

Current Approaches to Hearing Health Care Delivery

International perspective

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EHIMA (GN Resound as)
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Agenda

1. Intro Nikolai Bisgaard & EHIMA
2. World market hearing aids
3. Hearing aid coverage
4. European delivery models and analysis
5. Future perspectives



Nikolai Bisgaard



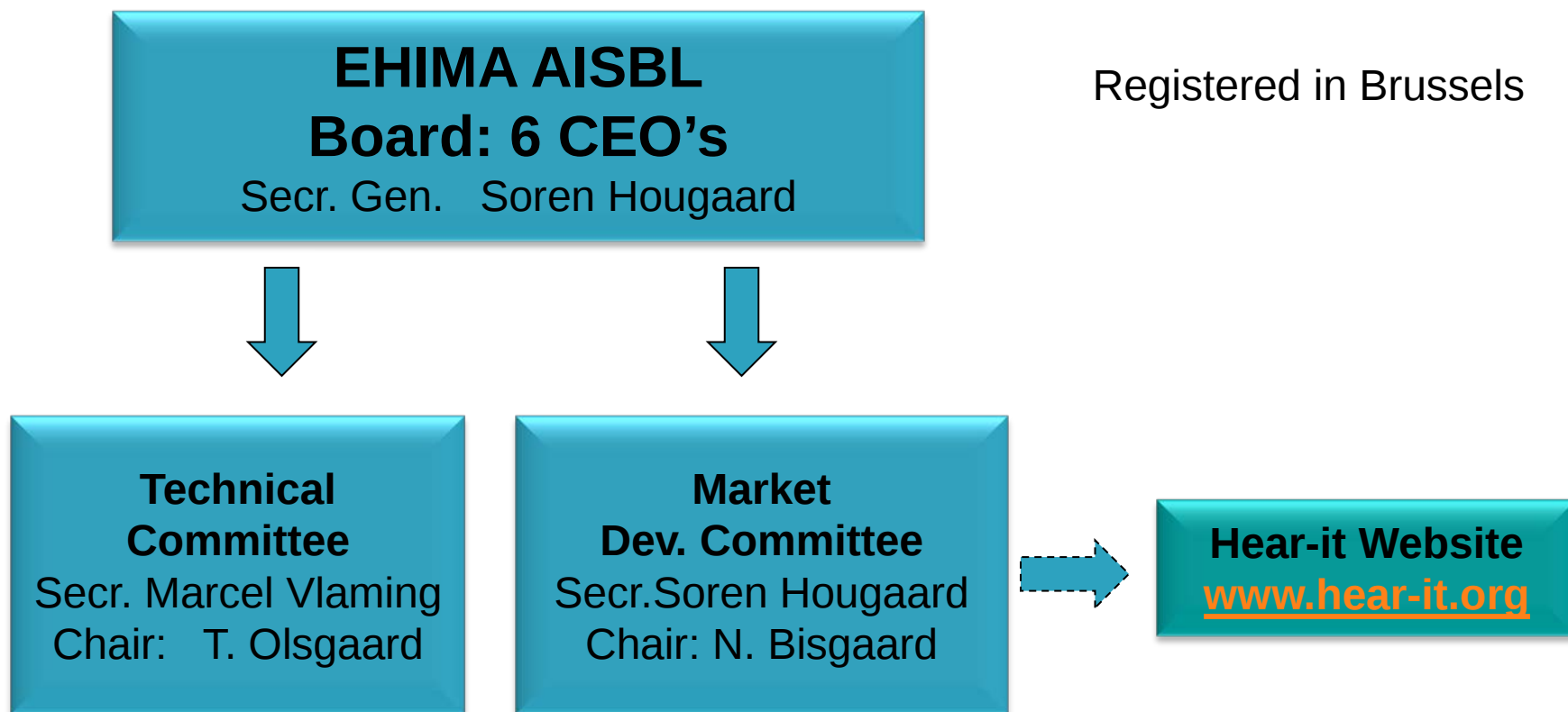
- M.Sc.EE (1976)
Psychoacoustics
- Employed in Hearing Industry (1978)
- First project: Digital hearing aid (1980)
- SVP R&D GN ReSound (1984 –1999)
- VP IPR & Industry relations (2000 –)

European Hearing Instrument Manufacturer Association (EHIMA)

6 leading hearing aid manufacturers providing over 85% of all hearing aids worldwide



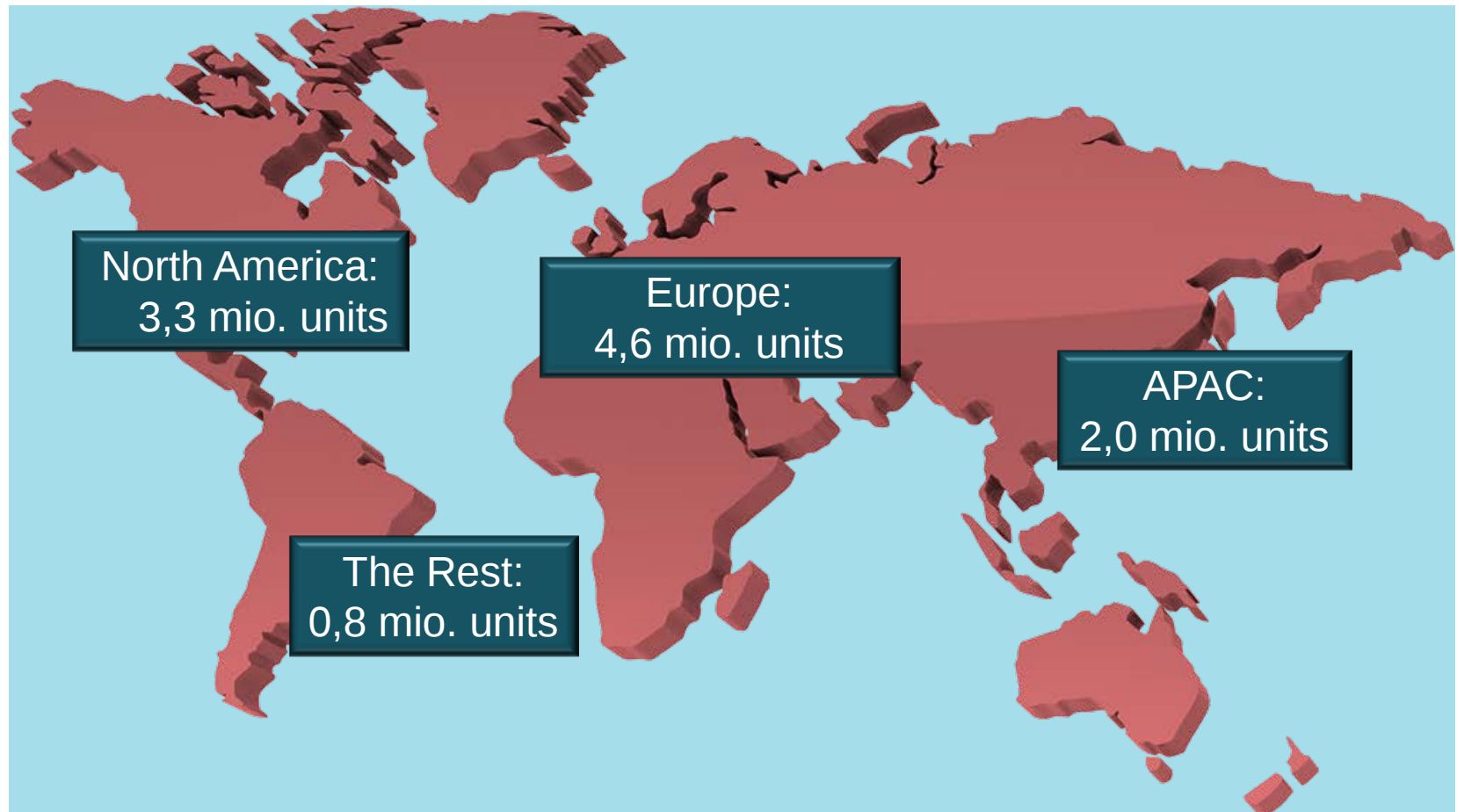
EHIMA organization



World Market for Hearing Aids

Total Market (2012) : 10,7 mio. units.
Growth: 2 % p.a.

