



Bundeskriminalamt

# AFIS quality requirements and implementations



## NFIQ II workshop

Gaithersburg, MD



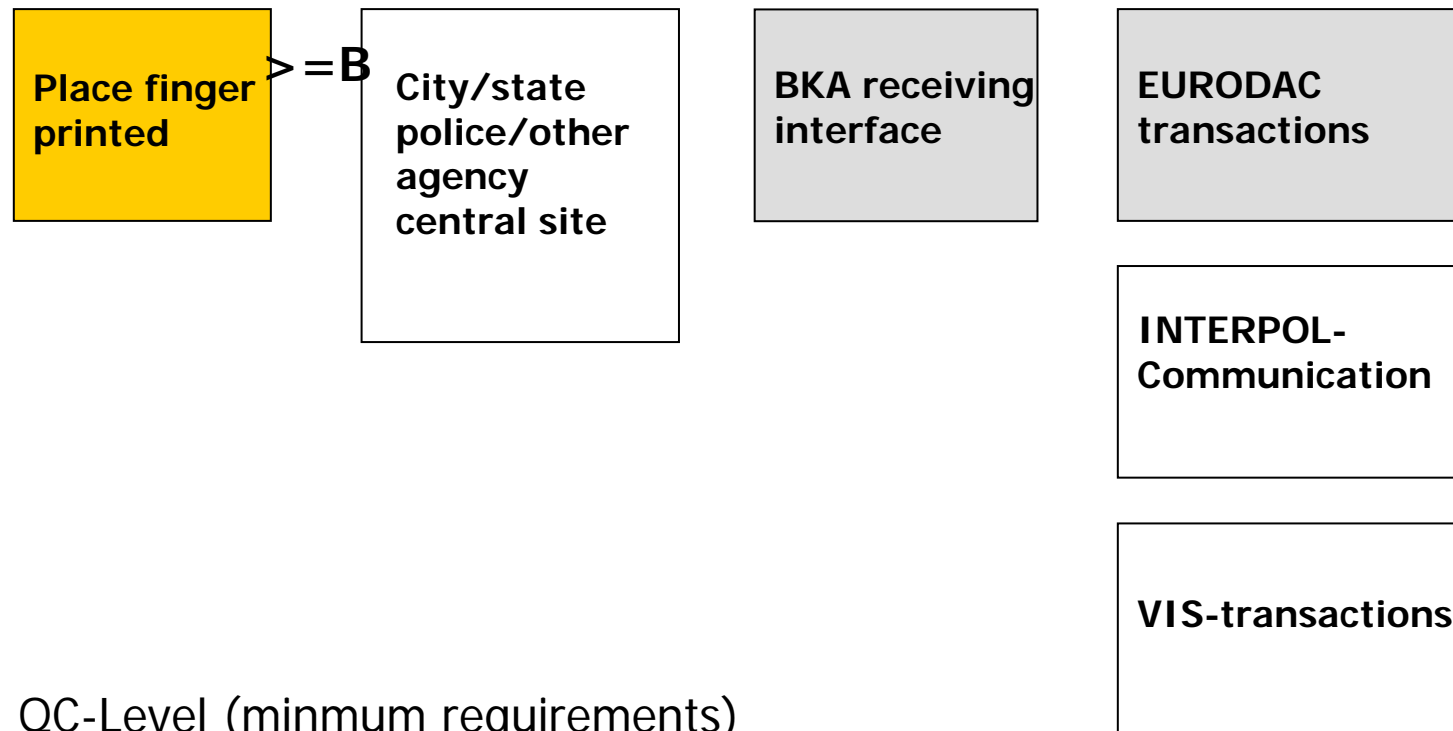
# Examples we deal with



Link to QC  
presentation



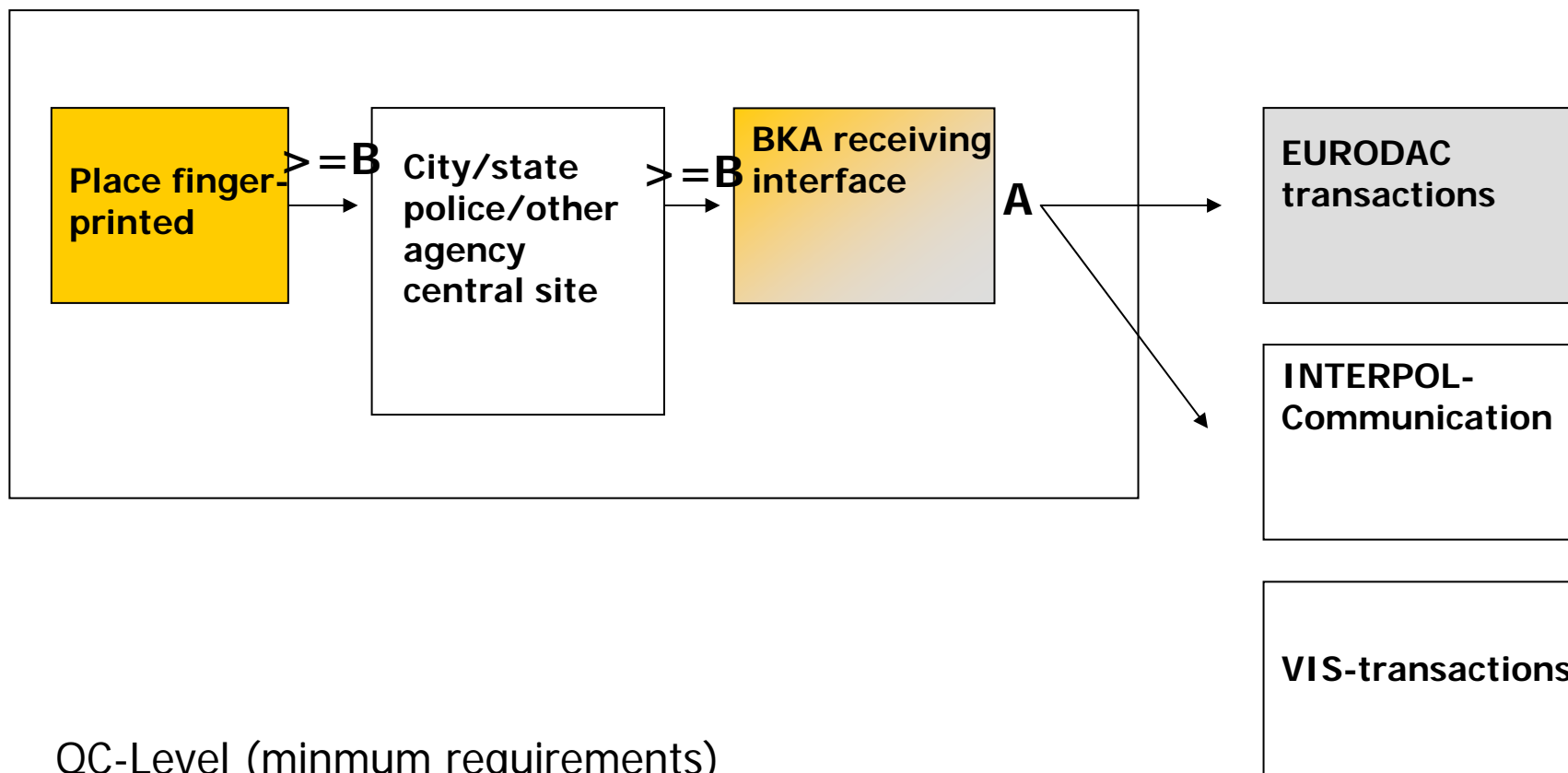
## Current status of QC



QC-Level (minmum requirements)

<b>A</b>	E.g. NFIQ 1 and 2
<b>B</b>	NFIQ I (Various settings)
<b>C</b>	Other algorithm (proprietary)

# QC at any step? Implementation Options



QC-Level (minmum requirements)

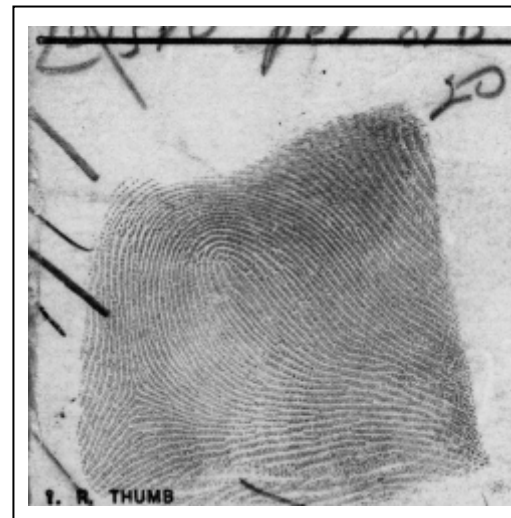
<b>A</b>	E.g. NFIQ II High level (analogue NFIQ I 1 and 2)
<b>B</b>	E.g. NFIQ II Lower level (analogue NFIQ I 1 to 3)
<b>C</b>	Other algorithm



## Fingerprint expert perspective - Quality vs. matchability and completeness



SFin generated image















NIST SD27



## Use cases for NFIQ II

- Automatic selection of the „best“ NIST-files for international correspondance

Speicherdatum	EPK-Nr.	EURODAC-Nr.	D-Nummer	HD-Nummer	PCN	Qualität	NIST-Dateiinhalt
09.12.2006 06:35:23	E[REDACTED]	DE[REDACTED]3507	[REDACTED]	[REDACTED]	[REDACTED]A	gut	 
18.12.2006 09:27:55	E[REDACTED]	DE[REDACTED]0060	[REDACTED]		???	gut	  
07.09.2007 11:37:18	E[REDACTED]	DE[REDACTED]0109	0[REDACTED]		???	gut	  
04.08.2011 11:38:53	E[REDACTED]		[REDACTED]		1[REDACTED]	mittel	   



## Use cases for NFIQ II

- Automatic rejection of poor quality transactions
- Replacement of NFIQ I quality check on capture stations and other implementations



## What is still missing with NFIQ II

- Algorithm for latents (finger and palm)
- Algorithm for palms
- Algorithm to detect what we deal with
- (Algorithm to detect altered fingerprints)