

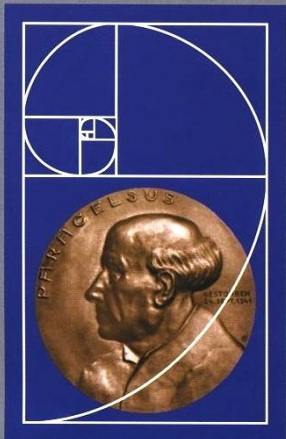
4<sup>th</sup>

International Congress  
of Breast Disease Centers

2014

## Ultrasound in an organized screening program

**P**ARACELSUS  
MEDIZINISCHE PRIVATUNIVERSITÄT



**C. WEISMANN**

Diagnostic und Interventional Breast Unit  
Univ. Inst. of Radiology



General Hospital-Salzburg



## SCIENTIFIC BACKGROUND





## Benefit of additional Screening US

	N. Patients (N. maligne)	Population	Sensitivity
Buchberger et al. 1999, 2000	8 970 (182)	mean age: 49a ACR 2,3,4 without clinical find.	MG: 73% MG+US: 99% <b>(combination +26% !)</b>
Kolb et al. 2002	5 418 (146)	mean age: 59,6a ACR 2,3,4 without clinical find.	MG: 77,6% MG+US: 97% <b>(combination +19,4% !)</b>
Leconte et al. 2003	4 236 (161)	mean age: 60,7a ACR 1,2,3,4 without clinical find.	MG: 69% MG+US: 97% <b>(combination +28% !)</b>





# Supplemental US Screening yield

## Prospective studies (*Mundinger*)

Author	year	n	Prevalence
Eagan & Eagan	1984	2 530	1/1000
Giusepetti et al.	1989	11 254	1/1000
Madjar et al.	1994	1 016	4/1000
Gordon & Goldenberg	1995	12 706	3/1000
Buchberger et al.	1999	6 113	3/1000
Kolb et al.	2002	13 547	3/1000
Berg et al.	2008	2712	4/1000

T-size and prevalence comparable to screening mammography !



2014



SCIENTIFIC BACKGROUND

HISTORY



# Breast-CA-Screening Project Salzburg

evaluation time period: 5/08 - 1.5.2010  
N = 6.495

- 1756 (27%) women with BI-RADS 1 or 2 (first reader) showed dense tissue grade 3 or 4 in MG  
Consequence: additional US screening

- Results from US screening:

504 overall-BI-RADS 1

1.229 overall-BI-RADS 2

18 overall-BI-RADS 3 (1%)

5 overall-BI-RADS 4 (0,3%)

*incl. 3 cancers (0,2%)*

# Breast-CA-Screening Project Salzburg

evaluation time period: 5/08 - 1.5.2010  
N = 6.495

- 163 BI-RADS 3 (2.5%) incl. 18 resulting from US in dense breasts
- 61 BI-RADS 4 (0.9%) incl. 5 resulting from US in dense breasts
- 16 BI-RADS 5 (0.25%)
- 240 BI-RADS  $\geq 3$  (3.7%) incl. 23 resulting from US in dense breasts



# Breast-CA-Screening Project Salzburg

evaluation time period: 5/08 - 1.5.2010  
Assessment N = 77 (1 woman with bilateral cancer)

- 61 BI-RADS 4
- 16 BI-RADS 5

32 CA's von 6495 (0.5%)

5 CA's/1000 (0.5%) detection rate

- Recall: 1.2 %





# Breast-CA-Screening Project Salzburg

evaluation time period: 5/08 - 1.5.2010  
Assessment N = 77 (1 woman with bilateral cancer)

## Biopsy results:

- 44 (58%) benign needle biopsies and 32 (42%) CA's  
ben : mal = 1.4 : 1  
1 woman downgraded from BI-RADS 4 to BI-RADS 3
- 12 Biopsies (ben + mal) in 1000 women (1.2%)