Total Revenues: \$ 5 Bill.
(Wholesale)



Source: EHIMA

Hearing aid coverage

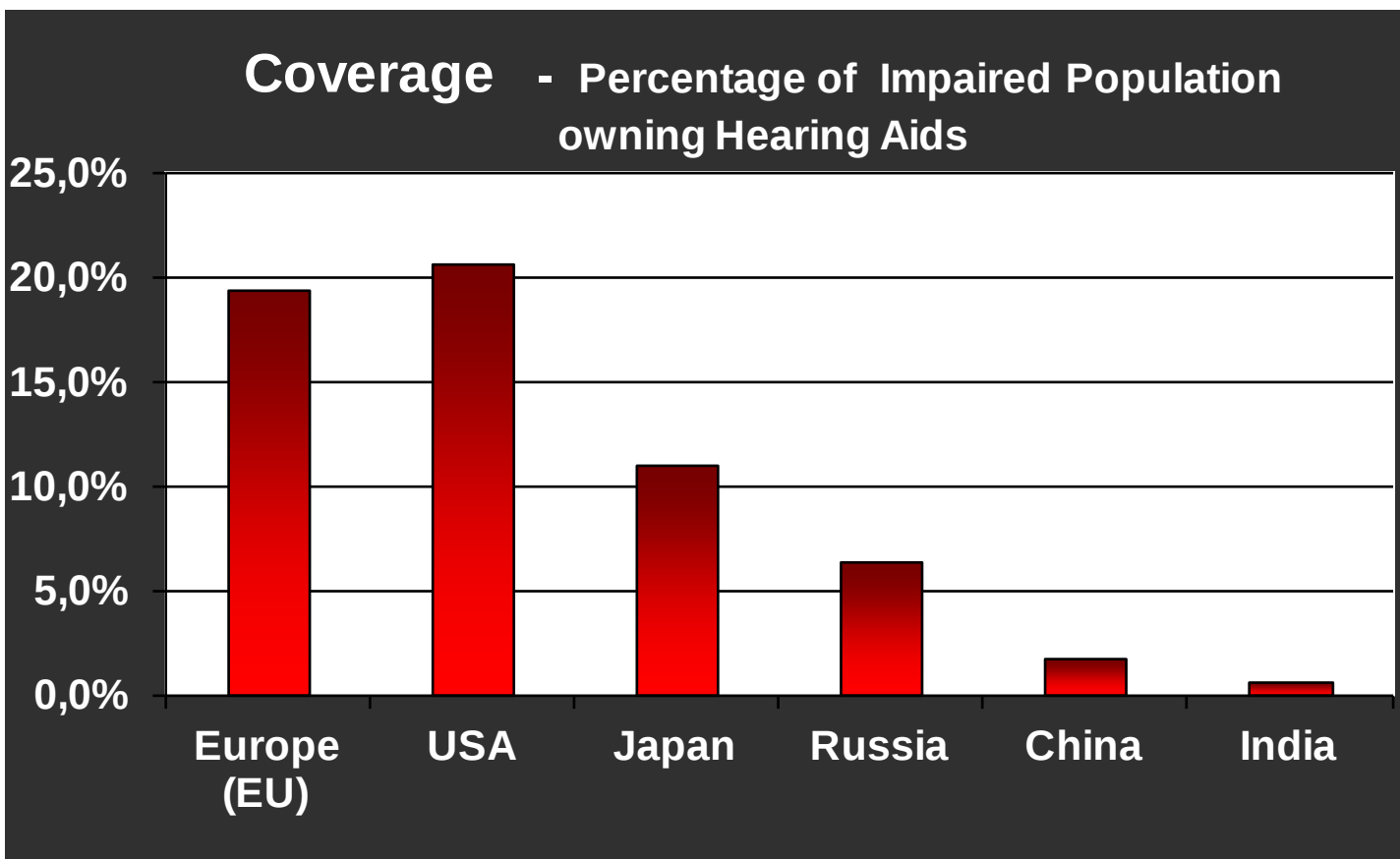
- ▶ How do you get from the number of hearing aids sold per year to coverage of hearing impaired people?
- ▶ Apart from unit sales objective data is generally not available
- ▶ Important parameters are:
 - What percentage of the population has a hearing loss?
 - Bilateral provision % – How many use two hearing aids ?
 - How long do people keep their hearing aids ?

Calculating coverage

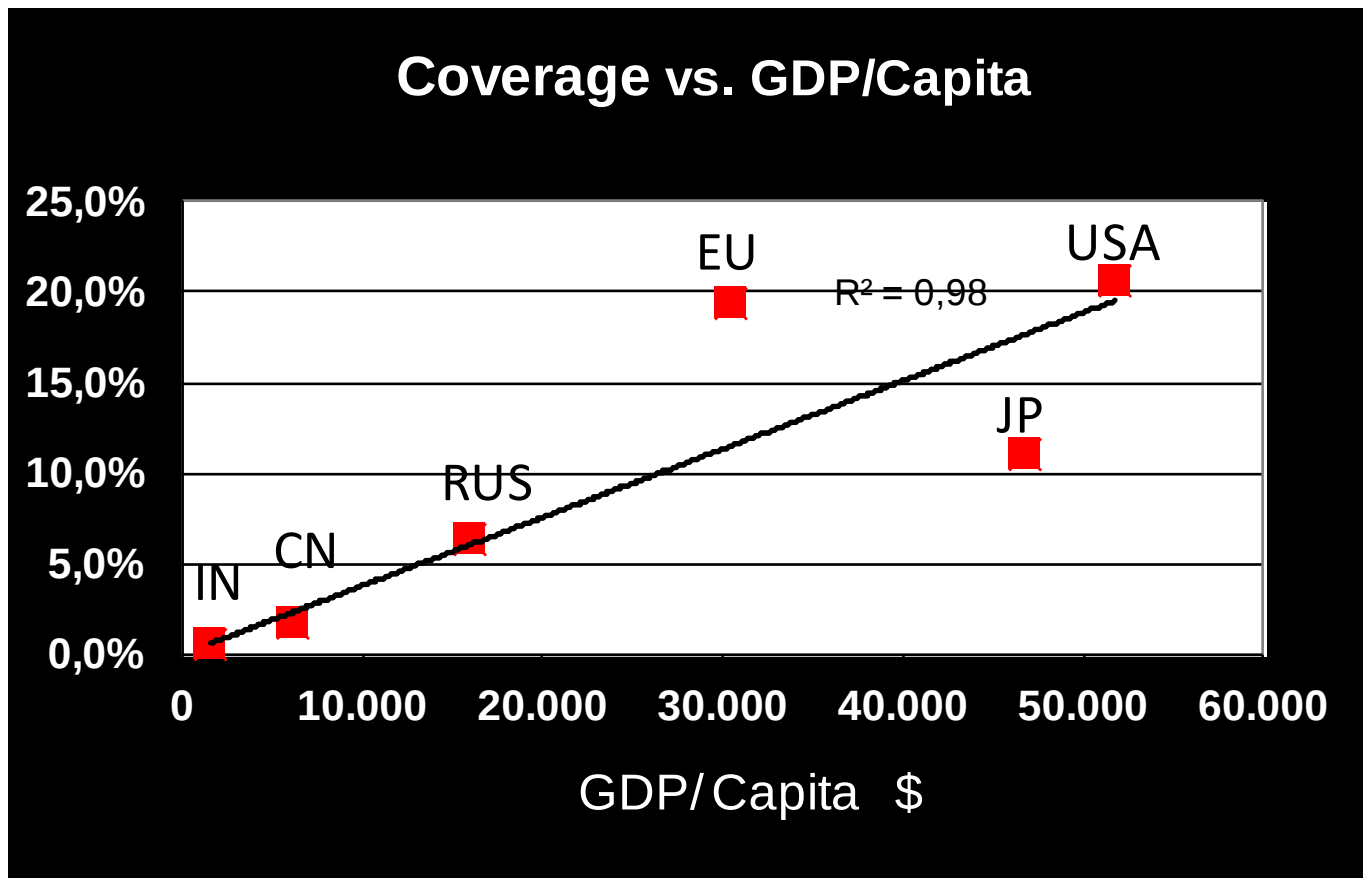
Population with hearing loss (over 18)		16%					Facts	Estimates	Result
Typical lifetime of hearing aid in years		5							
Country	Total Population	Population over age 18	In %	Impaired Population	Hearing Aids sold p.a.	Bilateral %	People Fitted p.a.	People Using HA	Coverage of Imp. Pop.
	Mill.(2012)	Mill.	%	Mill.	*1000 (2012)	(2012)	*1000	*1000	%
Europe (EU)	504	409	81%	65	4.137	64%	2.525	12.625	19,4%
USA	317	241	76%	38	2.853	80%	1.585	7.925	20,7%
Japan	127	107	84%	17	519	38%	376	1.880	11,1%
Russia	144	116	81%	18	260	10%	236	1.182	6,4%
China	1.362	926	68%	147	565	7%	528	2.640	1,8%
India	1.238	968	78%	154	200	7%	187	935	0,6%
Total	3.692	2.358		440	8.534	-	5.437	27.187	-

