

DNSSEC in .nl

Marco Davids | Platform Internetstandaarden

March 16, 2016



Agenda

1. About SIDN
2. About DNSSEC in .nl

SIDN

- Registry for the .nl ccTLD
- RSP for .amsterdam and .aw (Aruba)
- SIDN Labs = R&D team
- ~ 5.6M domain names, ~2.5M DNSSEC signed (44%)
- <https://stats.sidnlabs.nl/>



0 5 6 2 2 7 0 9

.nl domain names

0 2 5 0 2 2 2 3

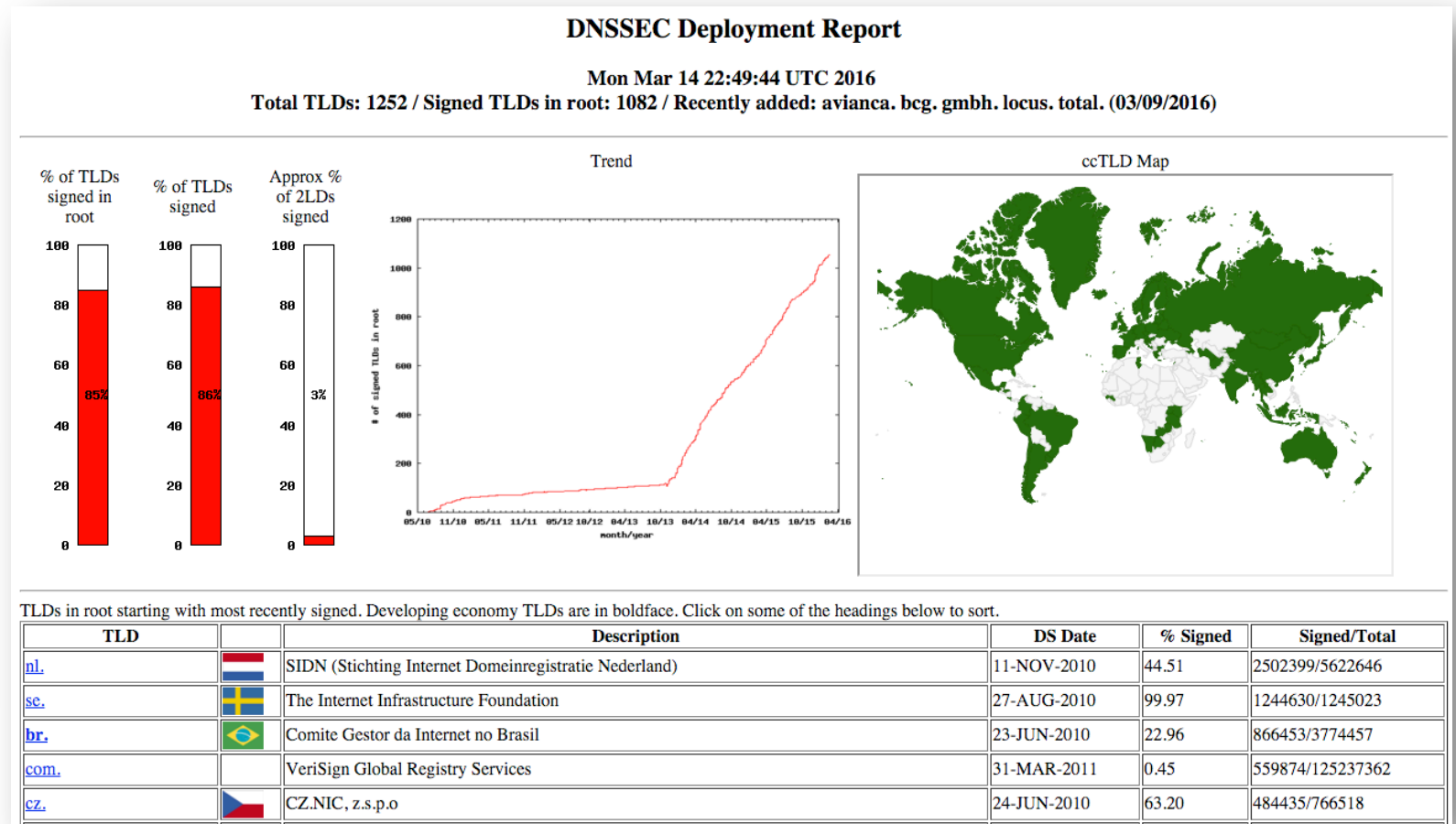