# Breast-CA-Screening Project Salzburg

evaluation time period: 5/08 - 1.5.2010

32 CA 's

EU Requirement

- |                    |    |        |     |
|--------------------|----|--------|-----|
| • Insitu CA:       | 3  | (9 %)  | 10% |
| • T1 $\leq$ 10 mm: | 11 | (34 %) | 20% |
| • T1 $\leq$ 15 mm: | 19 | (59 %) | 50% |
| • T1 $\leq$ 20 mm: | 22 | (69 %) |     |
| • T2 > 20 mm:      | 7  | (22 %) |     |



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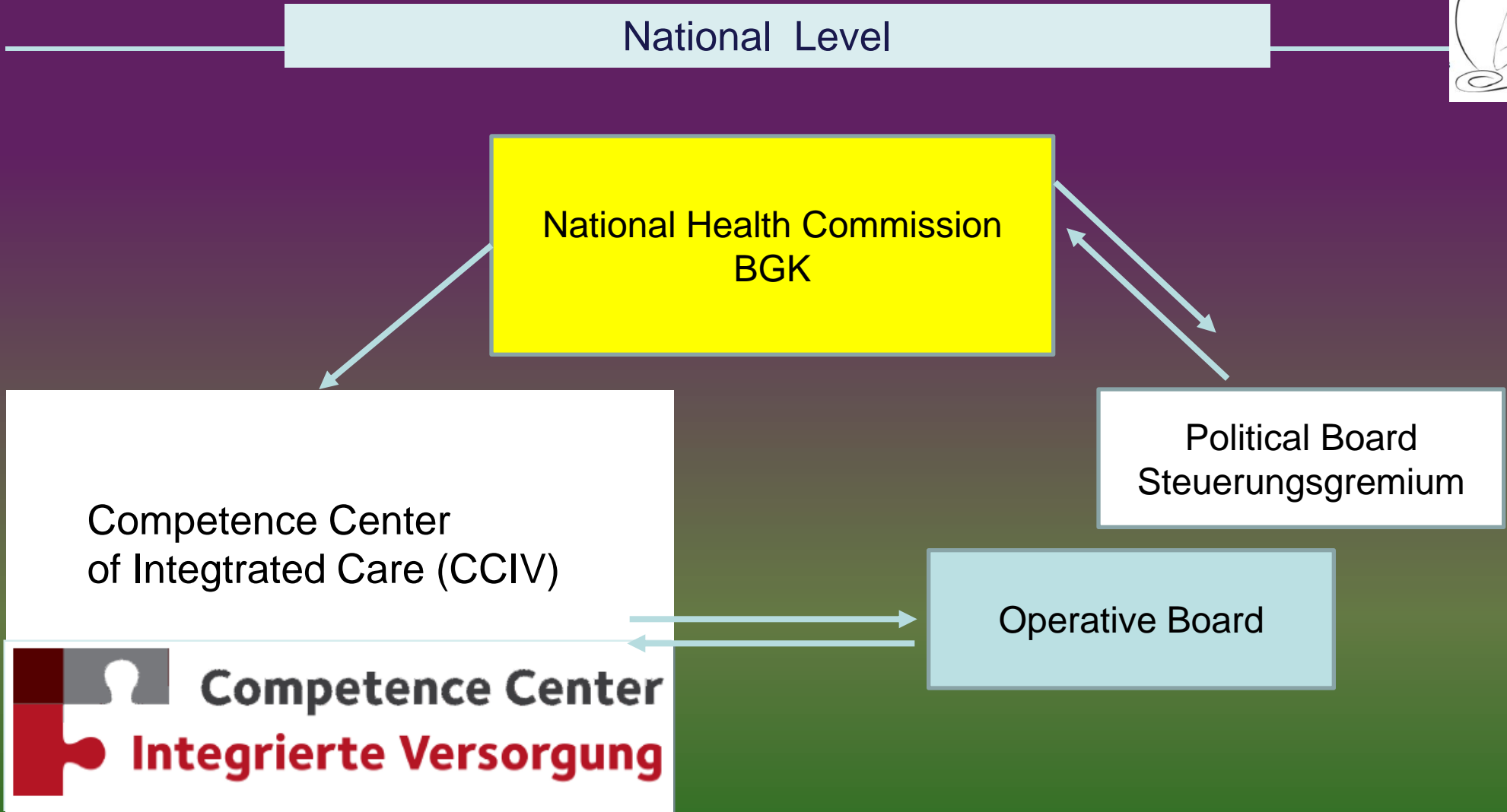
SCIENTIFIC BACKGROUND