$$\text{Coverage of Impaired population} = \frac{\text{People using hearing aids}}{\text{Impaired population}}$$

Coverage



Hearing care comes with higher standards of living

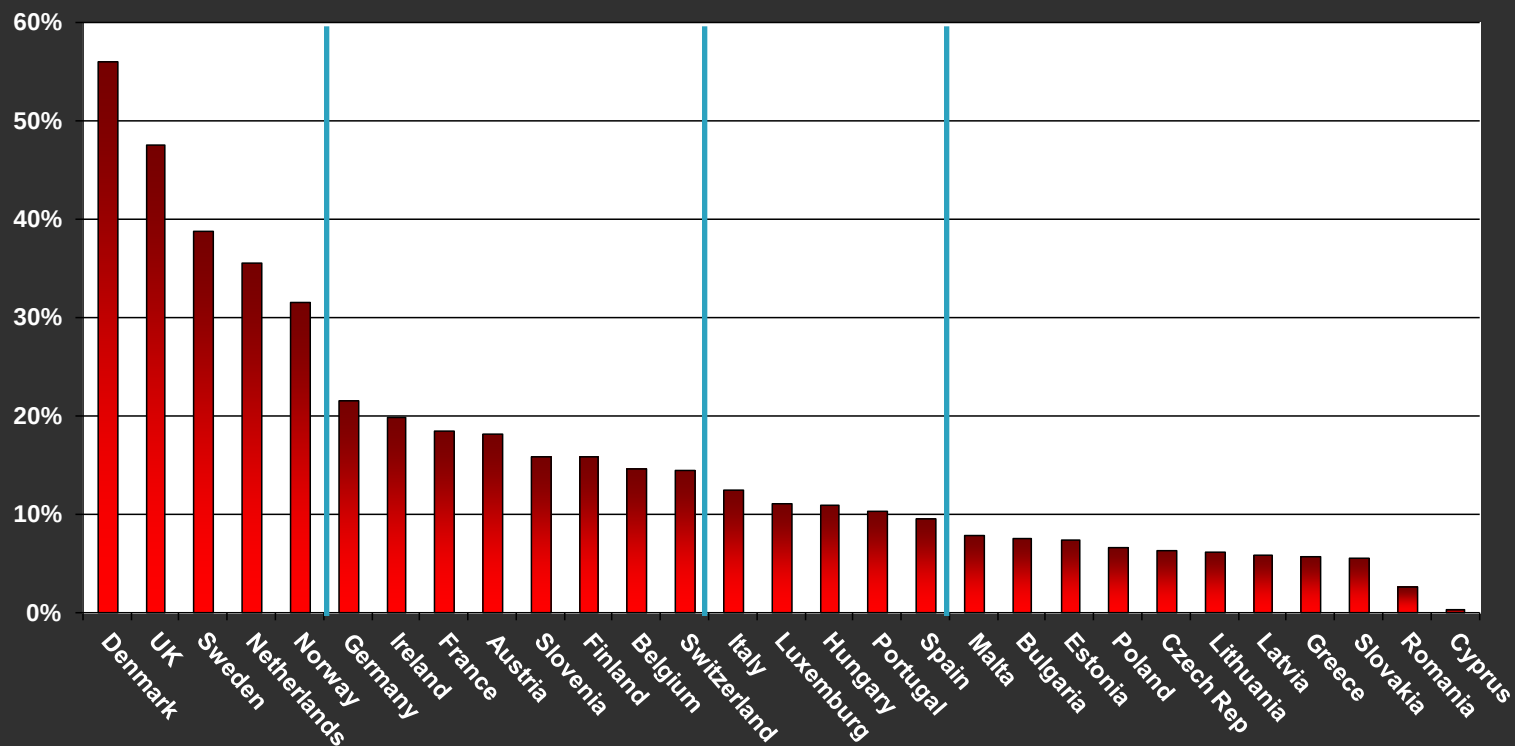


Europe is not one country !