DNSSEC .nl domain names

<http://www.nominet.uk/mapping-the-online-world/>



DNSSEC

- Largest DNSSEC zone in the world! (in absolute numbers)



Domains Secured with DNSSEC

com	545,400
net	96,081
edu	67

Updated 2016-03-14 16:54:10

<http://scoreboard.verisignlabs.com/>

<https://rick.eng.br/dnssecstat/>



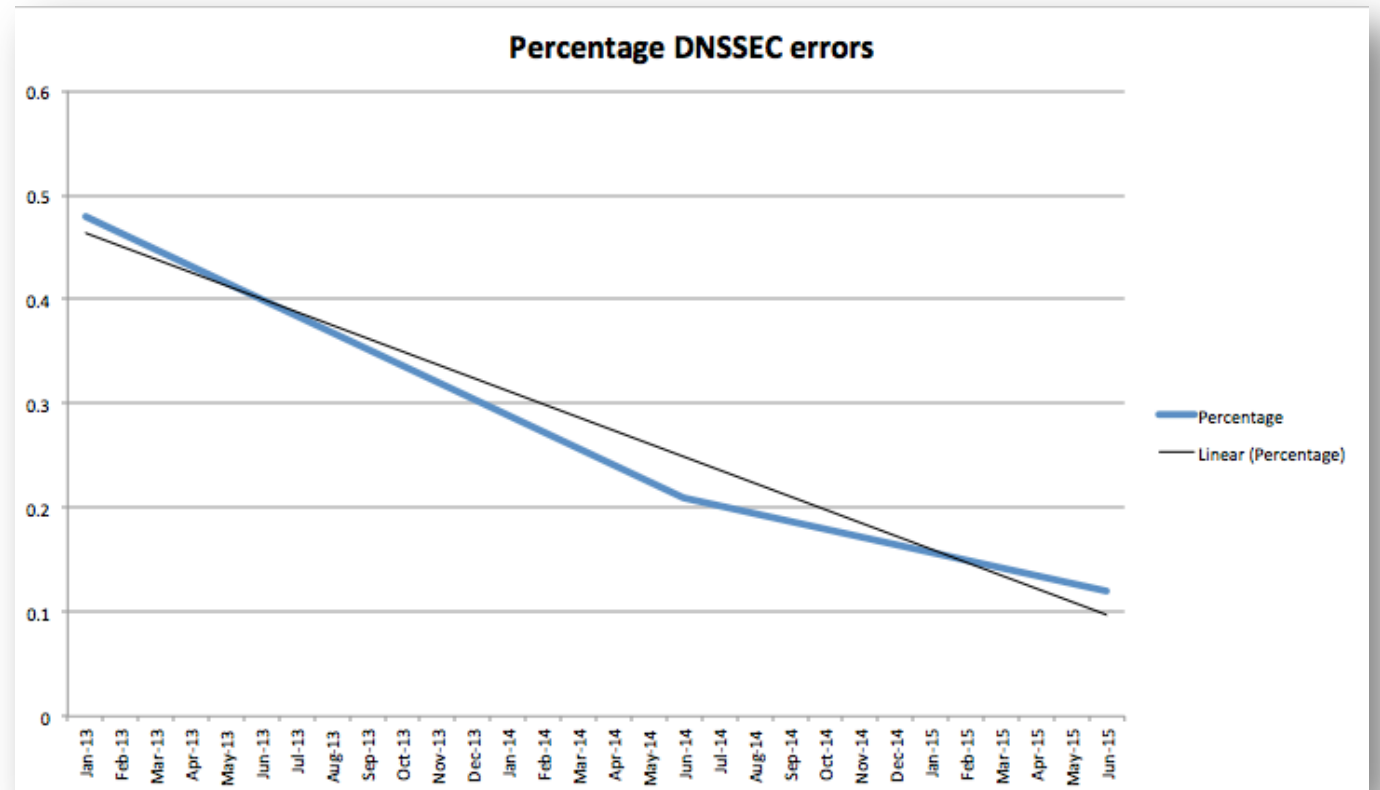
DNSSEC How?

