



**NASK: serving
Local Internet
Community**

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CENTR Open Day 2005**

A low-angle photograph of a modern skyscraper with a grid-like facade, viewed from the side and slightly below, against a clear sky. The building's lines create a strong sense of height and perspective.

Background

- established in 1991
- Research & Development public entity
- supervised by Science and Information Society Technologies
- registry for .PL
- registry for +48 (ENUM project)



Background

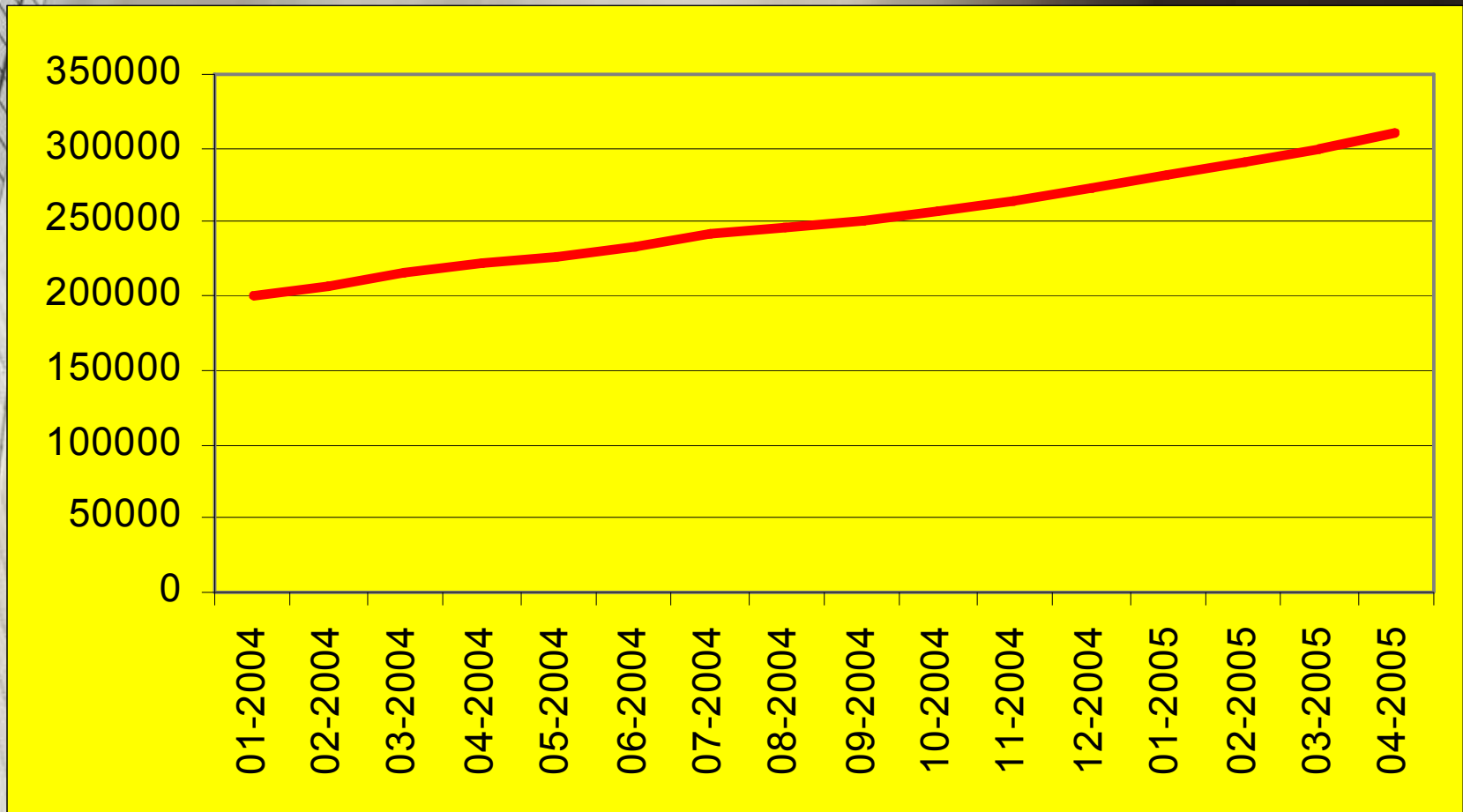
- other services:
 - hosting,
 - Internet Acces,
 - IP Transit,
 - corporate networks,
 - videoconference,
 - VoIP services,
 - biometrics.
- 280 employees (total)
 - 40 employees in DNS Division
- Member of CENTR, RIPE, ITU-T etc.
- Collaboration with ICANN, ENISA etc.



