

FEDERAL ENVIRONMENTAL, INDUSTRIAL AND NUCLEAR  
SUPERVISION SERVICE OF RUSSIA  
(ROSTECHNADZOR)



# **Industrial Safety Management System and Arrangement of Control and Supervision in Coal Industry**

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## State control in the field of industrial safety in coal industry enterprises is carried out in:



- **101 mines**
- **258 open pits**
- **109 coal preparation facilities**



### Hazard classes and their criteria

I	II		III	IV
Coal mine	Coal preparation factory with preparation process in heavy media	Open pit with rock mass development $\geq 1$ million m <sup>3</sup> per year	Coal open pit with rock mass development 100 thousand to 1 million m <sup>3</sup> per year	Coal open pit with rock mass development $\leq 100$ thousand m <sup>3</sup> per year

### Distribution of hazardous production facilities by hazard class:

Hazard Class I, coal mines– 101 (of them 63 producing ones);

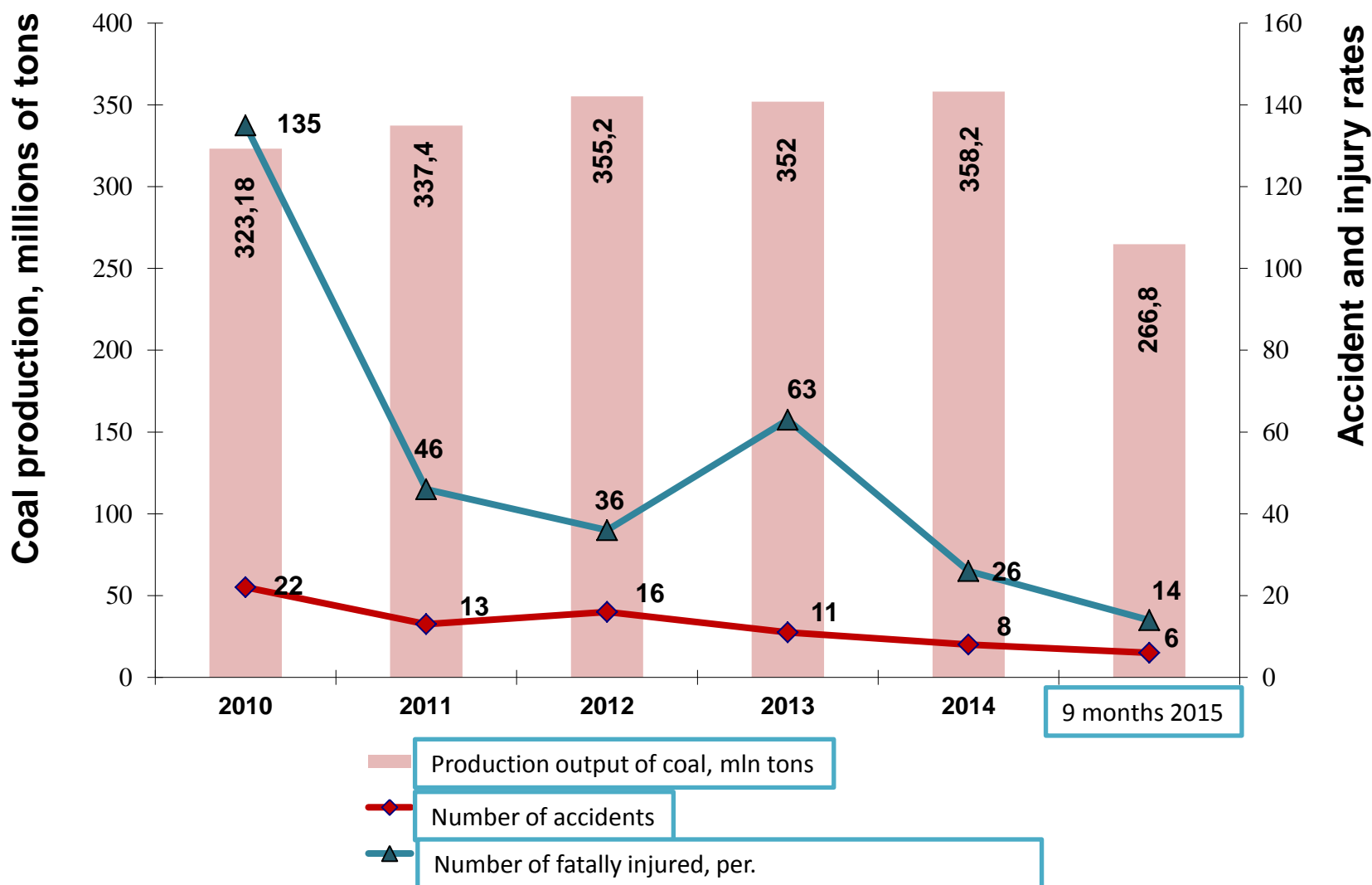
Hazard Class II, coal open pits – 186, coal preparation facilities – 101;

