Lisbon Addictions 2019

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Prison and drugs in Europe

First results from the EU funded project NPS-PRISON

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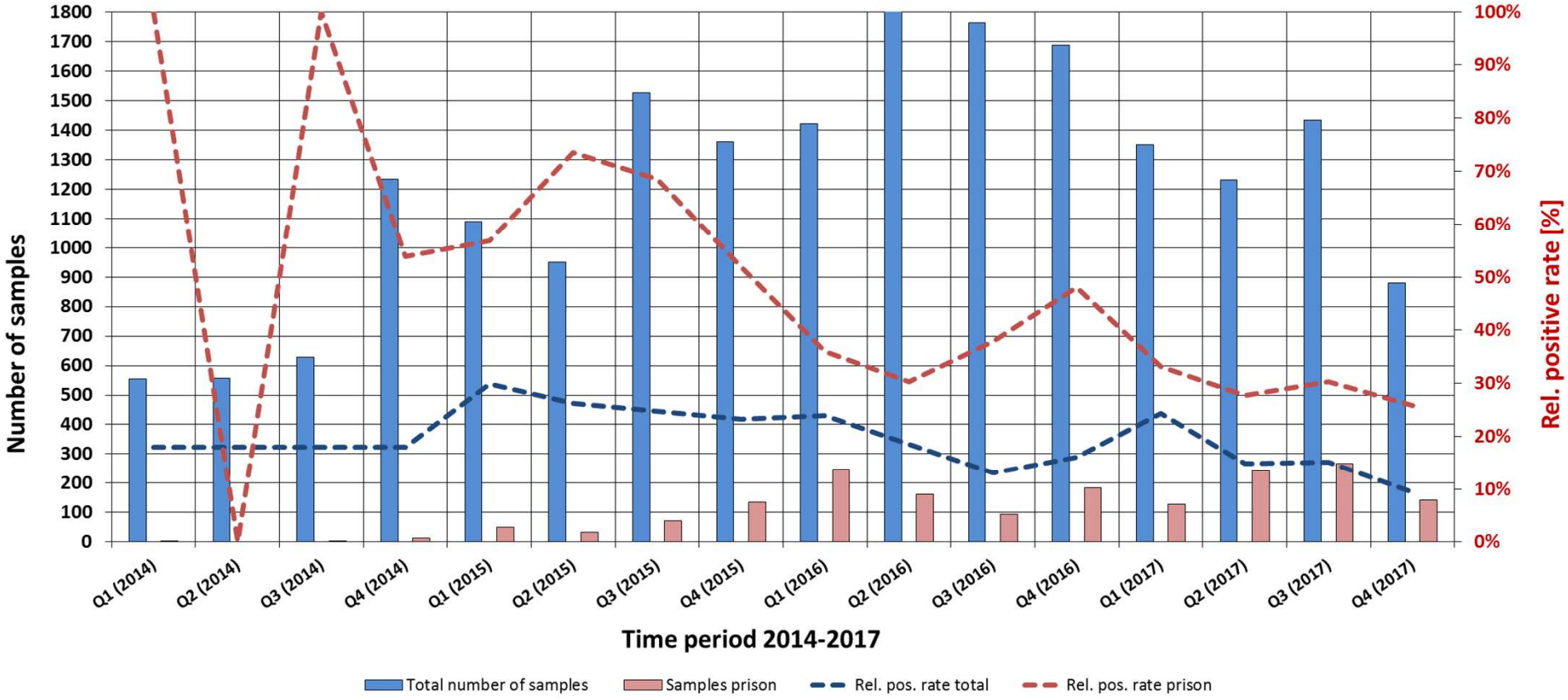
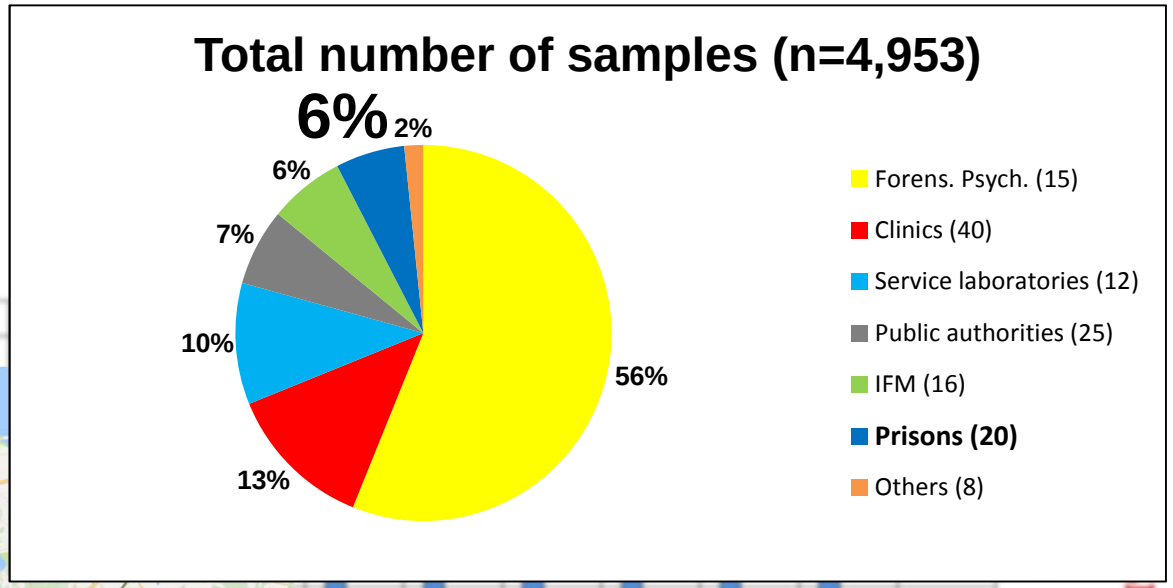
NPS-PRISON is funded by the European Union's Justice Programme — Drugs Policy Initiatives

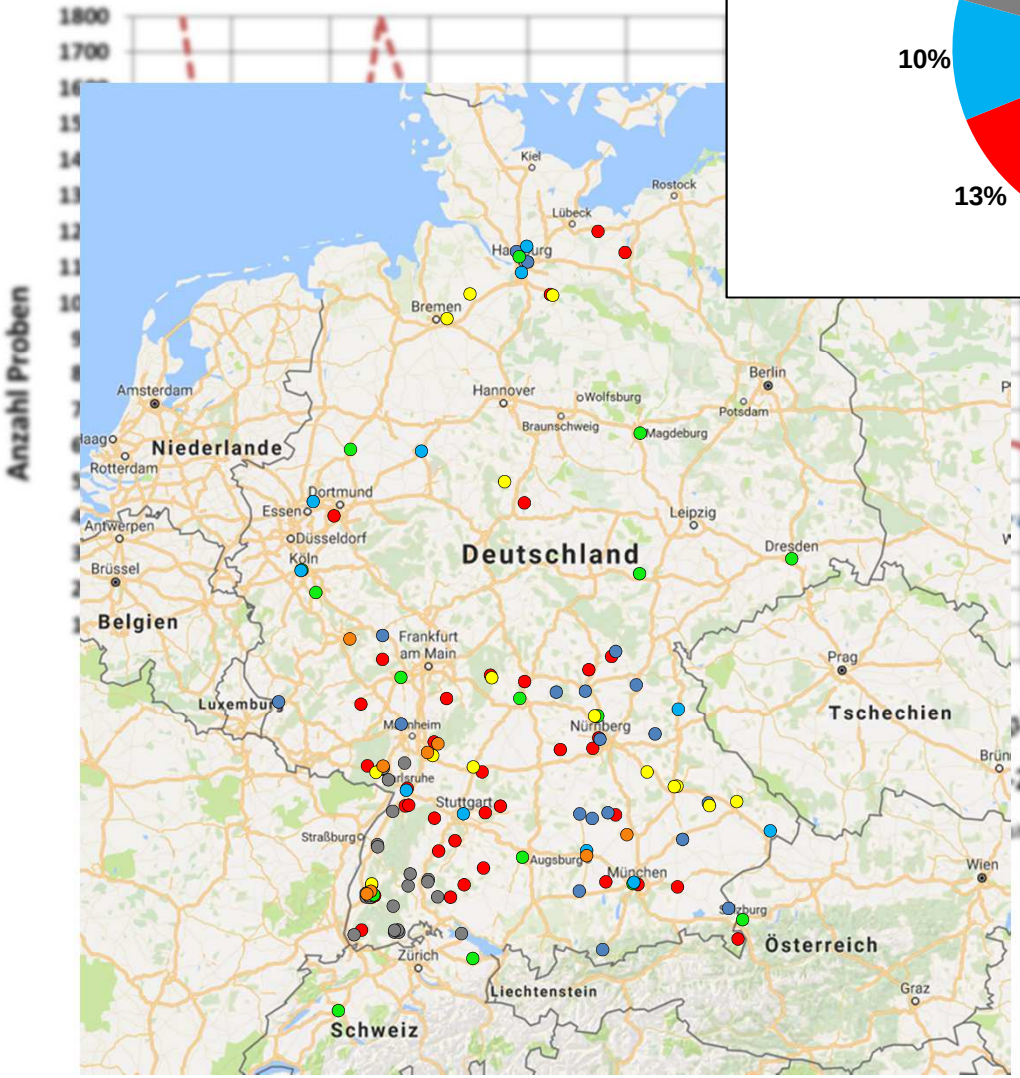