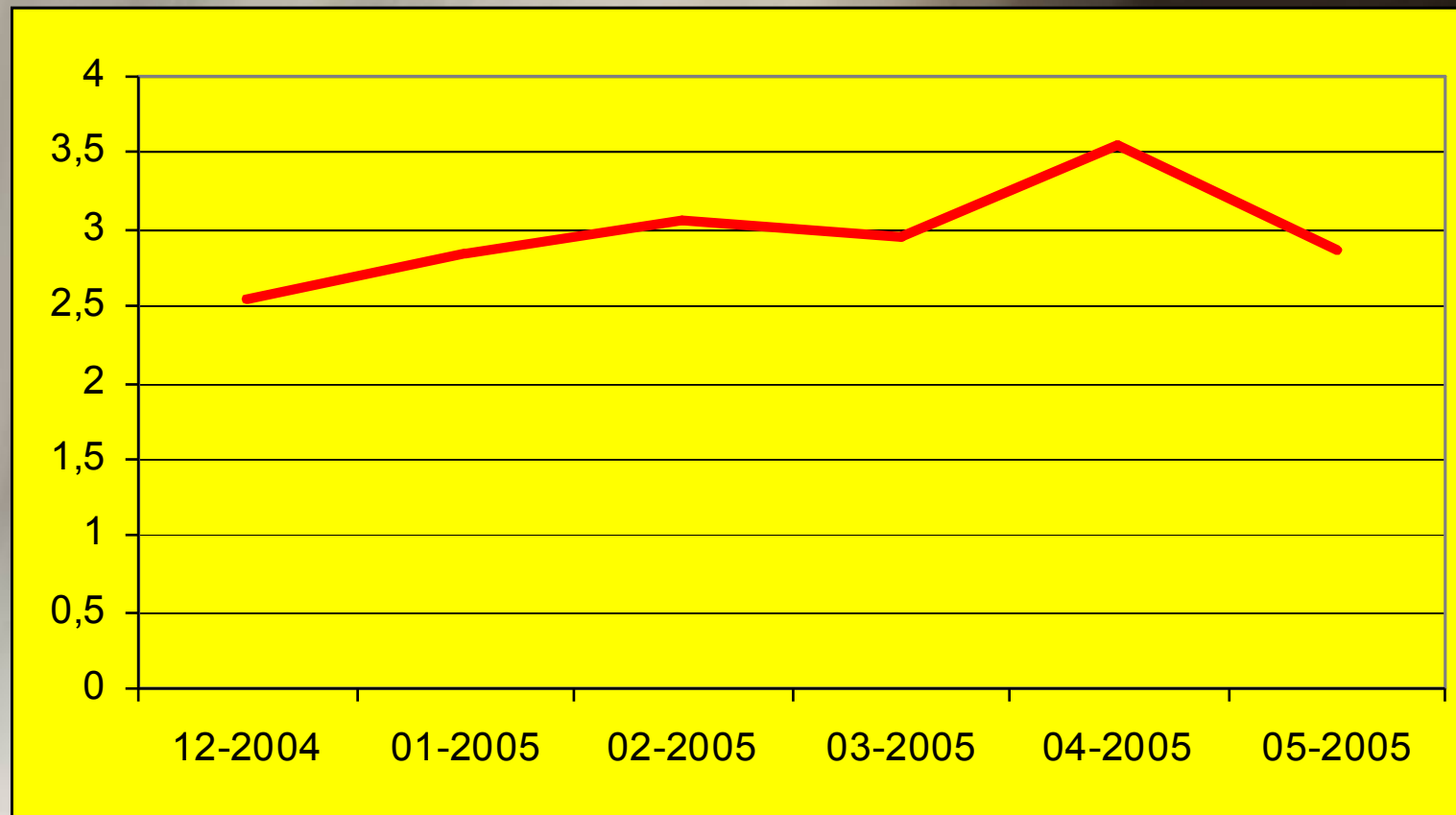
Registration rules


- **NO RESTRICTIONS** – open policy
- **First Come First Served**
- flexible registration periods: between 1 and 10 years
- automatic, secure on-line registration system (EPP)

Total number of domain names



% nett growth (monthly)





**cutting edge
technology**

**security &
stability**

**business,
competition,
availability**

**serving Local Internet
Community**




***serving Local Internet
Community***

**cutting edge
technology**




Driving factors

- Local Internet Community
 - Registrars (business)
 - Users (domain name holders)
 - Registry internal experience
- Other
 - International cooperation (CENTR, RIPE, IETF...)



Technical success story

- March 2003:
on-line EPP registration system
(the first registry in Europe)
- September 2003:
Internationalized Domain Names
(the first registry in Europe)
- March 2004:
ISO 9001:2000 (the first ccTLD
registry all over the world with ISO
9001 in the field of domain names)
- April 2004:
Wait List Service („options“)