HISTORY

**AUSTRIAN SCREENING PROGRAM STRUCTURE**



# AUSTRIAN SCREENING PROGRAM STRUCTURE





# AUSTRIAN SCREENING PROGRAM STRUCTURE

## National Level

Competence Center  
of Integrated Care (CCIV)

Wiener Gebietskrankenkasse  
Abt. Gesundheitspolitik und  
Prävention



Program Organisation CCIV



Quality assurance ÖÄK



Evaluation GÖG



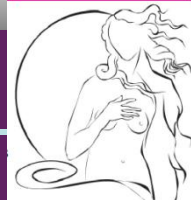
Data management HVB



Invitation management WGKK



Public media CCIV



## Regional Level

191 Certified screening sites (all over Austria)

9 Regional responsible screening radiologists (all over Austria)



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SCIENTIFIC BACKGROUND

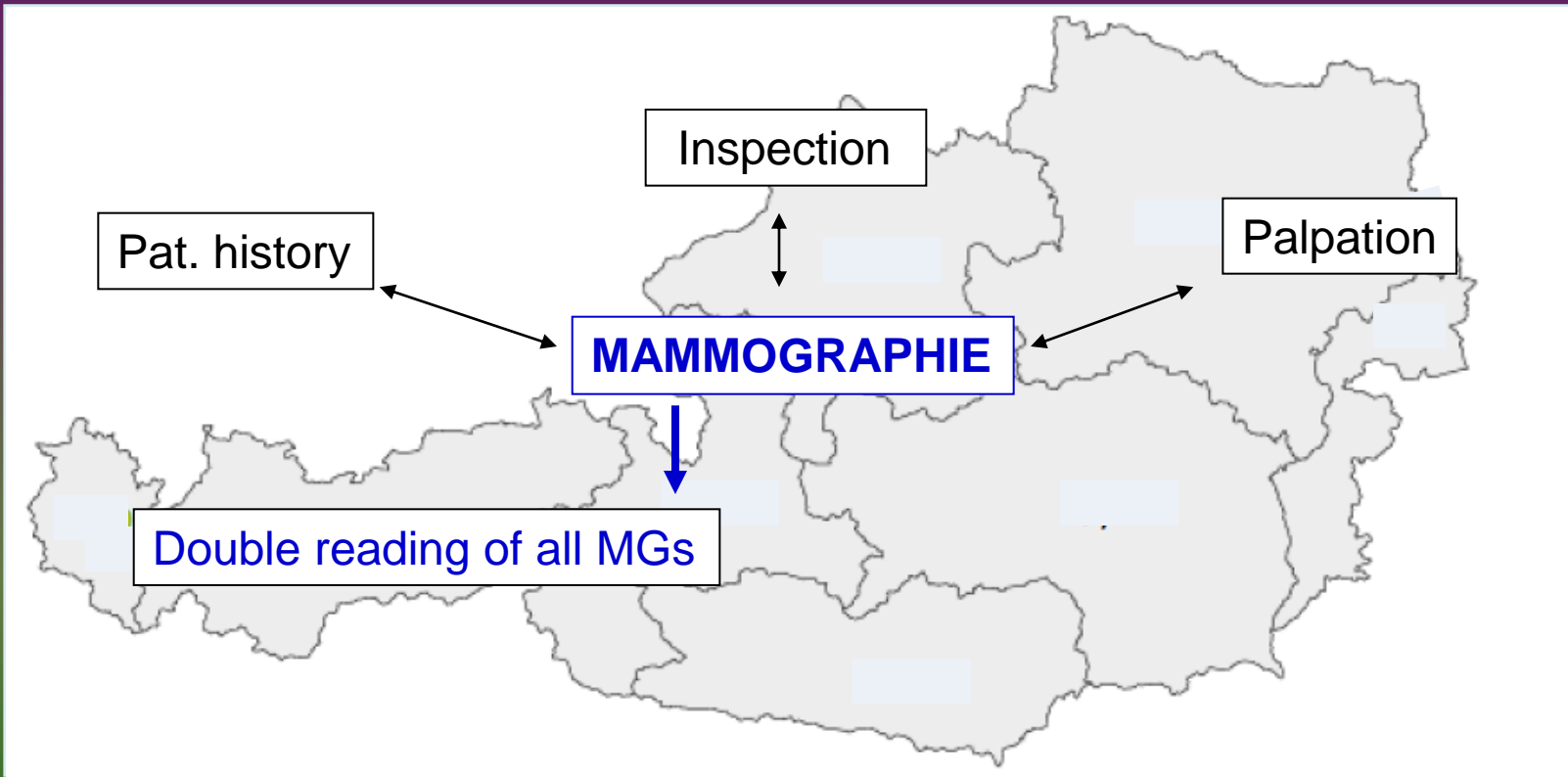
HISTORY

AUSTRIAN SCREENING PROGRAM STRUCTURE

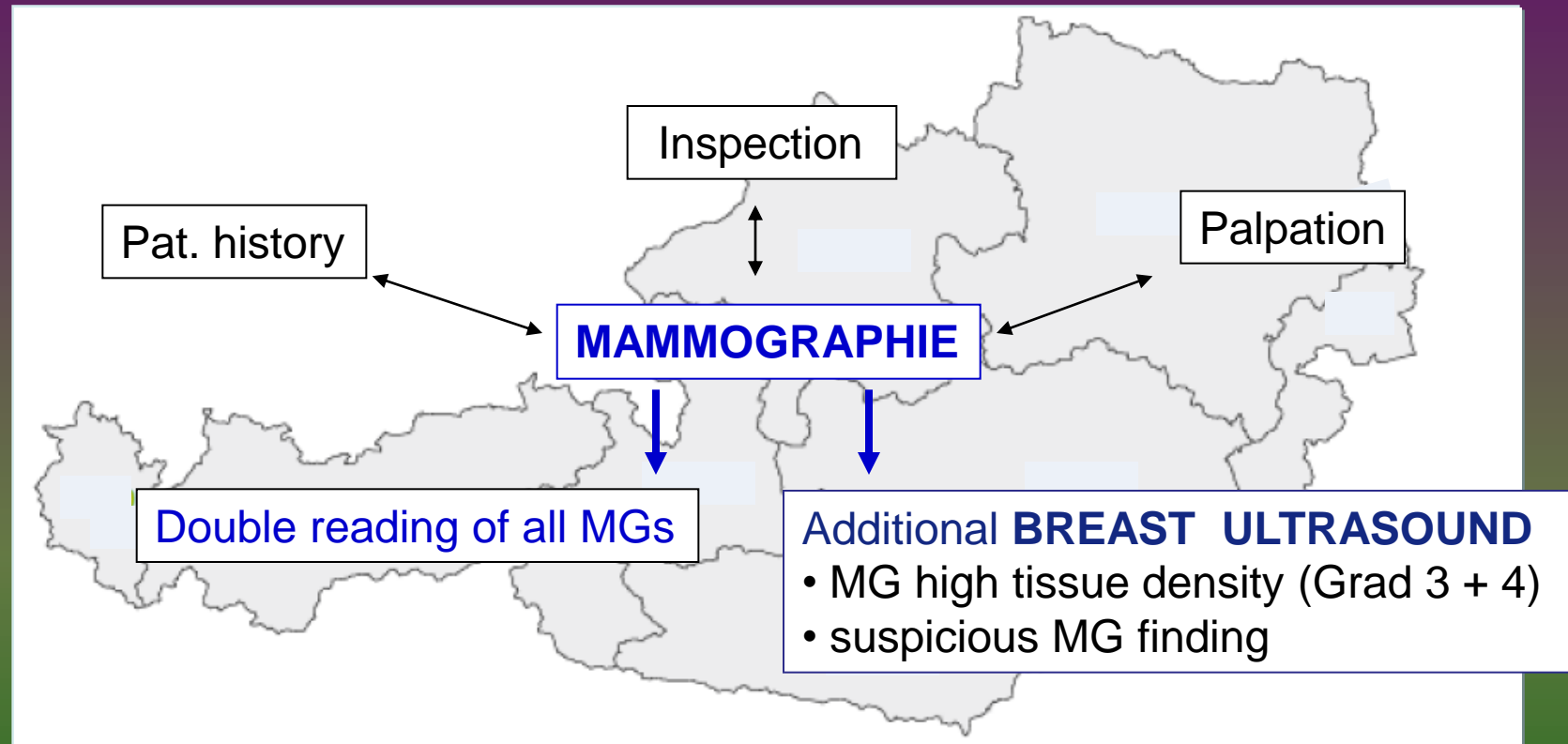
**SCREENING INVESTIGATION MANAGEMENT**



# SCREENING INVESTIGATION MANAGEMENT



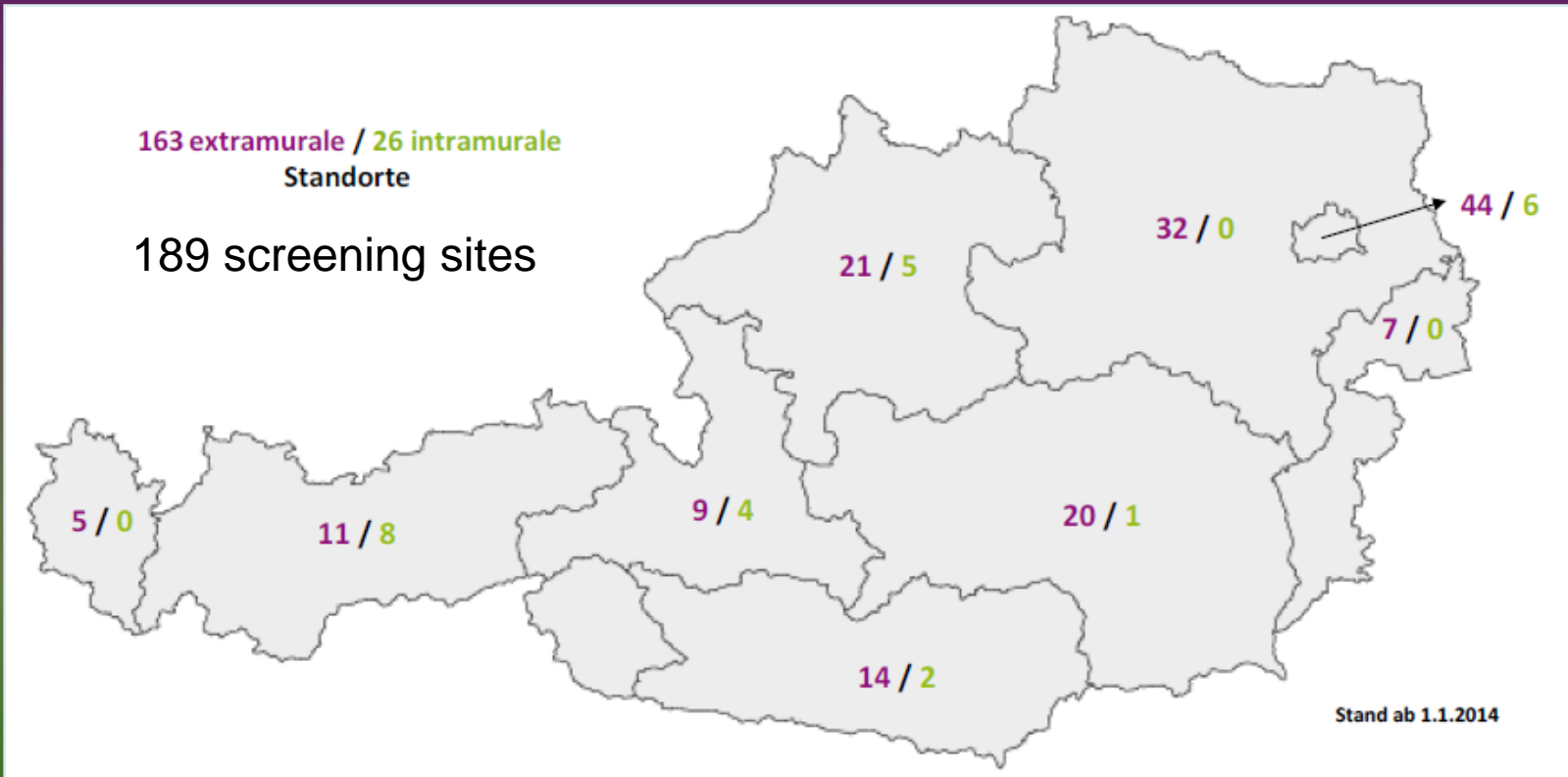






# SCREENING INVESTIGATION MANAGEMENT

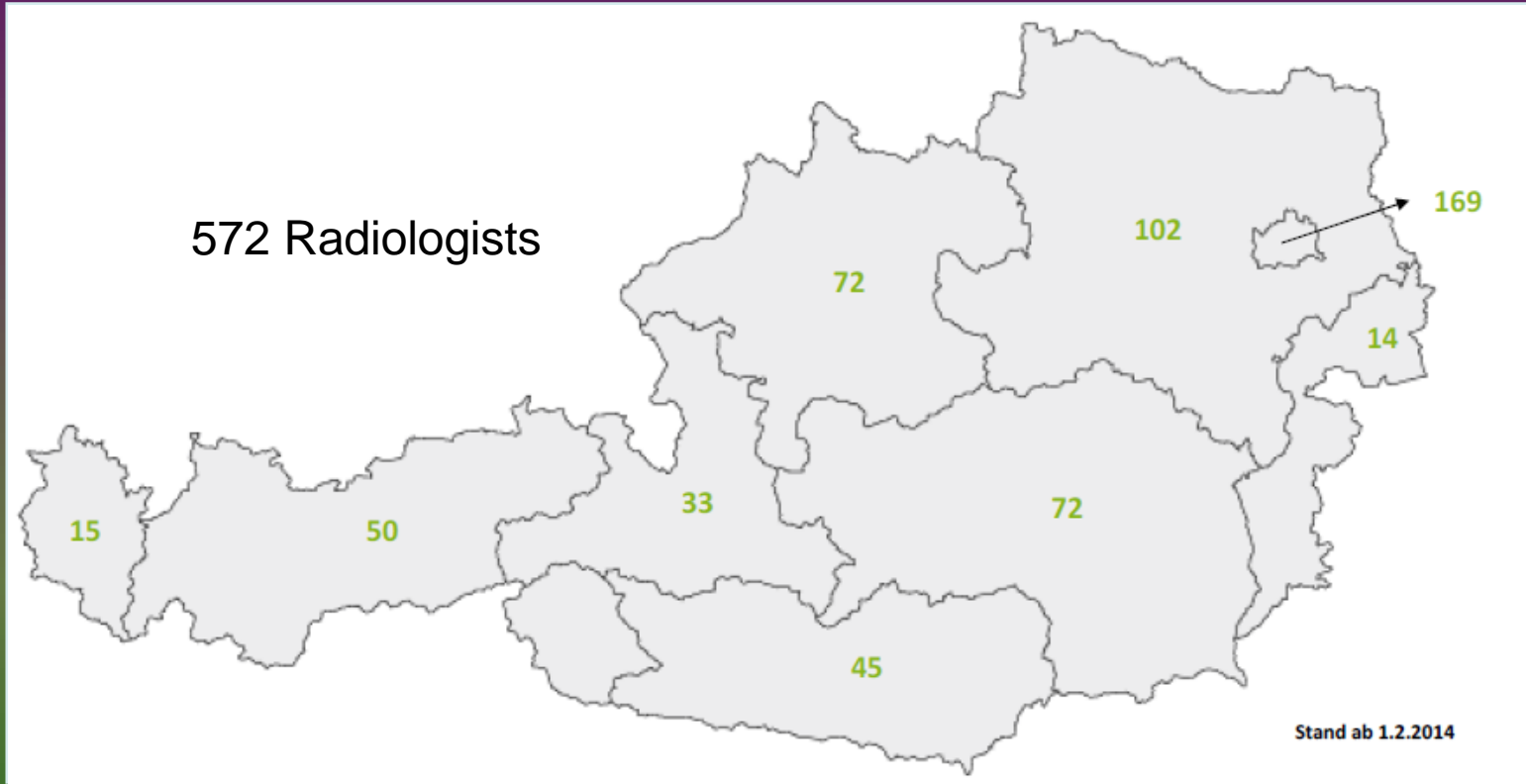
## Number of screening sites



# SCREENING INVESTIGATION MANAGEMENT



Number of certified screening radiologists





# SCREENING INVESTIGATION MANAGEMENT

## Education for screening radiologists and technicians

ÖÄK-Zertifikat Mammadiagnostik			
ZERTIFIZIERUNG	p e r s o n e n b e z o g e n		