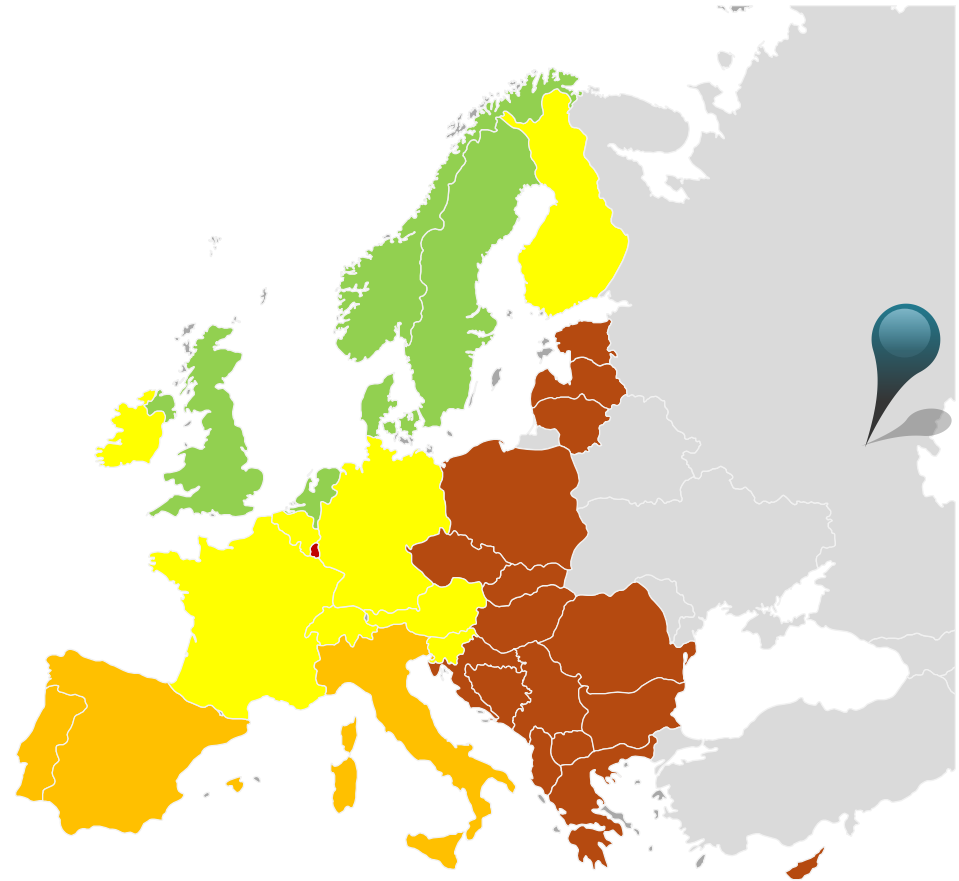
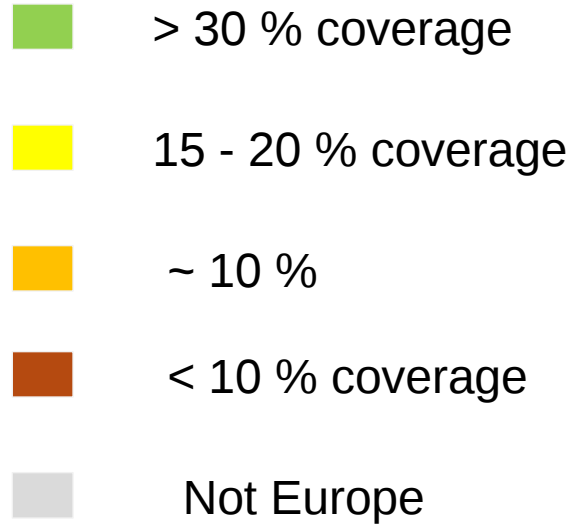
Country	Total Population-	Population over age 18	In %	Impaired Population	Hearing Aids sold p.a.	Binaural %	People Fitted p.a.	People Using HA	Coverage of Imp. Pop.
	Mill. (2011)	Mill.		Mill.	2012	(2012)	*1000	*1000	2007
Denmark	5,6	4,4	79%	0,7	143	83%	78	391	56%
UK	62,4	49,2	79%	7,8	1.223	64%	746	3.729	48%
Sweden	9,4	7,4	79%	1,2	151	65%	92	459	39%
Netherlands	16,7	13,2	79%	2,1	257	72%	149	747	36%
Norway	4,7	3,7	79%	0,6	65	74%	37	187	32%
Germany	81,8	68,4	84%	10,9	829	76%	471	2.355	22%
Ireland	4,5	3,5	79%	0,6	38	70%	22	112	20%
France	65,0	50,5	78%	8,0	519	74%	298	1.491	19%
Austria	8,4	7,0	84%	1,1	69	70%	41	203	18%
Slovenia	2,1	1,7	84%	0,3	10	15%	9	43	16%
Finland	5,4	4,2	79%	0,7	29	35%	21	107	16%
Belgium	11,0	8,7	79%	1,4	65	60%	41	203	15%
Switzerland	8,0	6,3	79%	1,0	49	68%	29	146	14%
Italy	60,6	50,7	84%	8,1	330	63%	202	1.012	13%
Luxemburg	0,5	0,4	79%	0,1	2	40%	1	7	11%
Hungary	10,0	8,2	82%	1,3	44	55%	28	142	11%
Portugal	10,6	8,7	82%	1,4	40	40%	29	143	10%
Spain	47,2	38,6	82%	6,1	166	40%	119	593	10%
Malta	0,4	0,3	84%	0,1	1	15%	1	4	8%
Bulgaria	7,5	6,1	82%	1,0	17	15%	15	74	8%
Estonia	1,3	1,1	82%	0,2	3	15%	3	13	7%
Poland	38,2	31,2	82%	5,0	77	15%	67	335	7%
Czech Rep	10,5	8,6	82%	1,4	20	15%	17	87	6%
Lithuania	3,2	2,6	82%	0,4	6	15%	5	26	6%
Latvia	2,3	1,9	82%	0,3	4	15%	3	17	6%
Greece	11,3	9,5	84%	1,5	20	15%	17	87	6%
Slovakia	5,4	4,4	82%	0,7	9	15%	8	39	6%
Romania	19,0	15,6	82%	2,5	15	15%	13	65	3%
Cyprus	0,8	0,7	84%	0,1	2	15%	2	9	0%
Europe Total	513,8	417,1		66,3	4.203,0	64%	2.565,3	12.826,6	19%

Europe is not one country !

Coverage in Europe - Percentage of Impaired Population owning Hearing Aids



4 groups



Why the differences?

- ▶ Coverage varies due to several factors:
 - General Standard of living
 - Subsidy level
 - Accessibility
 - Historical development

4 Hearing Care Delivery models

Coverage

	> 30 %	Northwestern: (UK, NL, DK, N, S, SF)
	15 - 20 %	Central European: (D, F, CH, A)
	~ 10 %	South European: (ES, PT, I)
	< 10 %	East European: (PL, CZ, SLO, RO, Baltic, Balkan, GR)

► Delivery models differ in several aspects:

- Subsidy levels
- Accessibility
- Governance

Northwestern Model 30 % +

(UK, NL, DK, N, S, SF)

- ▶ Strong support from public health care system:
 - Public hospitals with audiology departments offering free hearing aids of good quality for all citizens with recognized hearing loss.
 - Private dispensing exists alongside and provides 10 to 50 % of total units.
 - UK – private payment, DK – voucher for private dispensers
 - NL 75 % refund by public health care in private dispensers
 - Governance: Referral from ENT for collection of refund/voucher

Central European Model 15–20 %

(D, F, B, CH, A)

- ▶ Insurance based system – some public support
 - Private dispensing with high accessibility
 - Partial coverage of cost by mandatory health insurance policies – 10–20 % of top level hearing aid
 - Governance: ENT doctors diagnose, refer and verify results for release of insurance money.

South European Model ~ 10 %

(ES, PT, I)

- ▶ Private payment – minimal public support
 - Private dispensing with decent accessibility
 - Partial public coverage of cost for seriously exposed groups
 - Governance: ENT doctors diagnose and refer patients

East European Model < 10 %

(PL, RO, H, CZ etc)

- ▶ Private payment – no public support
 - Private dispensing with low accessibility
 - Some coverage of cost for seriously exposed groups
 - Governance: Varies from none to ENT referral system

Setting standards for hearing aid fitting

- ▶ French initiative in 2007 to create a standard for:
"Services offered by Hearing Aid professionals"

- ▶ Adopted in 2010, the EN 15927 standard sets forth requirements for the following aspects of hearing aid fitting:

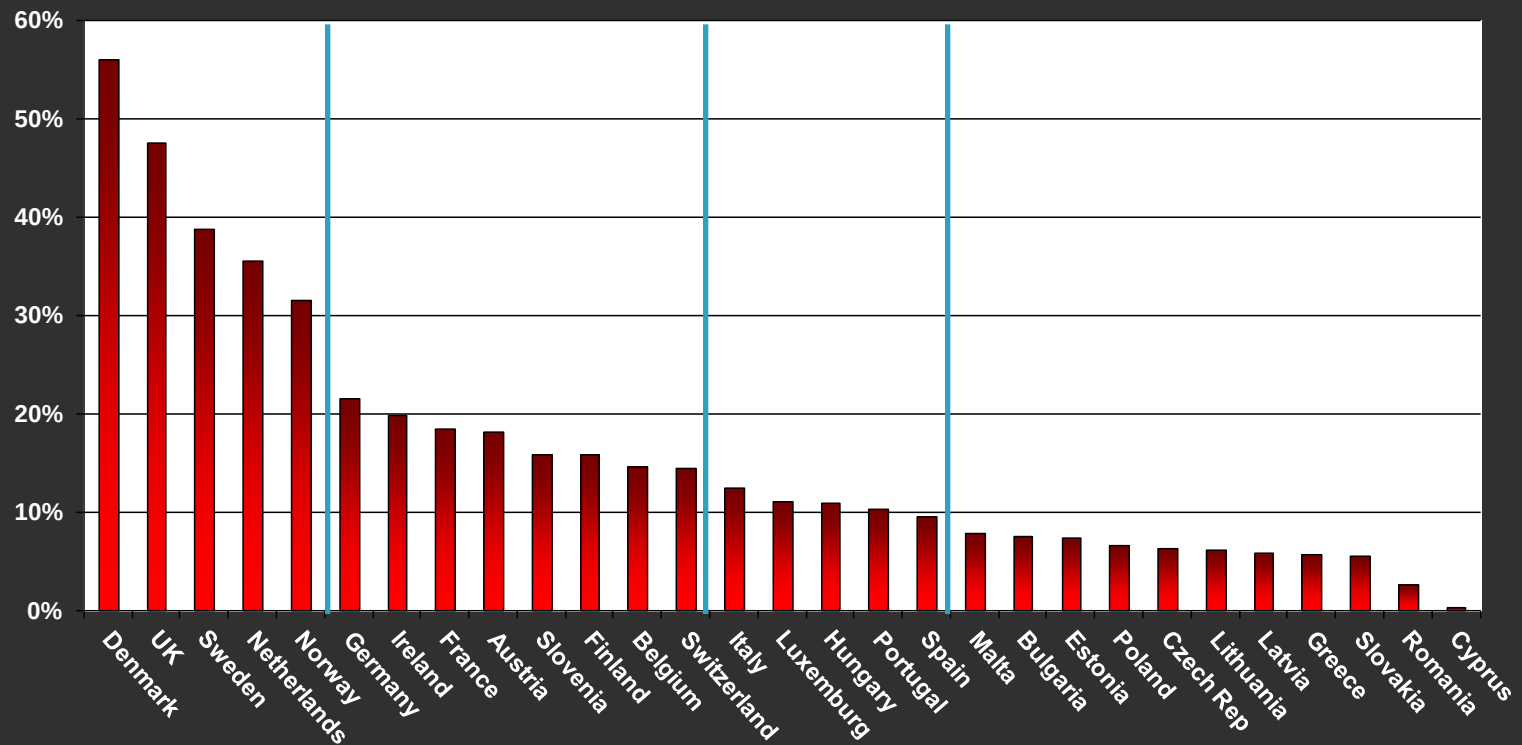
- Education
- Facilities
- Equipment
- Fitting process
- Quality management system

