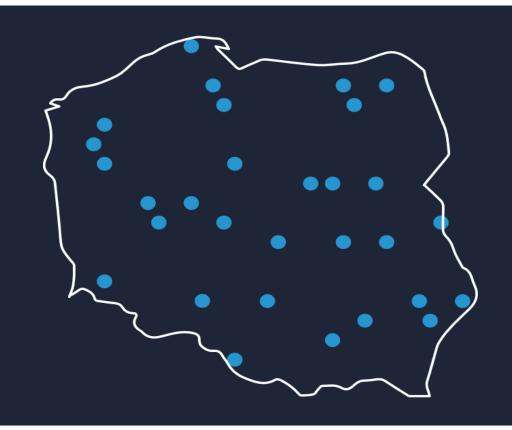


ose.gov.pl

## Internet access in schools - 2017

Almost 10% with no access
Only 10% with access to >100 Mbps











# The idea of OSE (Ogólnopolska Sieć Edukacyjna)

#### OSE provides **FREE OF CHARGE**:

- Internet access services of at least 100 Mbps symmetrical
- advanced cybersecurity measures
- assistance to digital skills' development

VIA a virtual network based on dedicated core and leased lines

On VOLUNTARY basis

22 500 schools 600 000 teachers 5 000 000 students









## **OSE** core network & Internet security

#### Most essential tasks:

- IP/MPLS core network deployment
- OSE security systems deployment (Anti-DDOS, Web filtering, contents filtering, parental control etc.)
- Cloud computing
- Operations Support Systems

~100 tasks amounting to ca. 130 MLN EUR









#### xe-2/1/13 STYK: ORANGE In 0 % | Out 0 % GDARAGO Te0 xe-9/1/8 STYK: ORANGE • In 0 % | Out 0 % SZCRAG01-re0 OLSRAG01-re0 TORRAGO re0 SZC 0% BIARAG01-re0 POZRAC01-re0 0% WAWRAG01-RE0 xe-4/1/7 · STYK: VECTRA In 9 % | Out 1 % POZRCO01-re0 WAW COOL-REO XE-4/1/8° STYK: VECTRA ZGORAG01-re0 POZ 11% LODRAG01-re0 ZGO LOD WRO LUB 15% KIERAG01-e-1 0% LUBRAG01-re0 WRORAG01-re0 2% OPORAG01-re0 KATRC001-re0 RZERAG01-re0 KATRAG01-RE0 KRARAG01-re0 RZE xe-2/0/18 · STYK: VECTRA > In 14 % | Out 1 %

#### **OSE** core network

- 16 regional nodes
- 3 central nodes









## **OSE Internet access services**

#### 56 nationwide tenders

Acquisition of last mile & transit lines

284 interconnections

**585** line-lease contracts **~25** MLN EUR annualy



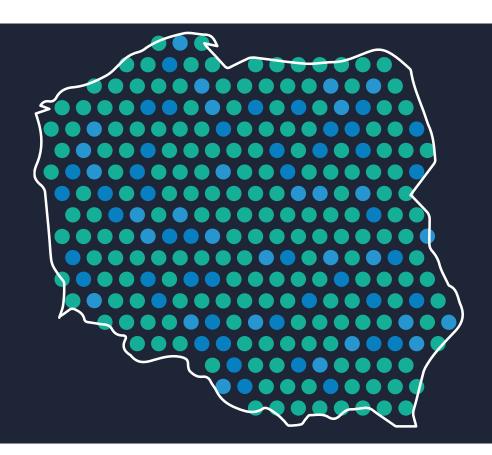






## Internet access in schools - 2021

ALL schools with access to internet











## **OSE Internet access services - 2021**

20 000

schools subscribed

18 000

19 000

2 000

~2 000

rated schools still may subscribe

schools with active OSE service schools ready for the service services are being activated

