Creation of a Regional Educational Centre for Space Science and Technology

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Roscosmos comprises of 98 enterprises employing more than 200,000 people.

- Rocket & Space Industry
- Space rocket & spacecraft manufacturing
- Ground Test Facilities
- Space rocket testing
- Design and R&D
- Rocket & Space Industry
- Spaceport
- National system of launch vehicles
- Plesetsk, Baikonur (rent), Vostochny

- Ground stations
  - (15 Command & Tracking Stations, >100 Command & Tracking Systems)
  - Spacecraft control
  - Receiving & and primary data processing
  - Downlink stations, subscribers’ terminals

- Social and economic domain;
- Scientific research;
- National security;
- International cooperation

- Application of space activity outputs

- 128 spacecraft deployed over the last 10 years
### THE RUSSIAN FEDERAL SPACE PROGRAMME: RESULTS AND PROSPECTS

#### 2015

**SPACECRAFT**
- Communication, broadcasting and relay: 32
- Earth observation: 8
- Fundamental space research: 1

**HUMAN FLIGHTS**
- ISS RS modules: 5
- Soyuz-TMA: 2
- Progress-M: 1

**Total 128 SC launched within 10 years.**

**Groundwork has been laid for creating a new generation human transport complex as a part of the complex of human spacecraft for missions to the Earth orbit and beyond.**

**Division for contact and remote sensing of the lunar surface has been established.**

**Facilities of the first phase of Vostochny construction have been built.**

#### 2025

**SPACECRAFT**
- Communication, broadcasting and relay: 41
- Earth observation: 23
- Fundamental space research: 4

**HUMAN FLIGHTS (2024)**
- ISS RS modules: 7
- Soyuz-MC: 2
- Progress-MC: 1

**It is planned to launch 155 SC within 10 years.**

**The first phase of the lunar program, which provides for 5 spacecraft launches (1 reserve), including Luna-Glob, Luna-Resurs-1 (one orbiter, two landers - primary and backup), Luna-Grunt.**

**Functioning of the Space Launch Complex for the light, medium and heavy class LVs at Vostochny, laying the basis for a prospective LV (including super-heavy class).**

Formation and maintenance of the desired orbital spacecraft constellations, providing services for the socio-economic domain, scientific and international cooperation, protection of population and territories from emergency situations of natural and man-made disasters, as well as implementation of the human program, establishment of launch vehicles and equipment, laying scientific and technical groundwork for promising space systems.
ROSCOSMOS CORPORATE ACADEMY

- An industry-wide corporate training centre created in 2016 by the decision of Roscosmos Management Board and Roscosmos Steering Committee
- Internal service provider for key human capital development projects of Roscosmos (e.g. Hi-Po, talent development and succession pool training for senior management positions, “Chief Designer School” etc)
- Currently based in the city of Korolev, but will be relocated to the new office Moscow in 2018
- More than 4500 participants of various training events per year (expected in 2017) with a goal of 15000+ participants for 2020.

Management development and hi-po development at all levels

Industry-wide system for development of key functional/professional competencies

Supporting change processes and implementation of new standards and systems across the industry

Systematization and dissemination of best practices, knowledge transfer, management of expert communities
### Employee Assessment:
- Assessment and selection of Hi-Po (all levels)
- Transfer of assessment tools and methods to Roscosmos enterprises
- Assessment at the time of appointment
- Assessment of professional knowledge and skills

### Succession Pool and Hi-Po Training:
- Strategic succession pool training
- Enterprises succession pool training
- Young leaders development program
- Special training for high-skilled graduates

### Management Training:
- Executive development programme
- Training of TOP-management teams
- Management development programmes designed according to individual development plans
- Coaching

### ROSCOSMOS Production System (LEAN) Training:
- Multilevel education and certification program
- Management teams and LEAN—leaders sessions
- Production systems mentors and in-house LEAN-training development programmes
- LEAN in R&D

### Functional Training:
- «Chief Designer School»
- «Chief Technology Manager School»
- Space industry projects and program management
- Quality management and standardization in space industry
- Modern manufacturing technologies space industry
- Space industry procurement
- IT in Space industry
- Human Resources management
- Economics, finance and investments
- Corporate management
- Specialized programs on demand

### Research and Development, Consulting:
- Development of training programs, methods, set of educational and methodological materials
- Interactive training instruments: business games, business simulations
- Assessment methods and tools, test materials
- HR consulting and research

### Organizational Services:
- Organization of industry conferences, meetings and strategic sessions
- Management team building events
- Competitions and conferences for youth
- Crowdsourcing projects
REGIONAL CENTRES FOR SPACE SCIENCE AND TECHNOLOGY EDUCATION (AFFILIATED TO THE UN)
NEW REGIONAL CENTRE: THE SCHEME

United Nations

Curricula
Requirements for Regional Centres

Existing and future contracts

State Policy, Industry demands

Demands and standardization

Applicants, Clients

Application for courses and programmes

More than 50 Russian Universities
(Bauman State University
Moscow Aviation Institute
Moscow State University
Samara University e.t.c.)

Russian Federation
Ministry of Education and Science

Curricula

Application for courses and programmes

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BENEFITS FOR KEY STAKEHOLDERS:
WHAT EACH STAKEHOLDER WILL GET?

• UN:
  • A reliable partner for the UN-affiliated Regional Centre located in European part of the World and supported by one of the key players in the space industry - “Roscosmos”
  • Reinforcement of the existing network of Regional Centres
  • No financial support is requested from the UN

• RF Ministry of Education and Science:
  • Opportunity for translation of the state policy in space education and science
  • Opportunity for using internationally recognized standards for curricula and training materials

• State Corporation “Roscosmos”
  • Translation of the state policy
  • Additional way of accessing new and emerging countries
  • Promotion of GLONASS navigation system

• Higher Educational Institutions (Moscow, Samara, Krasnoyarsk etc):
  • Opportunity to take part in course development and delivery without much involvement in administrative and organizational issues
  • Access to international partners (universities, space agencies etc)

• Potential clients of Regional Centre
  • One “gateway” to access the expertise of Roscosmos and its enterprises as well as leading Russian universities
Thank you!

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