- Lots of DNS(SEC) knowledge in the Netherlands!



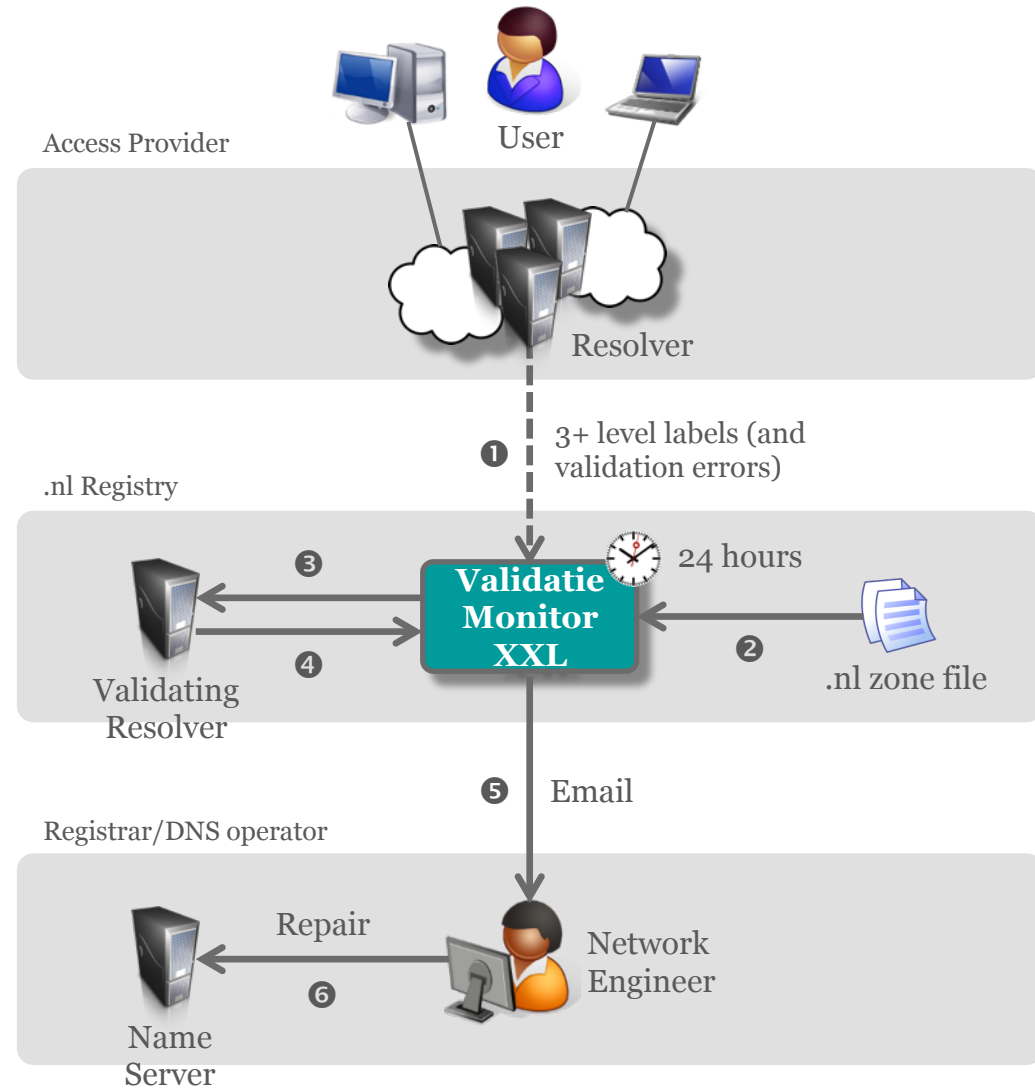
DNSSEC How?