	<p>Weiterbildung RadiologInnen Zertifizierung</p> <p>Multidisziplinärer Kurs (10 DFP-Punkte) und Befunderkurs (22 DFP-Punkte)</p>	<p>Laufende Fortbildung RadiologInnen Rezertifizierung innerhalb 36 Monate</p> <p>Nachweis von 24 DFP-Punkten (Senologie) und jährliche Qualitätszirkel</p>	<p>Fallsammlungsprüfung Zertifizierung</p> <p>Positive Absolvierung einer Fallsammlungsprüfung</p>
	s t a n d o r t b e z o g e n		
<p>Weiterbildung RT /MTF Zertifizierung</p> <p>Multidisziplinärer Kurs und Erstellerkurs</p>	<p>Laufende Fortbildung RT / MTF Rezertifizierung innerhalb 36 Monate</p>	<p>Technische Ausstattung und Qualitätssicherung</p> <p>Digitale Mammographiegeräte und techn. Qualitätssicherung nach EUREF-Ö</p>	<p>Fallzahlen standortbezogen (Bei Erstzertifizierung Selbstangaben)</p> <p>Erstellung von Mammographieaufnahmen von mind. 2000 Frauen/Jahr und Standort</p>





SCIENTIFIC BACKGROUND

HISTORY

AUSTRIAN SCREENING PROGRAM STRUCTURE

SCREENING INVESTIGATION MANAGEMENT

INVITATION MANAGEMENT





## INVITATION MANAGEMENT

Number of invitations within 2 years (age 45-69 y.)

Bundesland	pro Monat	Gesamt
Burgenland	2.400	57.600
Kärnten	4.300	103.200
Niederösterreich	12.000	288.000
Oberösterreich	9.500	228.000
Salzburg	4.000	96.000
Steiermark	9.000	216.000
Tirol	10.000*	150.000
Vorarlberg	2.500	60.000
Wien	12.000	288.000
Gesamt	65.700	1.486.800

\* im ersten Jahr ca. 10.000, im zweiten Jahr ca. 2.000 pro Monat





# INVITATION MANAGEMENT

Number of invitations within 2 years (age 45-69 y.)

Jahrgänge	Einladungsmonat	Jahrgänge	Einladungsmonat
1944 – 1945	Jän.2014	1959 - 1960	Feb.2015
1945 - 1946	Feb.2014	1960 - 1961	Mär.2015
1947 - 1948	Mär.2014	1961 - 1962	Apr.2015
1948 - 1949	Apr.2014	1962 - 1963	Mai.2015
1949 - 1950	Mai.2014	1963	Jun.2015
1950 - 1951	Jun.2014	1963 - 1964	Jul.2015
1951 - 1952	Jul.2014	1964 - 1965	Aug.2015
1953 - 1954	Aug.2014	1965 - 1966	Sep.2015
1954 - 1955	Sep.2014	1966 - 1967	Okt.2015
1955 - 1956	Okt.2014	1967 - 1968	Nov.2015
1956 - 1957	Nov.2014	1968	Dez.2015
1957 - 1958	Dez.2014		
1958 - 1959	Jän.2015		

## INVITATION MANAGEMENT



OPT IN possible!