**cutting edge
technology – example:**

**Internationalized Domain
Names**



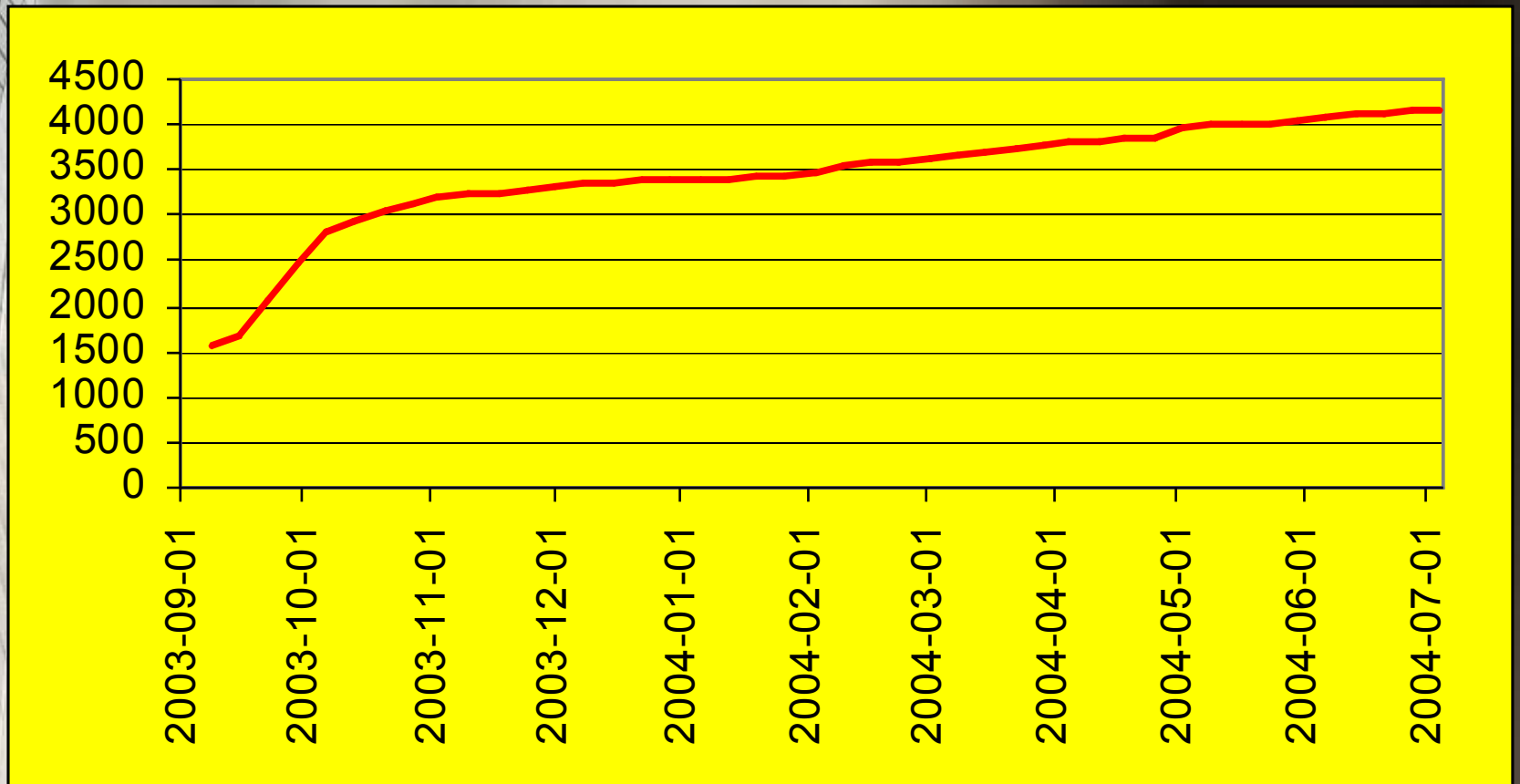
Consultations at national level

- Consultations with Local Internet Community: February 2002 – February 2003
 - Feedback from Users (existing domain names holders interested in registration of IDN equivalents to existing „traditional“ domains)
 - Feedback from ISPs (comments to the registration procedures)
 - Press releases (ca. 20 publications in ICT and daily newspapers)
 - Conferences, seminars (National Telecommunication Symposium etc.)

Consultations at international level

- Consultations and discussions with European ccTLD registries (members of CENTR)
 - face-to-face discussions
 - presentations during CENTR Administrative Workshops, CENTR Technical Workshops (February 2002 – February 2003)
- NASK's IETF draft (August 2003)

IDN stats (growing)





***serving Local Internet
Community***

**business, competition,
availability**



**business, competition,
availability - example:**

registry-registrar program



Driving factors

- Local Internet Community
 - Registrars (business)
 - Users (domain name holders)
 - Legal system in Poland
 - Registry's internal experience
- Other
 - International cooperation (CENTR, ICANN)



Retail *versus* Wholesale

2002:

- retail = 100%
- wholesale = 0%

2005:

- retail < 2%
- wholesale > 98%



Wholesale program

- **automatic registration system**
- **on-line access**
- **24 / 7 / 365 support for Registrars**
- **EPP – the new standard in domain names registration (NASK is the first registry in Europe offering EPP protocol to Registrars)**