Hazard Class III, coal open pits – 49; coal preparation facilities – 7;

Hazard Class IV, coal open pits – 23; coal preparation facilities – 1.



## Accident and fatal injury rates in 2010 – 9 months of 2015





*Supervised facilities in 2014:*

**Accidents – 8**

**Fatal injuries – 26**

*Supervised facilities over 9 months of 2015:*

**Accidents – 6**

**Fatal injuries – 14**

**Nominal value of fatal injuries in 2014 – 0.07  
persons per million of tons; over 9 months of  
2015 – 0.05 persons per million of tons.**

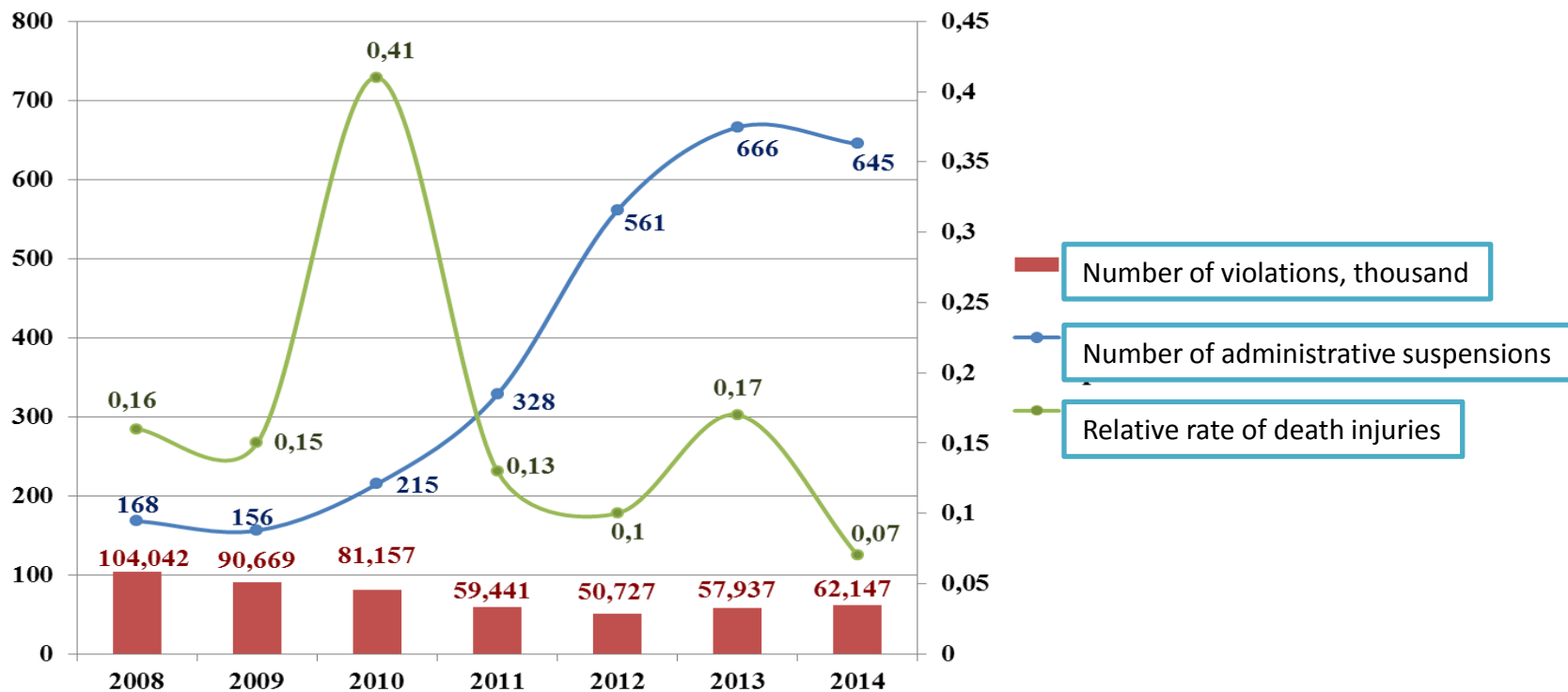


## Classification of accidents in 2013 to 2015

2013	2014	2015
Coal Industry		
4 fires 4 explosions 1 collapse 1 flooding 1 rock bump	3 fires 3 explosions 1 collapse 1 flooding	5 fires 1 collapse