40 – 44 years and 70 – 74 years may participate by an „OPT IN“

Screening Invitation in a 2 years interval





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SCIENTIFIC BACKGROUND

HISTORY

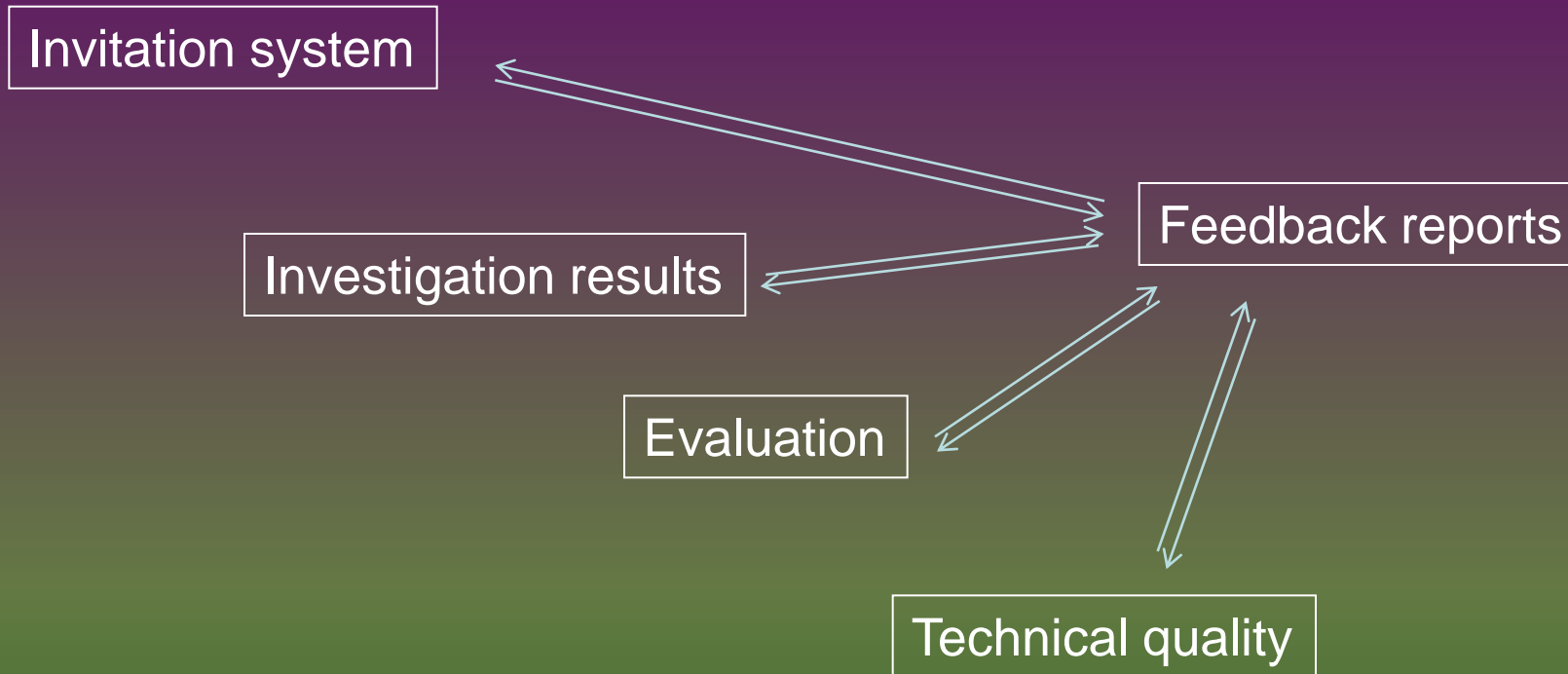
AUSTRIAN SCREENING PROGRAM STRUCTURE

SCREENING INVESTIGATION MANAGEMENT

INVITATION MANAGEMENT

QUALITY ASSURANCE MANAGEMENT





01 / 01 / 2014 AUSTRIA STARTED THE  
COMBINED MAMMOGRAPHY / ULTRASOUND  
BREAST CANCER SCREENING PROGRAM