EUROPEAN STANDARD	EN 15927
NORME EUROPÉENNE	
EUROPÄISCHE NORM	August 2010
ICS 11.180.15	
English Version	
Services offered by hearing aid professionals	
Services offerts par les audioprothésistes	Dienstleistungen in der Hörakustik
This European Standard was approved by CEN on 12 June 2010.	
CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national	

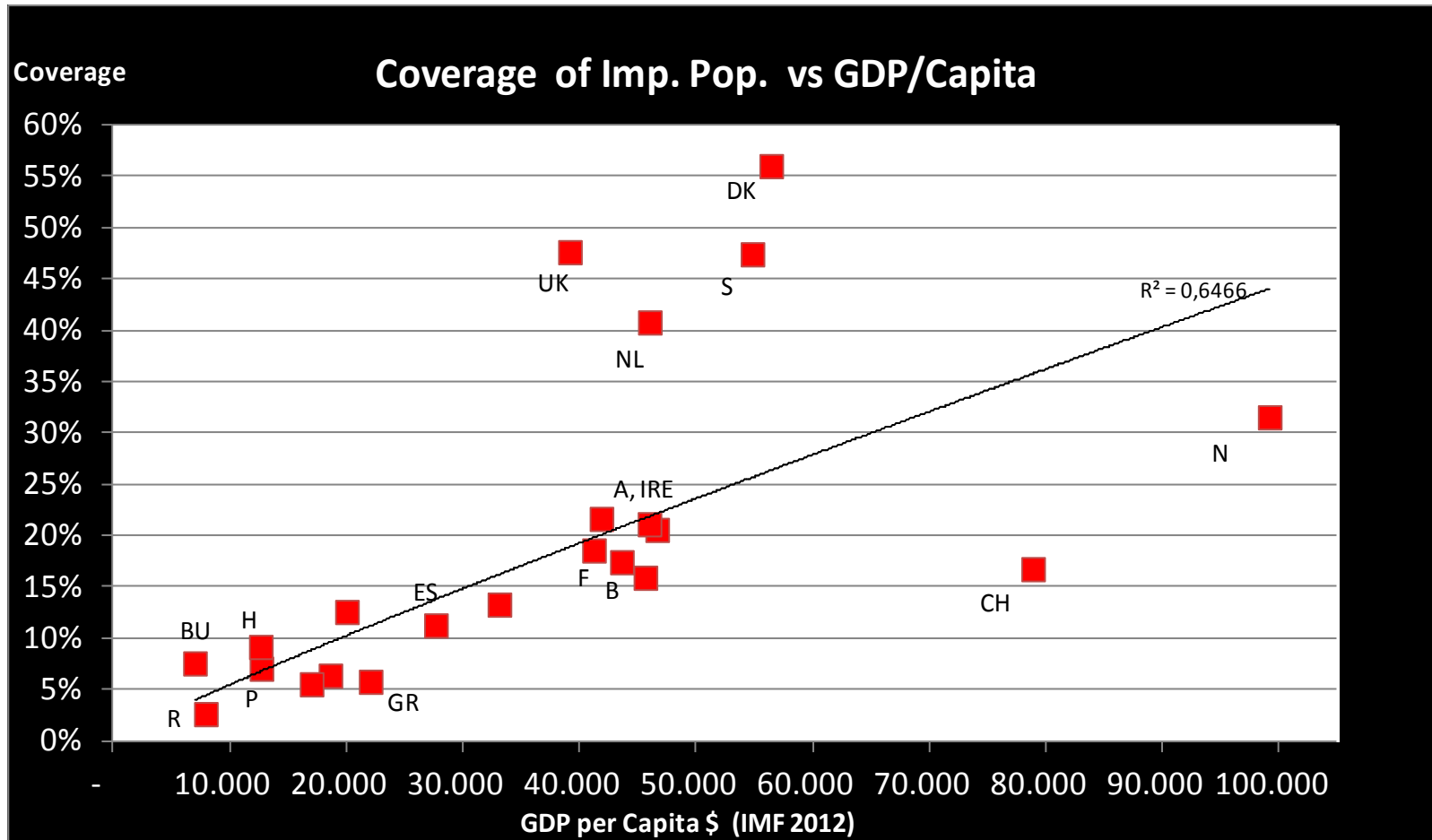
- ▶ The scope is all typical age related losses acknowledging that children, cochlear implants and multiple handicaps require further efforts

Europe is not one country !

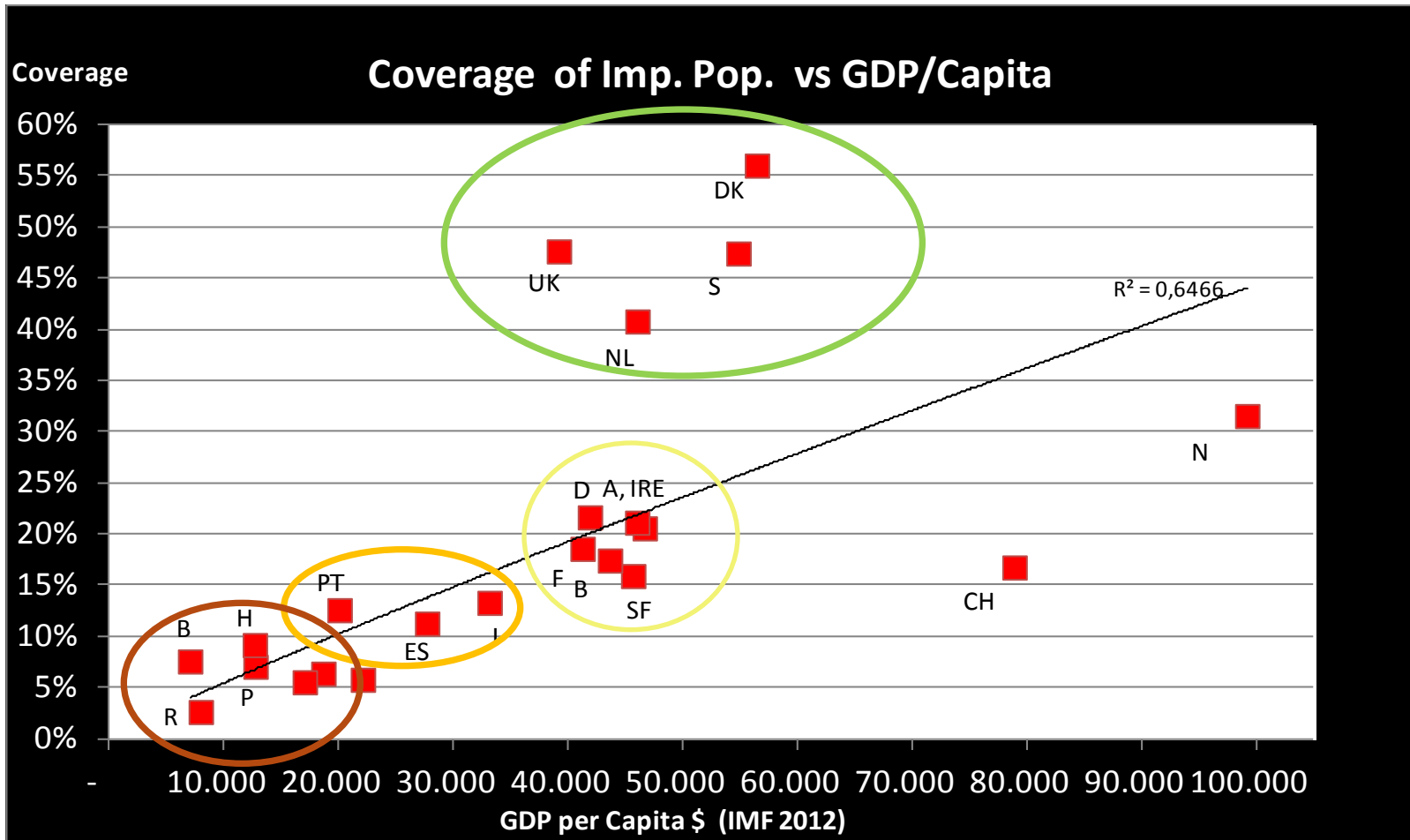
Coverage in Europe - Percentage of Impaired Population owning Hearing Aids