## Number of violations revealed, administrative suspensions of work and nominal value of fatal injury rate in 2008 to 2014

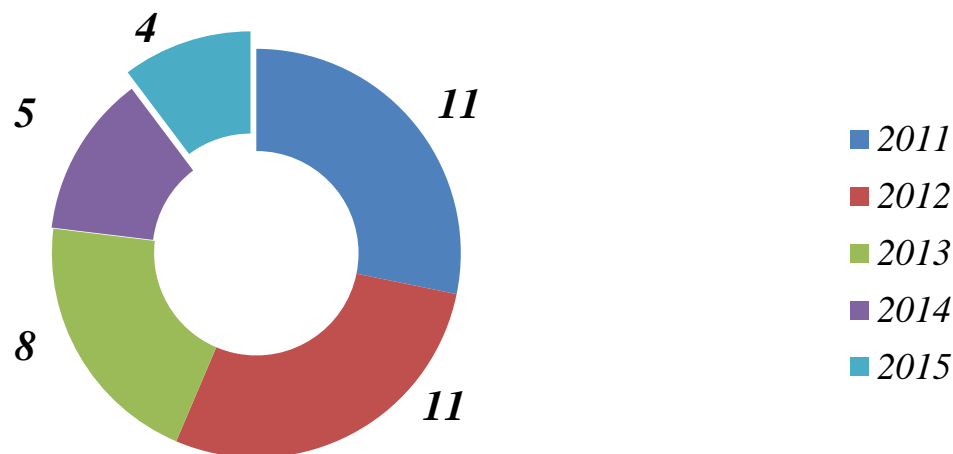




*Since 2011 Rostekhnadzor has approved 39 new regulatory documents in the field of industrial safety in coal industry of the Russian Federation adapted to modern technology and engineering features.*

*Over 50 meetings in 2015 between specialists of Federal executive bodies, business community and academia to develop regulatory documents*

Number of developed regulatory documents for coal industry after establishing programme of further improvement of labour conditions in 2011 to 2015