Wholesale program

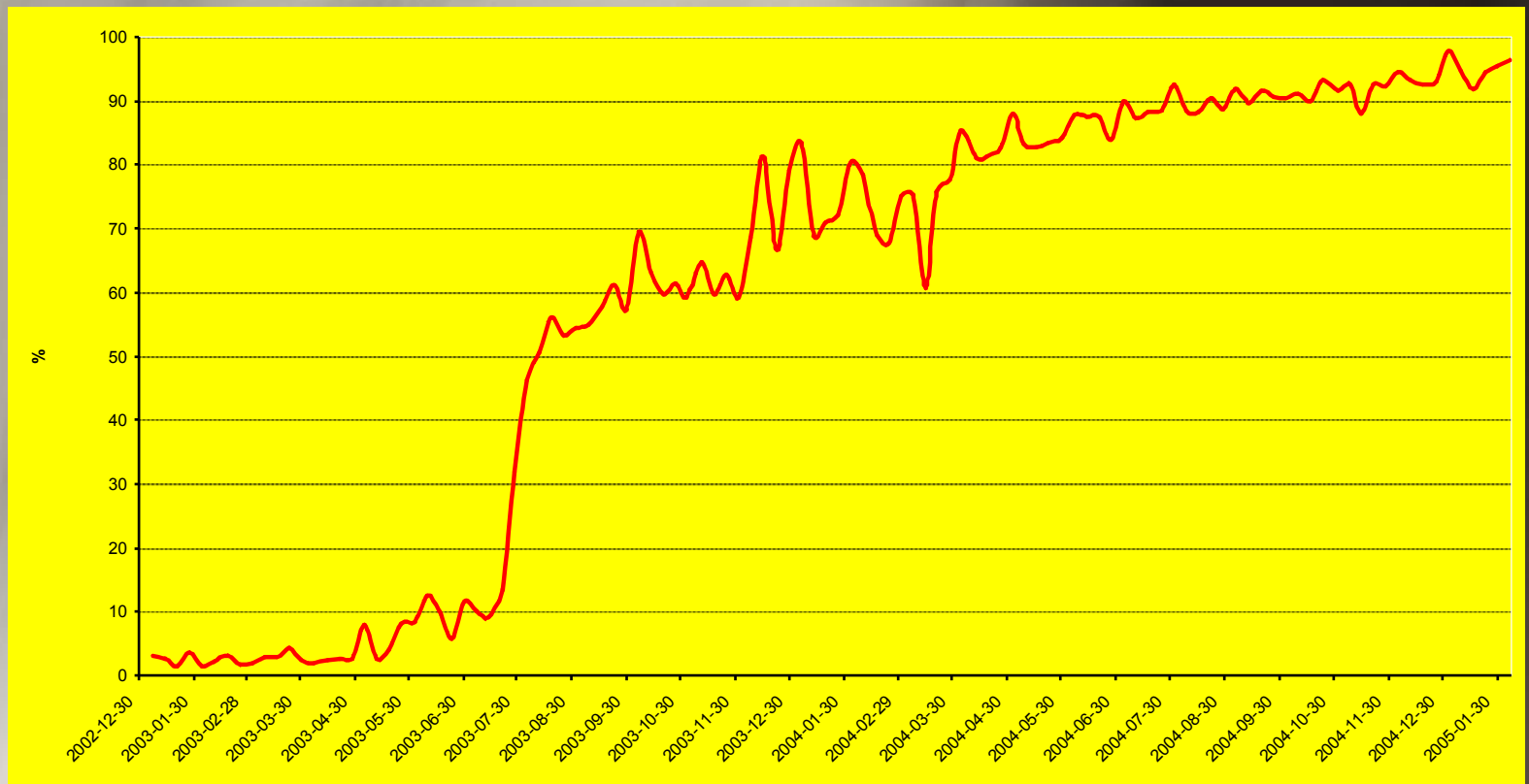
- 47 Registrars (Partners)
- 210 000 domain names served by registrars so far
- more than 98% of new registrations
- 65% of all .PL domain names served



Wholesale program

- **direct communication with registrars:**
 - e-mail + telephone
 - RSS news,
 - web page,
 - face-to-face meetings
- registrars' opinion poll at least twice a year

Wholesale registrations (%)





***serving Local Internet
Community***

security & stability



Driving factors

- Local Internet Community
 - Registry internal experience
- Other
 - International cooperation (CENTR, ICANN)



Backup & Disaster Recovery

- Full Backup & Disaster Recovery
- Full redundancy in the HQ:
 - Power lines: 2 independent medium-voltage sources
 - infrastructure (servers, network) x2
 - UPS for the whole infrastructure
 - power generators: stationary + mobile in remote location
- Remote location: Backup Center
- etc.