- But... (after all we are Dutch), the DNSSEC-incentive arrangement proved most successful!
- Registrars receive a discount for every signed domain name.
 - Pros:
 - VERY successful.
 - DNSSEC is a “commodity”
 - Threats:
 - Money might outweigh quality.



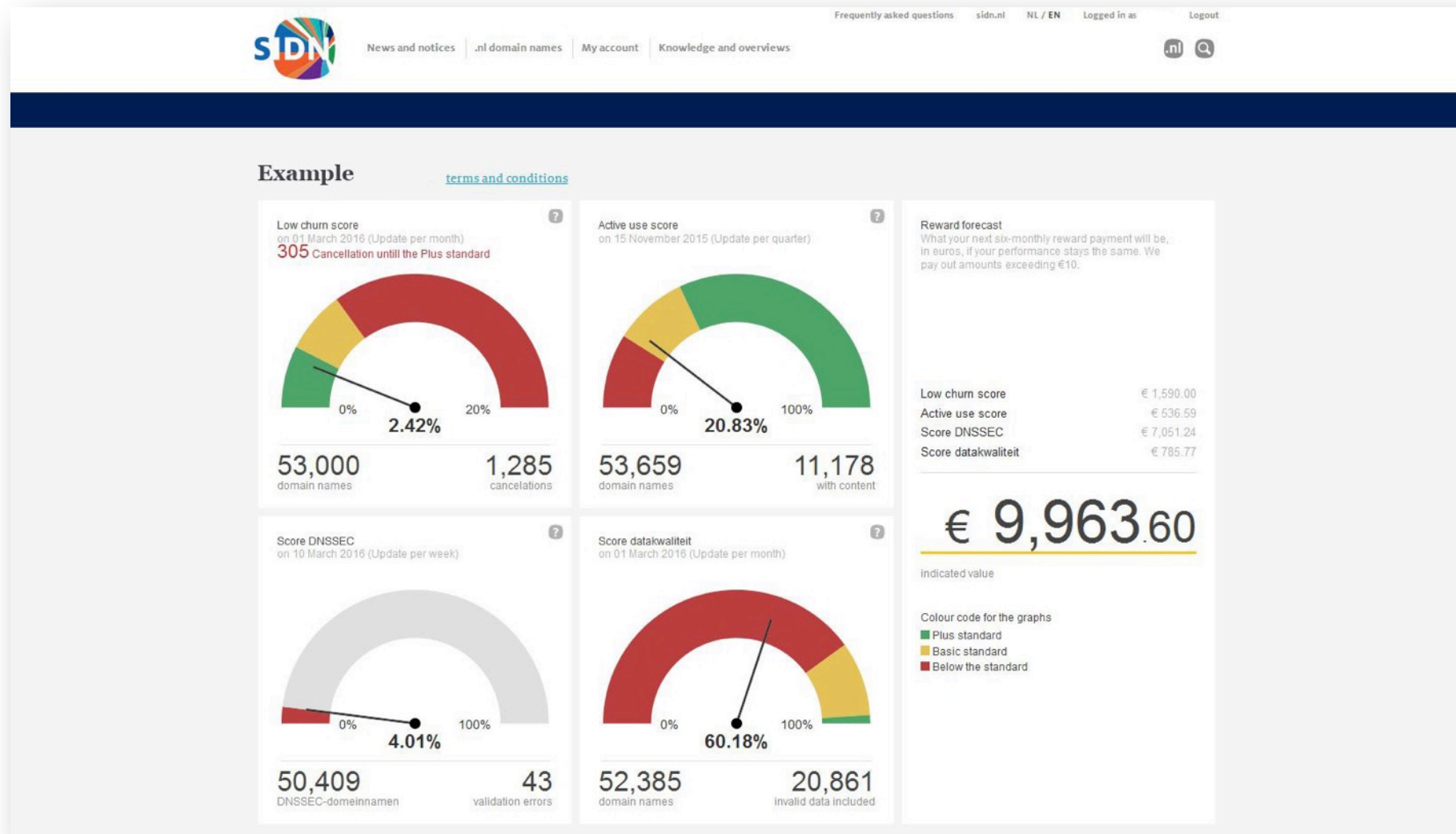
DNSSEC How?