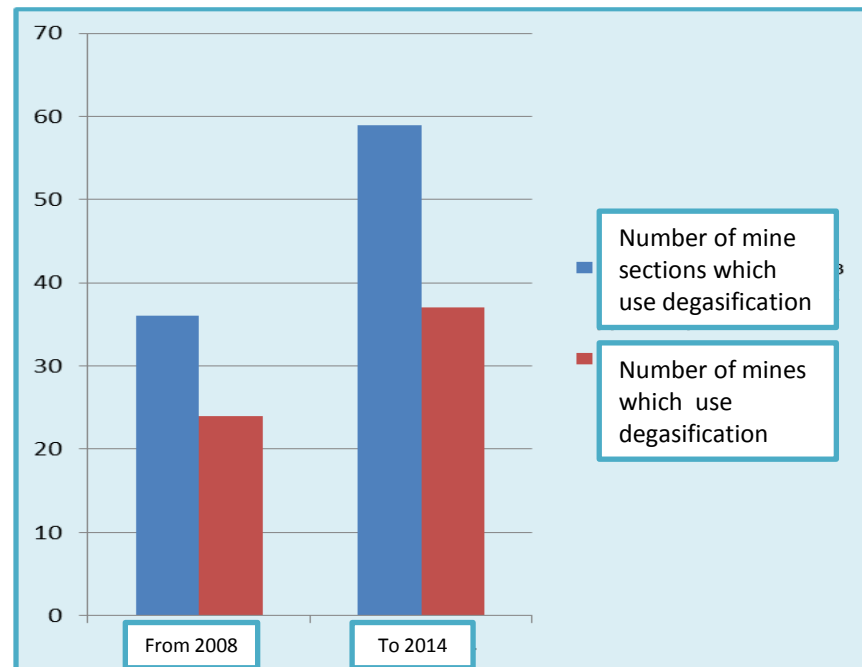


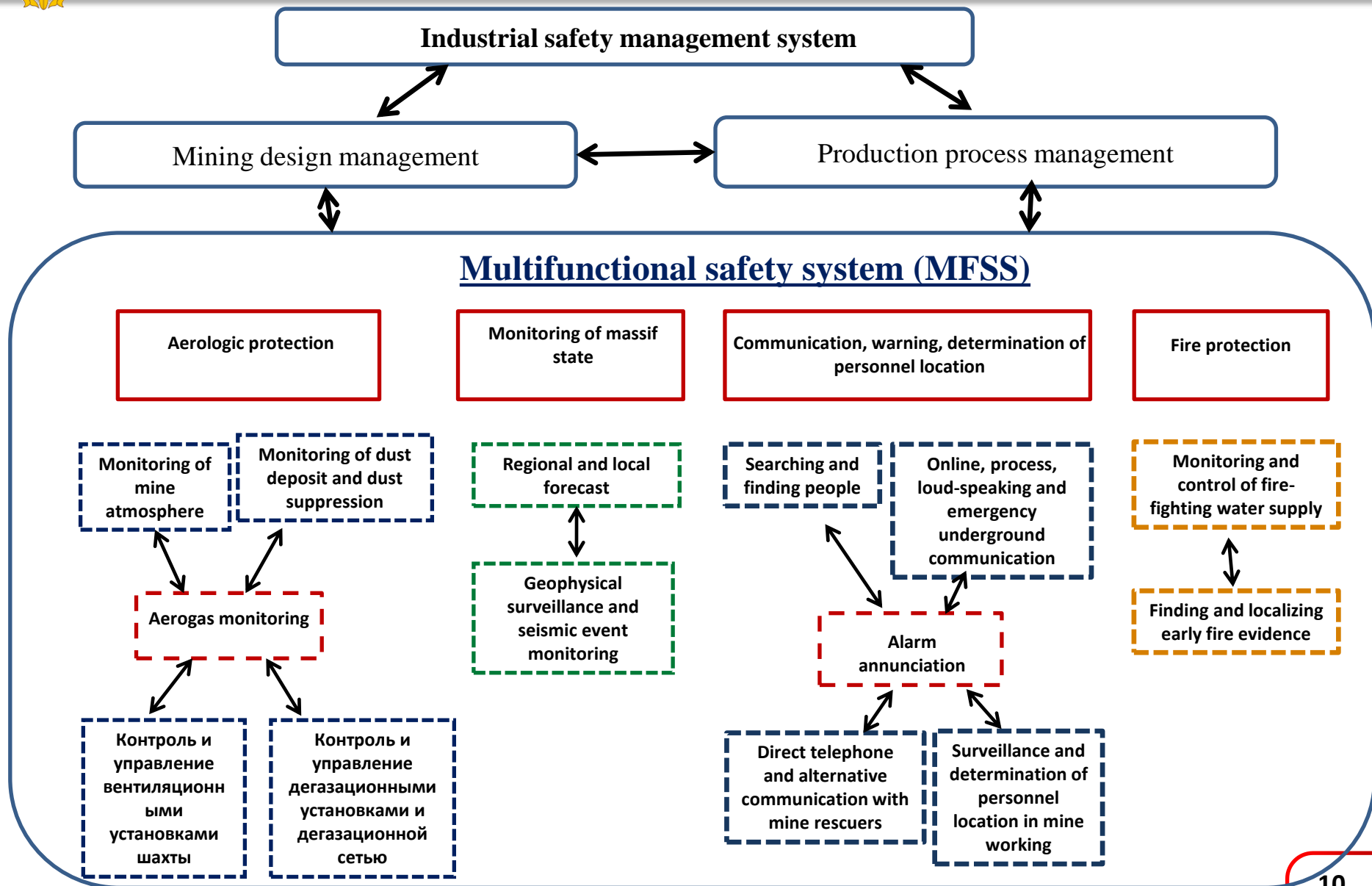
## Quantitative assessment of applicability of new requirements in coal companies