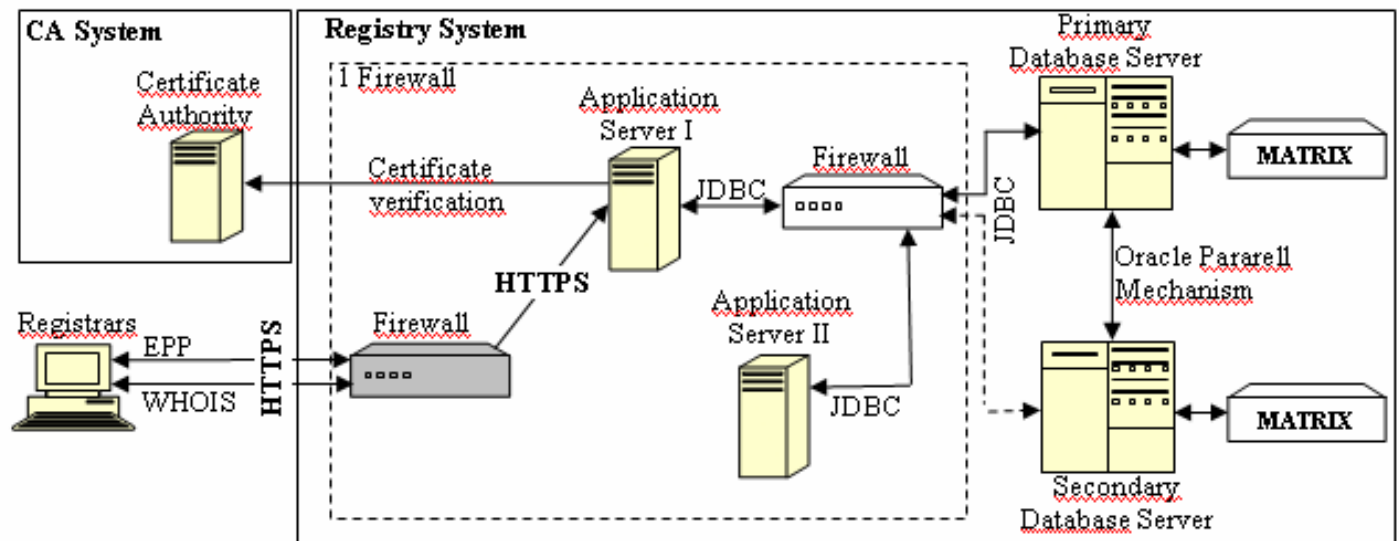


Physical security

- 24/7 monitoring
- Access control to every section of the company
- CCTV, detectors
- etc.

Network security

- Strong authentication (triple)
- Fraud detection systems („powerdigger“; „sentinel“)





Name Servers security

- 7 locations for Secondary Names Servers
- 3 servers in the cluster (failover) for Primary Names Servers
- Special & secure confirmation procedure with ICANN/IANA
- IP4, IP6 (May 2005)
- TSIG (zone signing)
- Monitoring (70 probes) – RIPE DNSMON



**Is Local Internet
Community** preferring
national Country Code
domain names?

**Yes! .PL is much more
popular than .COM**

only the best is good enough!

gTLDs versus ccTLDs (Feb 7, 2005)

	gTLD	national ccTLD	gTLD/ccTLD
UA	25,162	136,193	0,18
CH	138,301	673,529	0,20
NZ	40,726	174,061	0,23
PL	75,722	283,650	0,26
BE	112,067	397,783	0,28
NL	426,330	1.375,418	0,30
CZ	59,140	190,484	0,31
DE	2,897,040	8,384,894	0,34
AT	138,297	392,462	0,35
DK	219,689	573,164	0,38
SE	157,134	307,096	0,51
IT	561,590	1,007,399	0,55
NO	127,434	224,000	0,56
PT	41,751	43,227	0,96
FI	103,090	95,506	1,07
IE	57,031	44,083	1,29



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