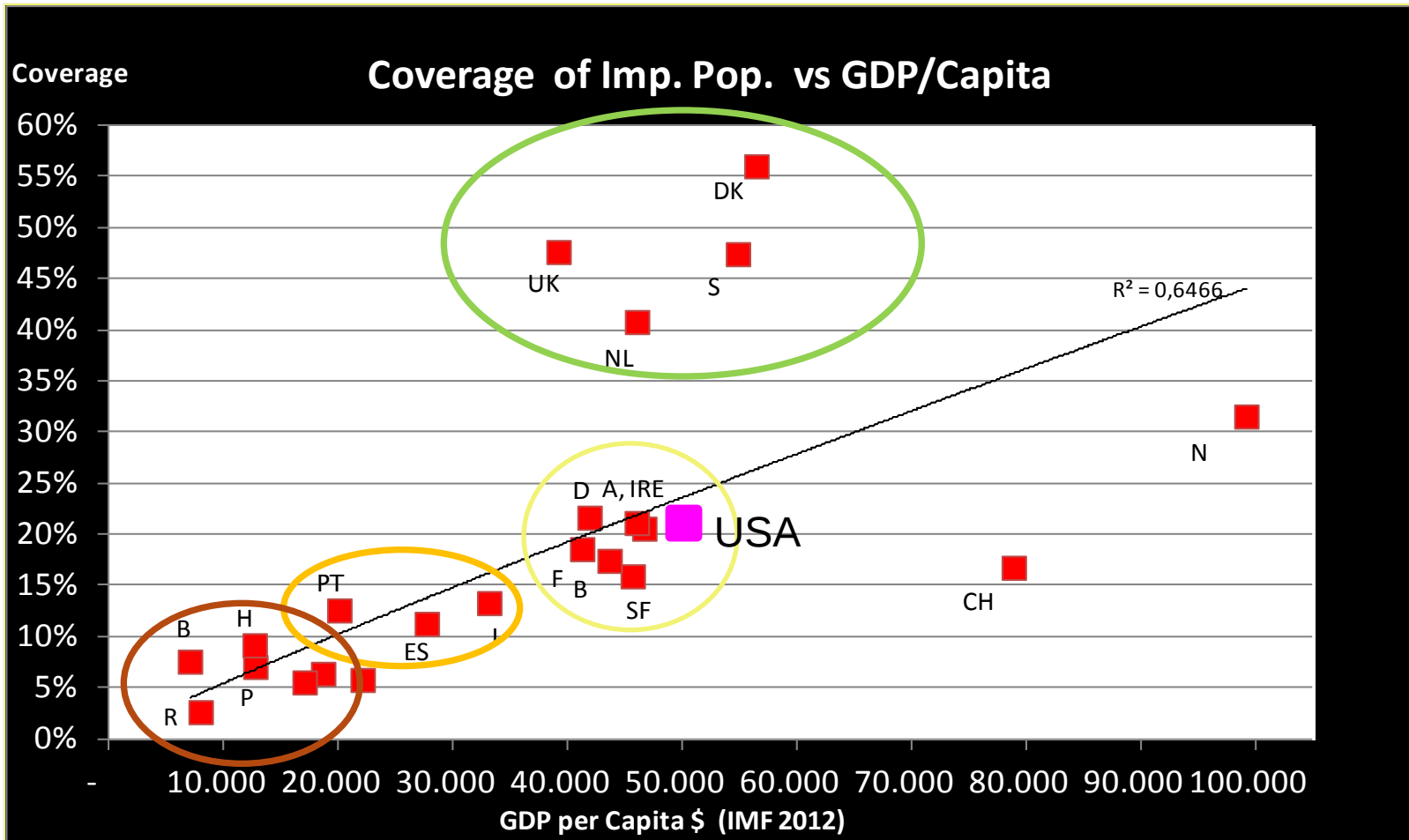
The GDP dimension



Adding distribution models

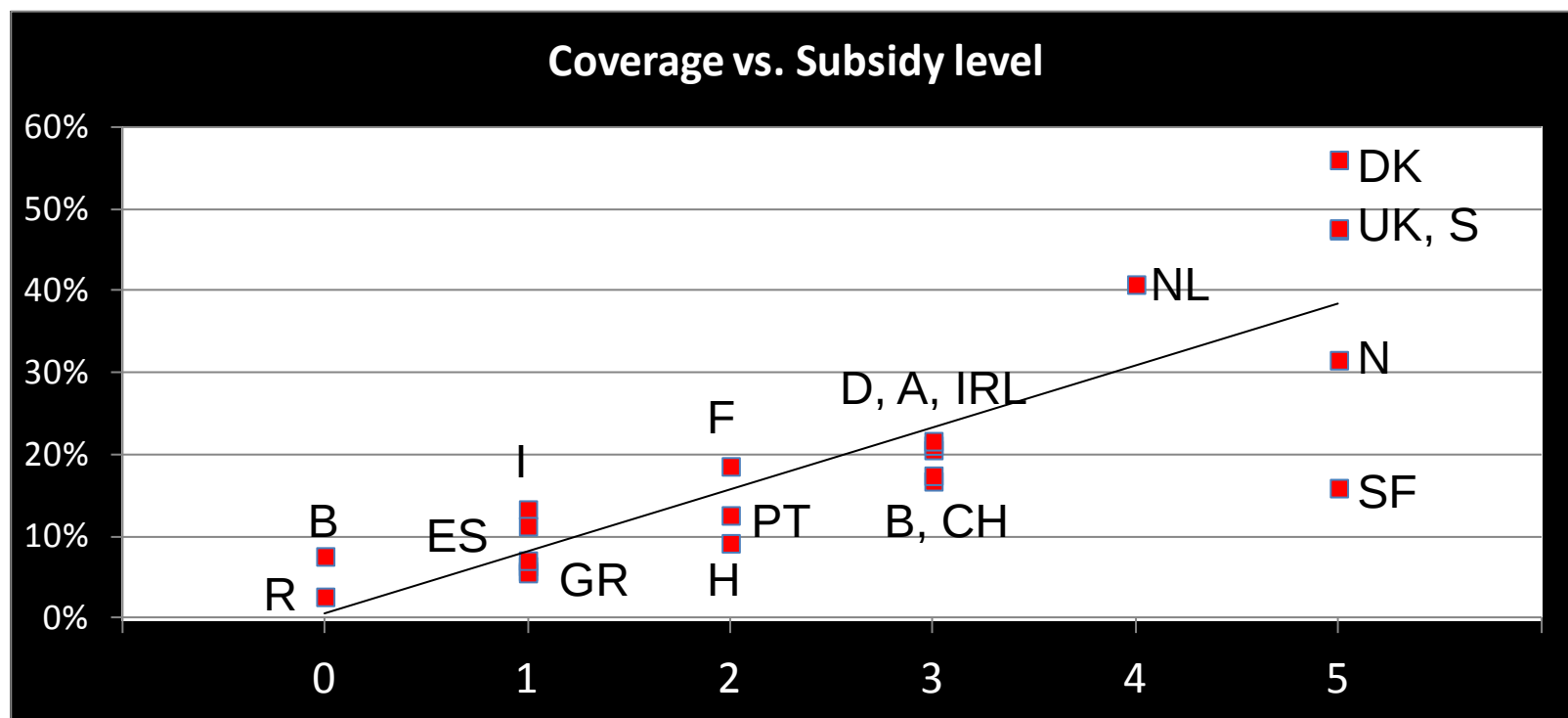


Adding distribution models



How about subsidies?