# Subscriptions still open







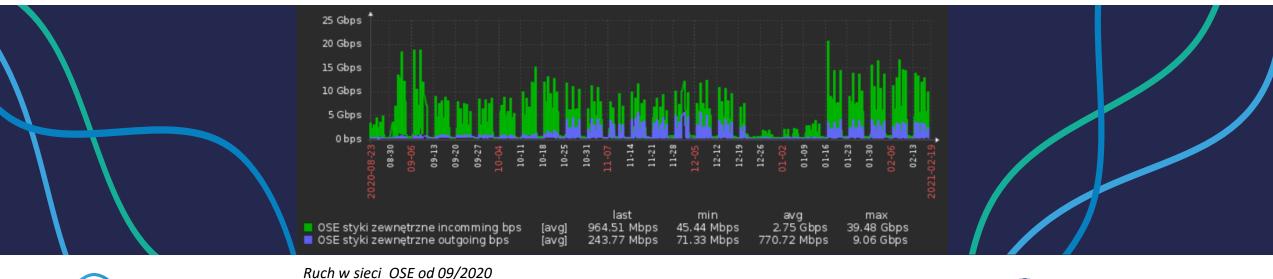


## OSE services monitoring – data consumption

Avg. data flow (daily)17Gbps DN/4Gbps UP

Avg. school (daily)0,38 Mbps DN/0,15 Mbps UP

Avg. school (monthly)6,39 GB DN/2,83 GB UP





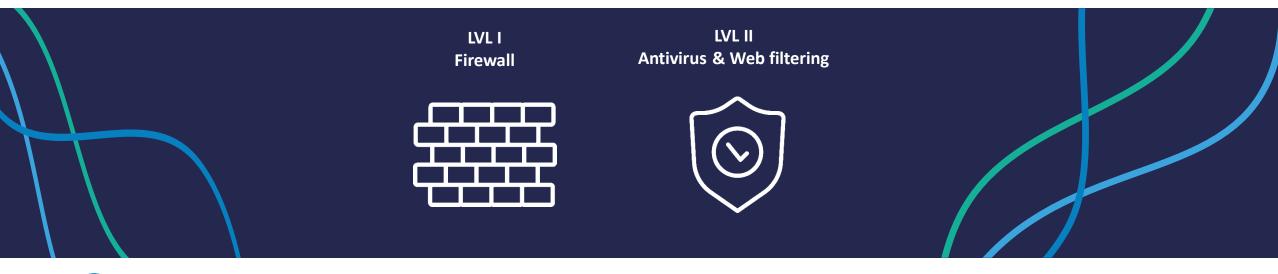






## **OSE security measures - 4 levels:**

- I Firewall, prohibiting access to certain webpages cosidered as basic threats
- II Antivirus and Web filtering, dynamic analysis of threats based on reputational data







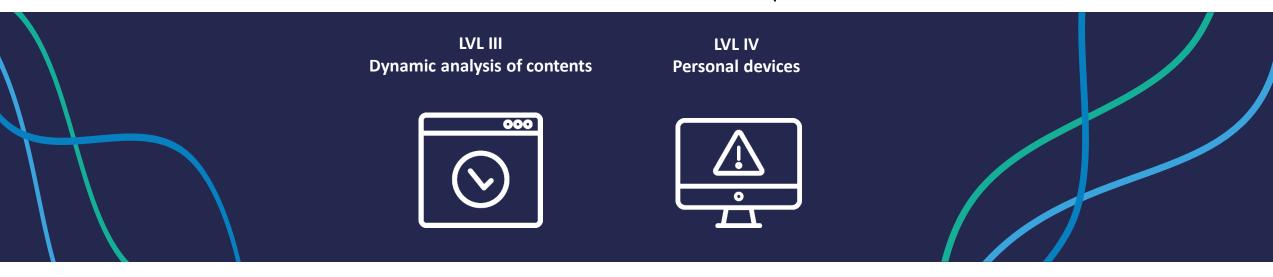




# **OSE** security measures cont'd:

 III – data flow monitoring, dynamic analysis of contents (text, audio, video), detection of threats (incl. cyberbullying or data potentially noxious for students healthy development) • IV – parental control app on smartphones

Each school voluntarily chooses the extent to which the security measures are implemented











# OSE COVID-19 additional measures (homeschooling):

### **GOV.PL/ZDALNELEKCJE**

A webpage sharing educational contents & tools, launched as a single contact point to help teachers & students maintain the implementation of curricula during homeschooling

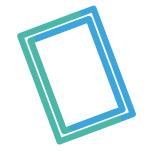
- 127 MLN views
- 4,5 MLN active users
- 8 500 lessons scenarios for different subjects & grades
- 39 300 electronic contents & tools for homeschooling

#### **Devices for schools in need**



12 800

laptops



60 000 tablets









## **Thank You**

#### Marcin Łukasiewicz

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https://www.gov.pl/web/cyfryzacja

https://ose.gov.pl/







