few entities already involved in space activities;**
- Some niches found (historical situation).**

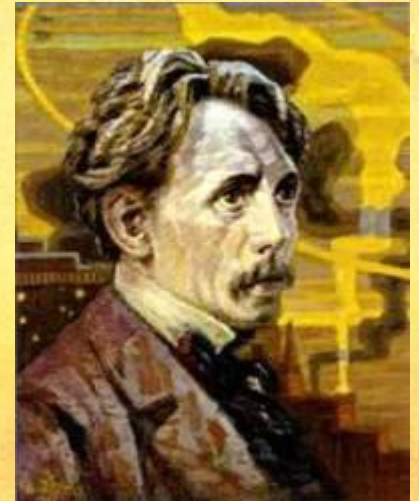
- STAVE made it for facilitating your cooperation with these entities and favour innovation;**
- contributes to EUROPE-2020 strategy;**
- STAVE is available to anybody requesting it;**
- the right of use is granted if you name the STAVE project when using these results.**

**For obtaining the STAVE final report**  
[michel.pons@cnes.fr](mailto:michel.pons@cnes.fr) or [www.stave-fp7.eu](http://www.stave-fp7.eu)





**In the background of presentation were used transformations of paintings of famous Lithuanian painter M. K. Čiurlionis, first world's painter portraying Earth from Space, 135<sup>th</sup> anniversary of the birth was just two weeks ago.**





**Thank you for your attention!**

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