- ▶ 6 levels ranging from 0 to 100 %



Case story Denmark

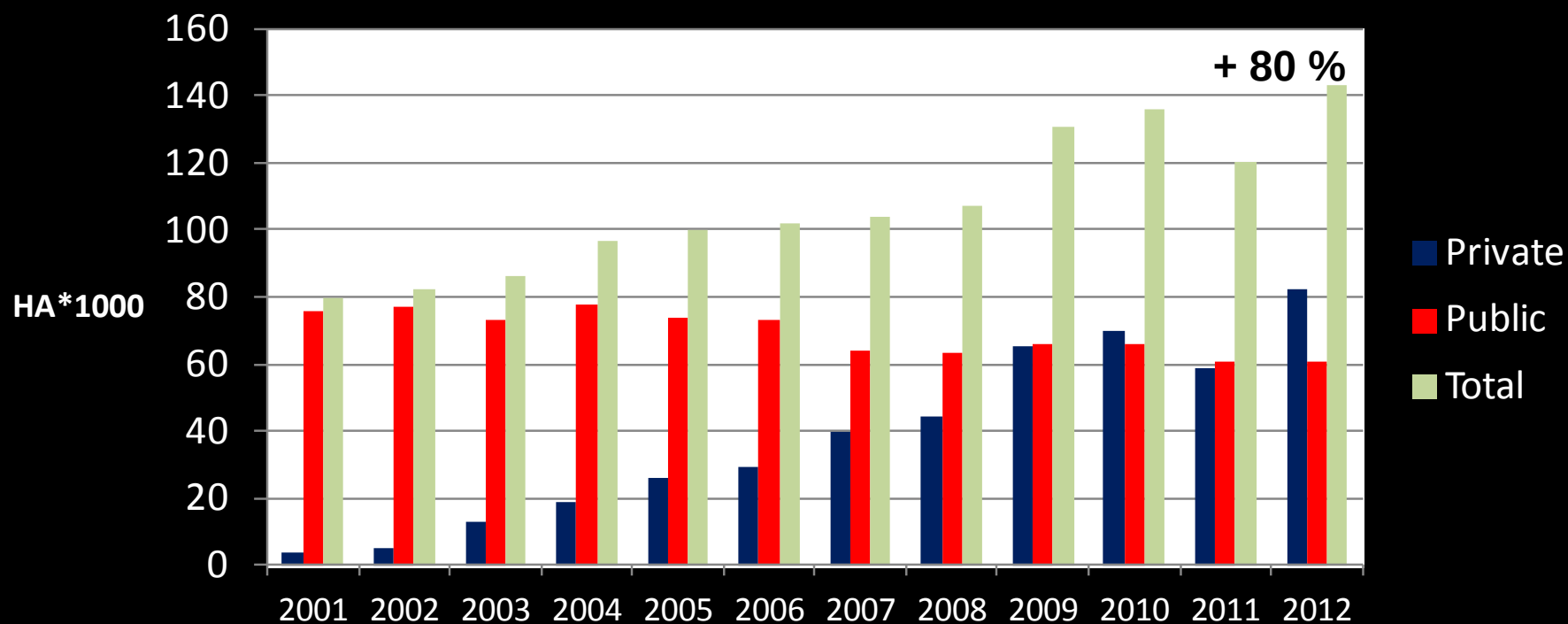
- ▶ Denmark introduced free hearing aids for anyone in need in 1960 provided by audiology clinics at public hospitals
- ▶ Each clinic had a wide choice of products from suppliers approved at bi-annual tenders
- ▶ The coverage in 2000 was among the best in the world – around 25 %
- ▶ Waiting lists for the 18 clinics were normally from 3 – 8 months

- ▶ In 2001 a new system opened up for a private dispensing
 - Voucher for fitting in private shop instead of hospital clinic
 - Voucher value allowed a good basic hearing aid
 - The client could choose to upgrade to more advanced products for private payment

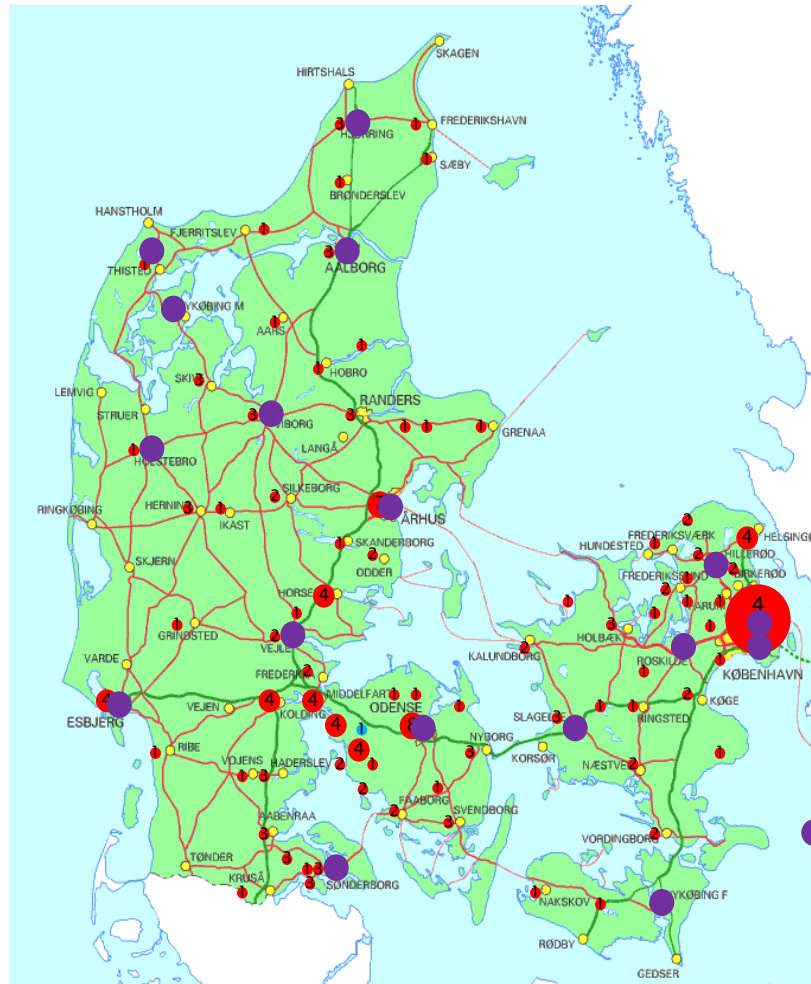
- ▶ Many private dispensers were established
 - Considerable drain of staff from public clinics – waiting time increased
 - High media exposure – advertising in newspapers & TV

Denmark cont'd

Development in Hearing Aid sales per Channel in DK



Denmark cont'd



- Public clinic

4 Private clinic

Conclusions

- ▶ Hearing aid coverage is basically a function of standard of living
- ▶ Subsidies clearly increase coverage
 - In particular when the subsidy fully covers a decent hearing aid
- ▶ Accessibility & visibility increase coverage