Methods of methane removal – example  
from Kuznetsk Basin coal mines



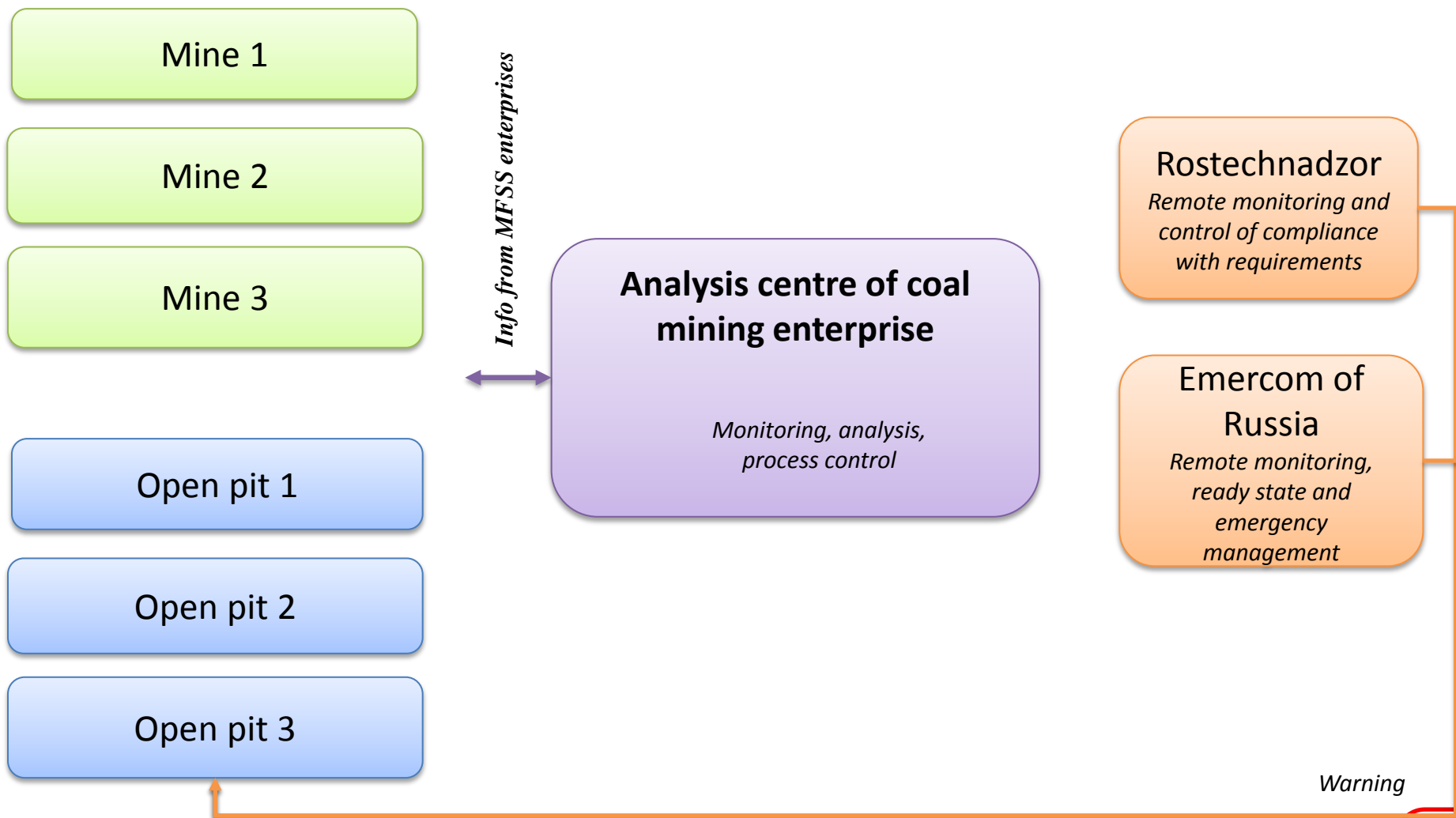
Methods of methane removal – example  
from coal mines of Russia







## Structure of remote monitoring





Thank you for your  
attention