- DNSSEC Validationmonitor XXL
- Every signed domain name,
 - tested every day,
 - on several aspects.



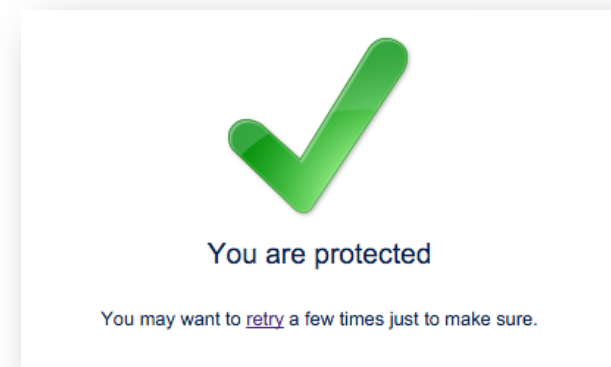
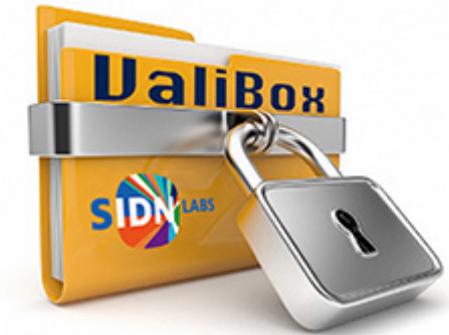
Registrar Scorecard

- Incorrectly signed DNSSEC will have an impact on the RSC incentive.