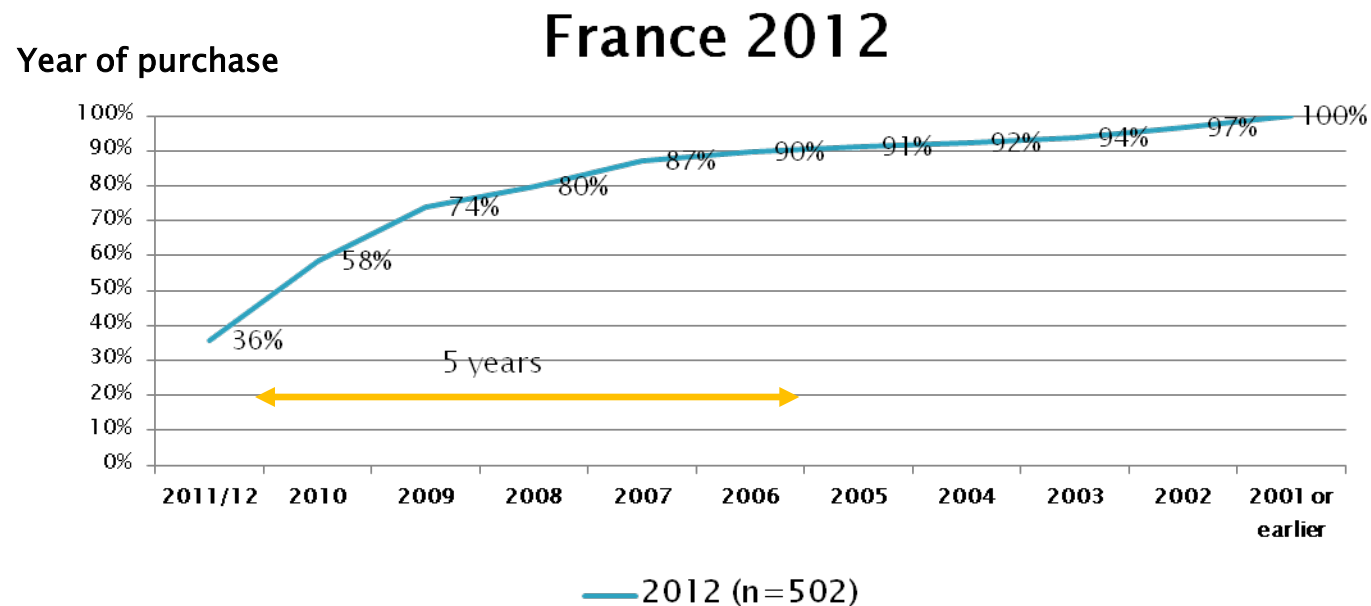
Future outlook

- ▶ High pressure on social costs due to aging population
- ▶ Hearing aids are getting better every year
 - A higher proportion of the hearing impaired population will be inclined to acquire hearing aids
- ▶ Reductions in subsidies and increased price pressure
- ▶ Differentiated service packages
- ▶ People better get ready to pay part of it themselves



Back up slides

Year of Purchase of Current Hearing Aid

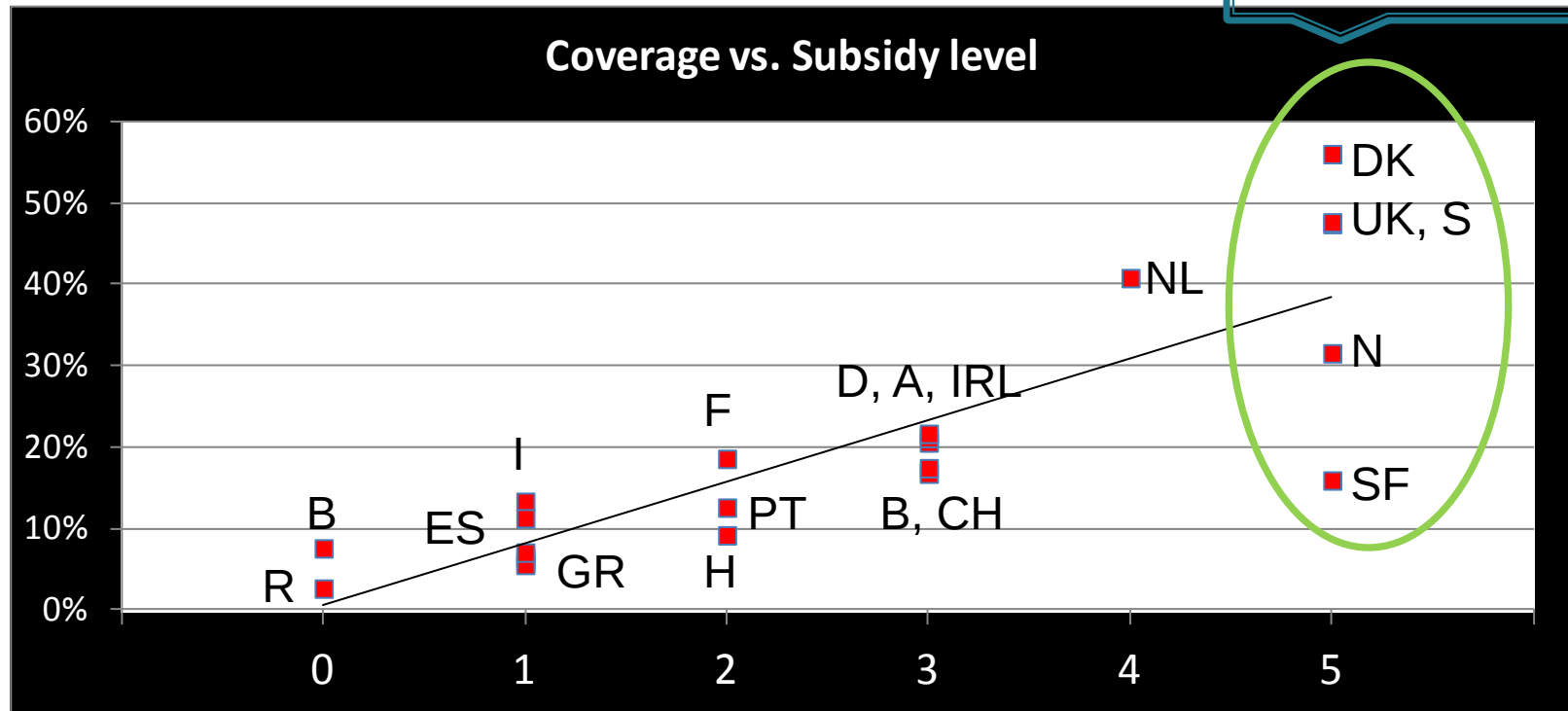


Age of currently owned HAs (Mean):
2012: 2.5 years

How about subsidies?

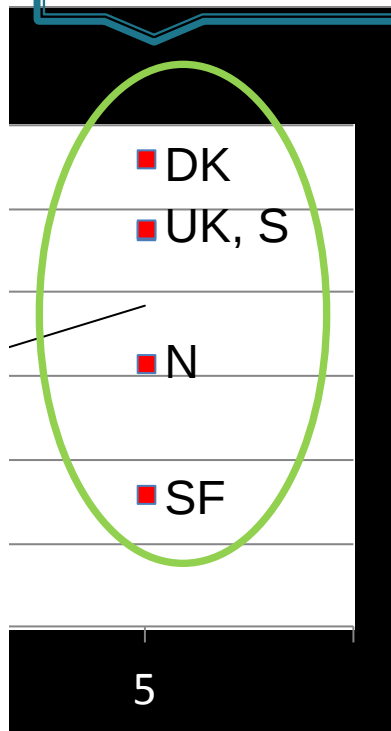
- ▶ 6 levels ranging from 0 to 100 %

What is going on here?



Could it be coverage with POS?

What is going on here?

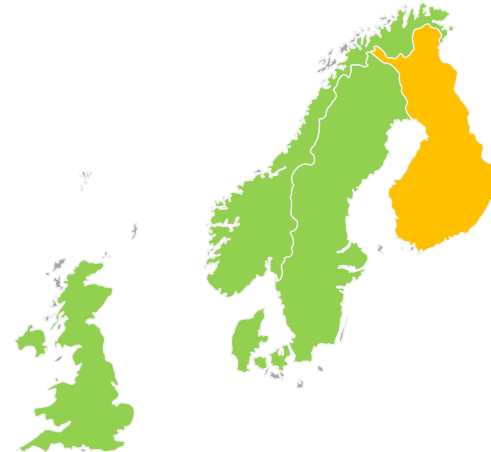


POS per 100.000
Hearing impaired

DK: 35
S: 14 UK: 9

N: 12

SF: 9



- ▶ More likely it is because Finland more recently adopted free hearing care