NPS in German prisons: … what we knew before

- Typically, the NPS detected in urine samples of prisoners are synthetic cannabinoids (often more than one)
- Other NPS are a rare exception (however, testing often restricted to SC, periods of detection lower for stimulants and opioids)
- A number of death cases occurred in the last years due to the consumption of synthetic cannabinoids (2016 and 2017)
- No valid epidemiological data on NPS use in German prisons, but results from urine drug screenings from 2014-2018 …

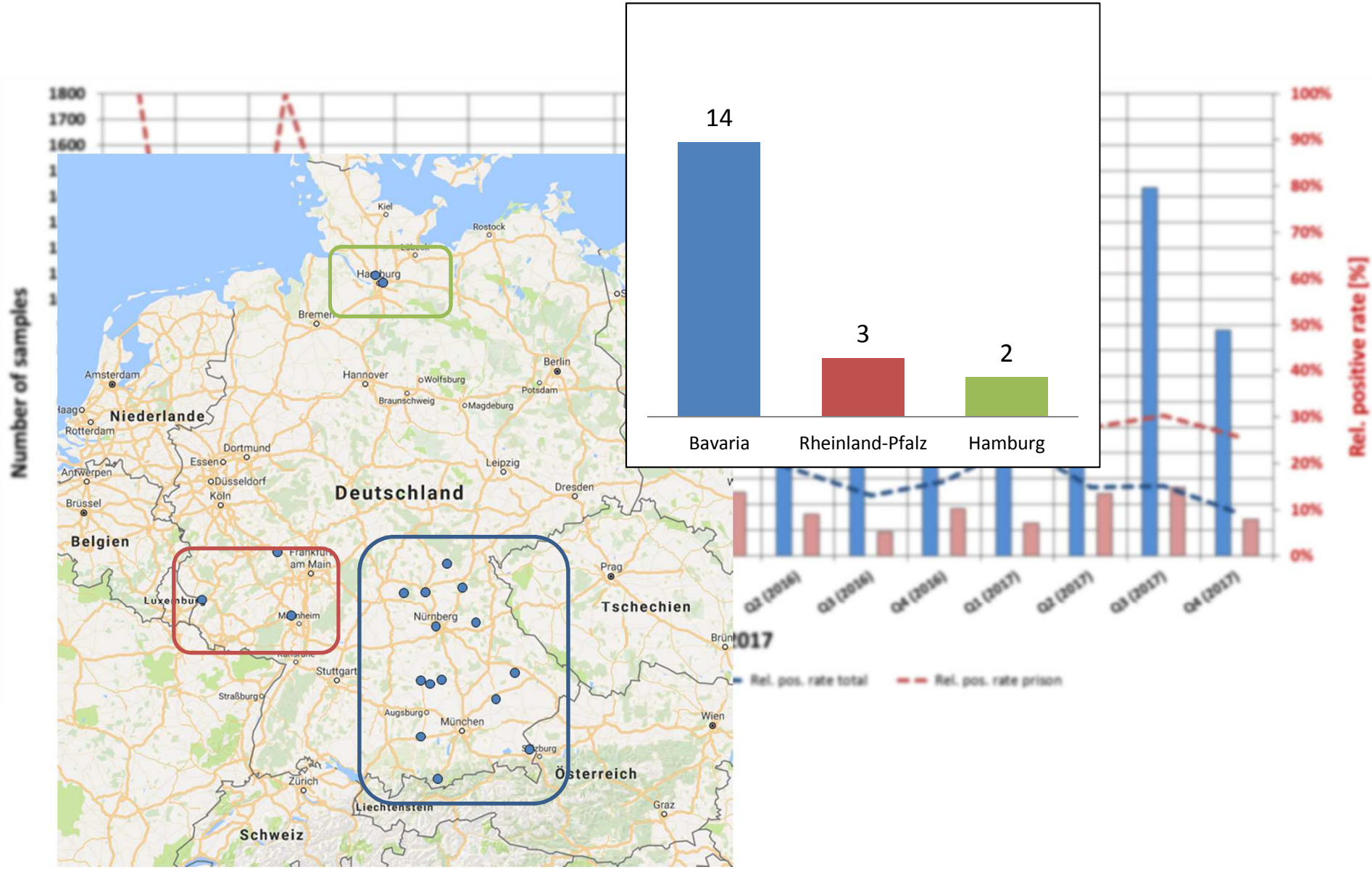
Screening for metabolites of synthetic cannabinoids in urine samples