DNSSEC Awareness

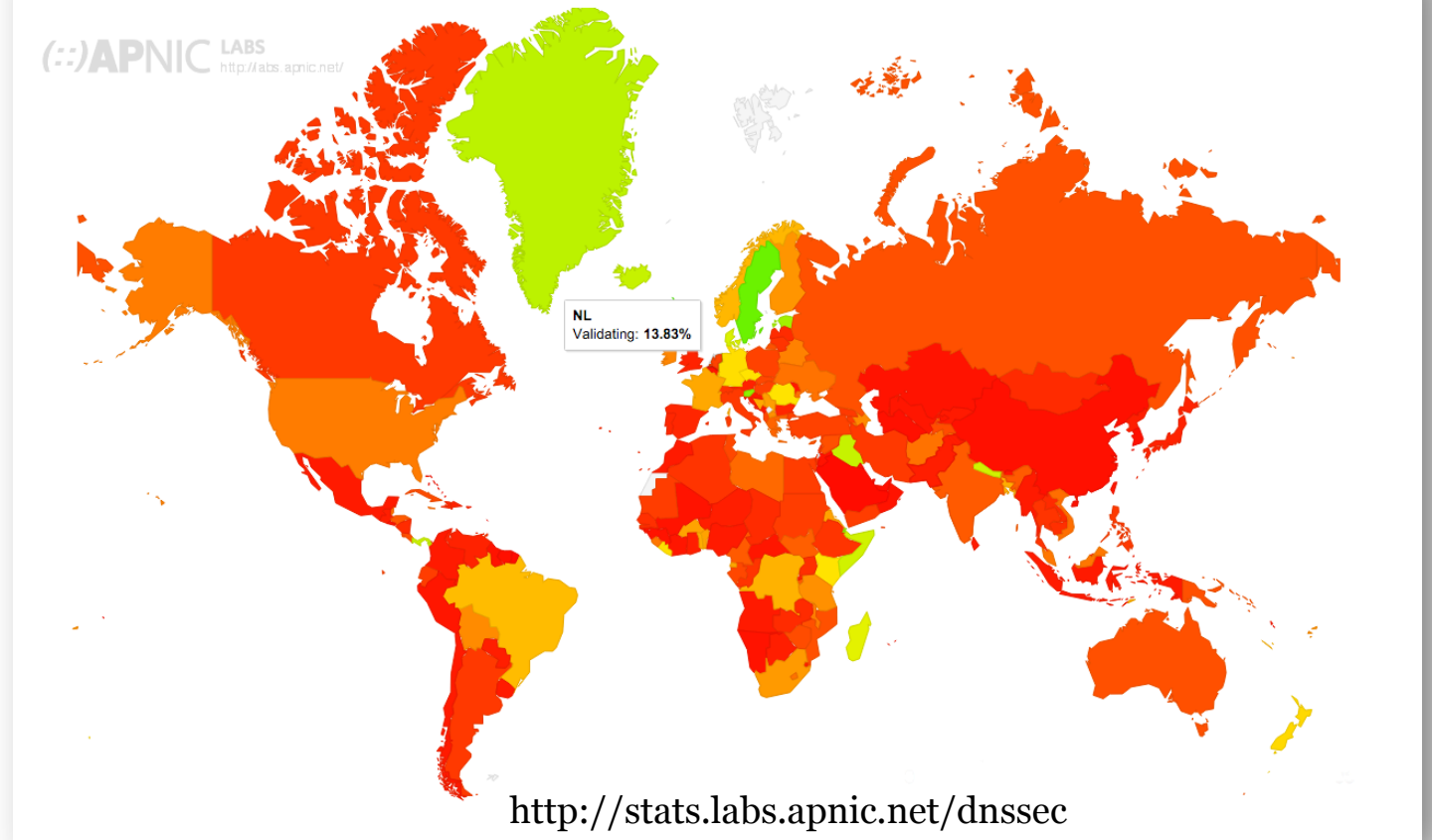
- Apply for inclusion on the ‘comply-or-explain’ list of open standards of the Dutch Government.
- Standardisation within the IETF (for example EPP Keyrelay draft for secure transfers)
- Several lab experiments, such as the ValiBox
- Webinars
- Online training material (<http://www.dnsseccourse.nl/>)
- Many tools, such as <https://dnssectest.sidnlabs.nl/>
- Dedicated site with information: <https://www.dnssec.nl/>
- And... participating in <https://internet.nl/> !
 - (among lots of other things)



Current challenges

- DNSSEC Validation...
- DNSSEC Validation...
- DNSSEC Validation...
- (in NL similar to PL)

DNSSEC Validation Rate by country (%)



- This turns out to be a lengthy, cumbersome process, much like IPv6 (although there is hope)

Approach

- **Take a multi-track approach**
 - Offer validation functionality
 - Help further reducing validation errors
 - Go horizontal (thru ISPs) as well as vertical (industry-specific)
- **Help others**
 - Sponsor software development (such as Unbound, BIND, PowerDNS)
 - Sponsor large-scale validation pilots, for instance at universities
 - Enable policy development, for instance at government agencies
 - Promote use (internet.nl, stats.sidnlabs.nl, dnssec.nl)



Questions?

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Thank you!