German prisons 2014-2017

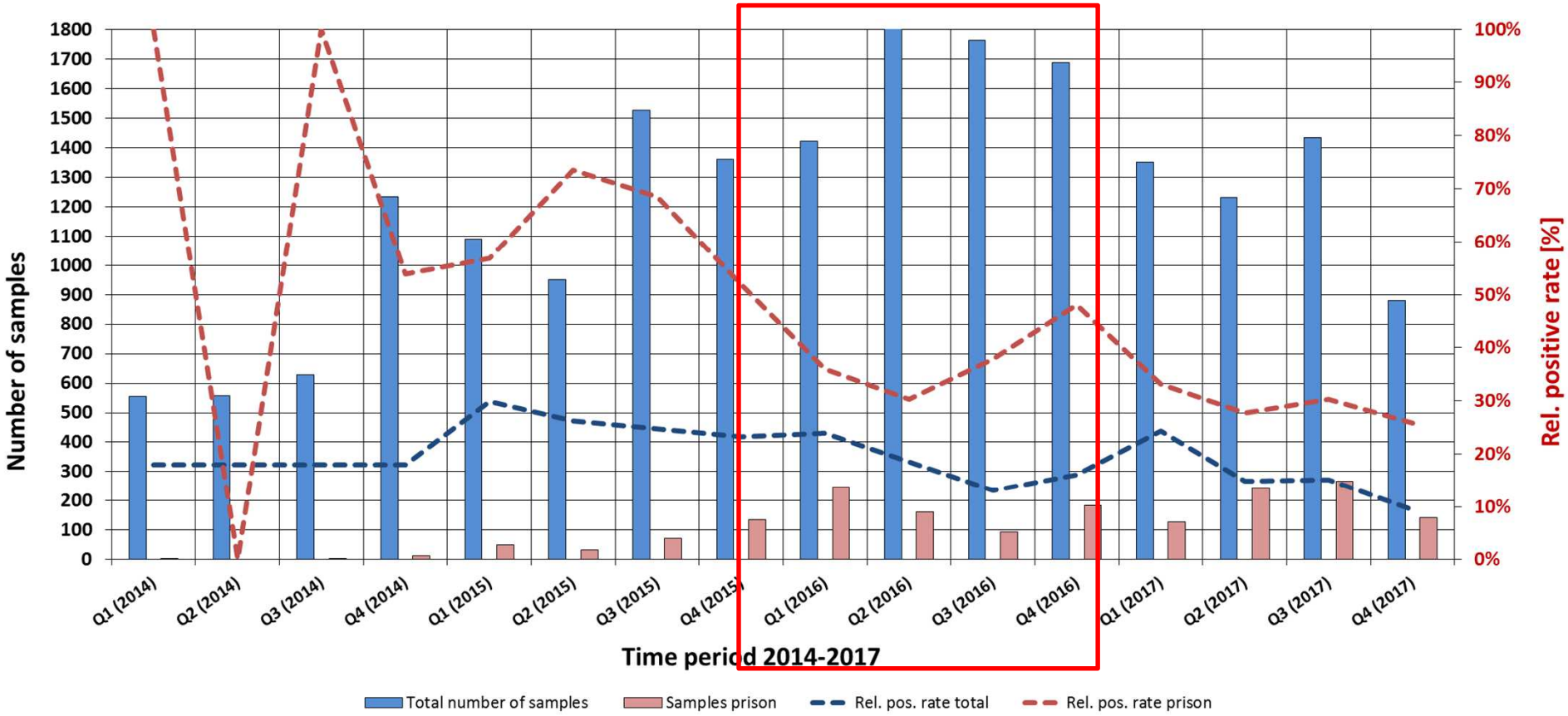


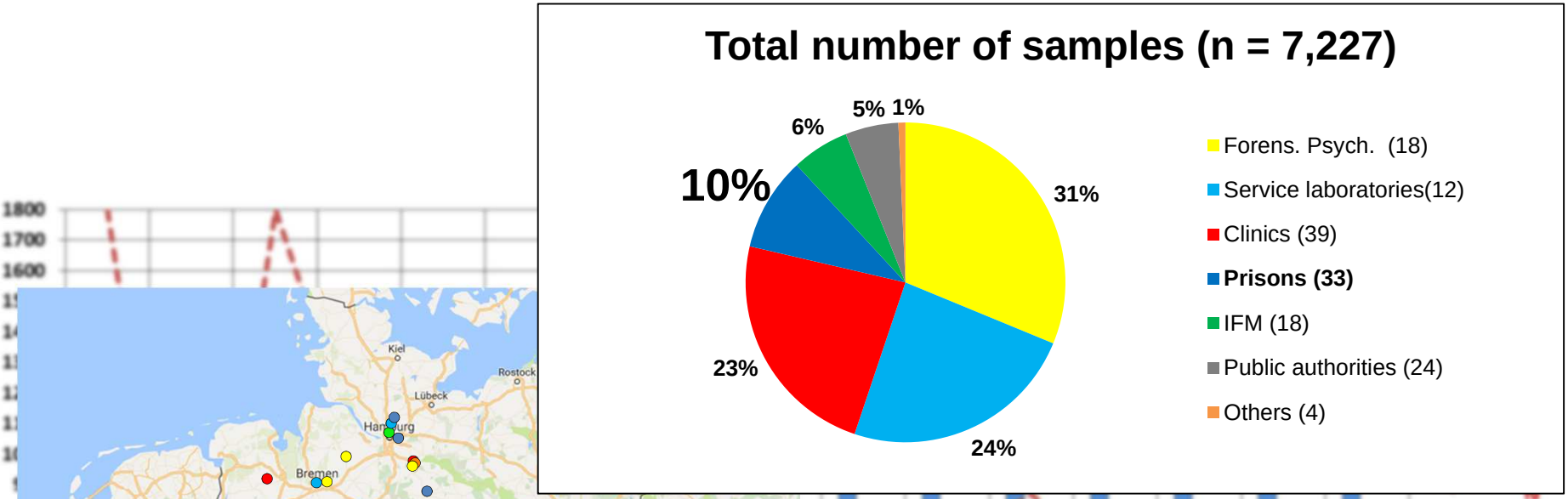


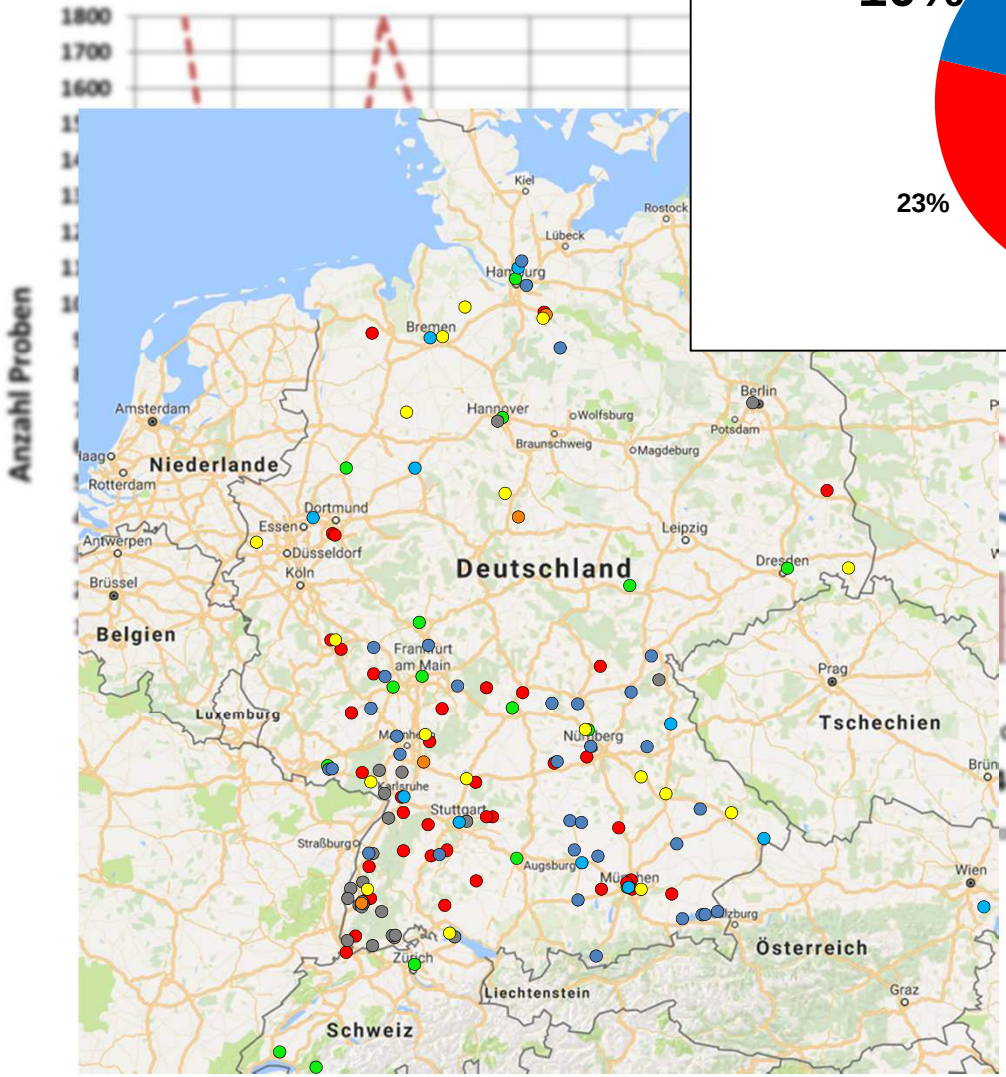


60% positive in 2015 !!!

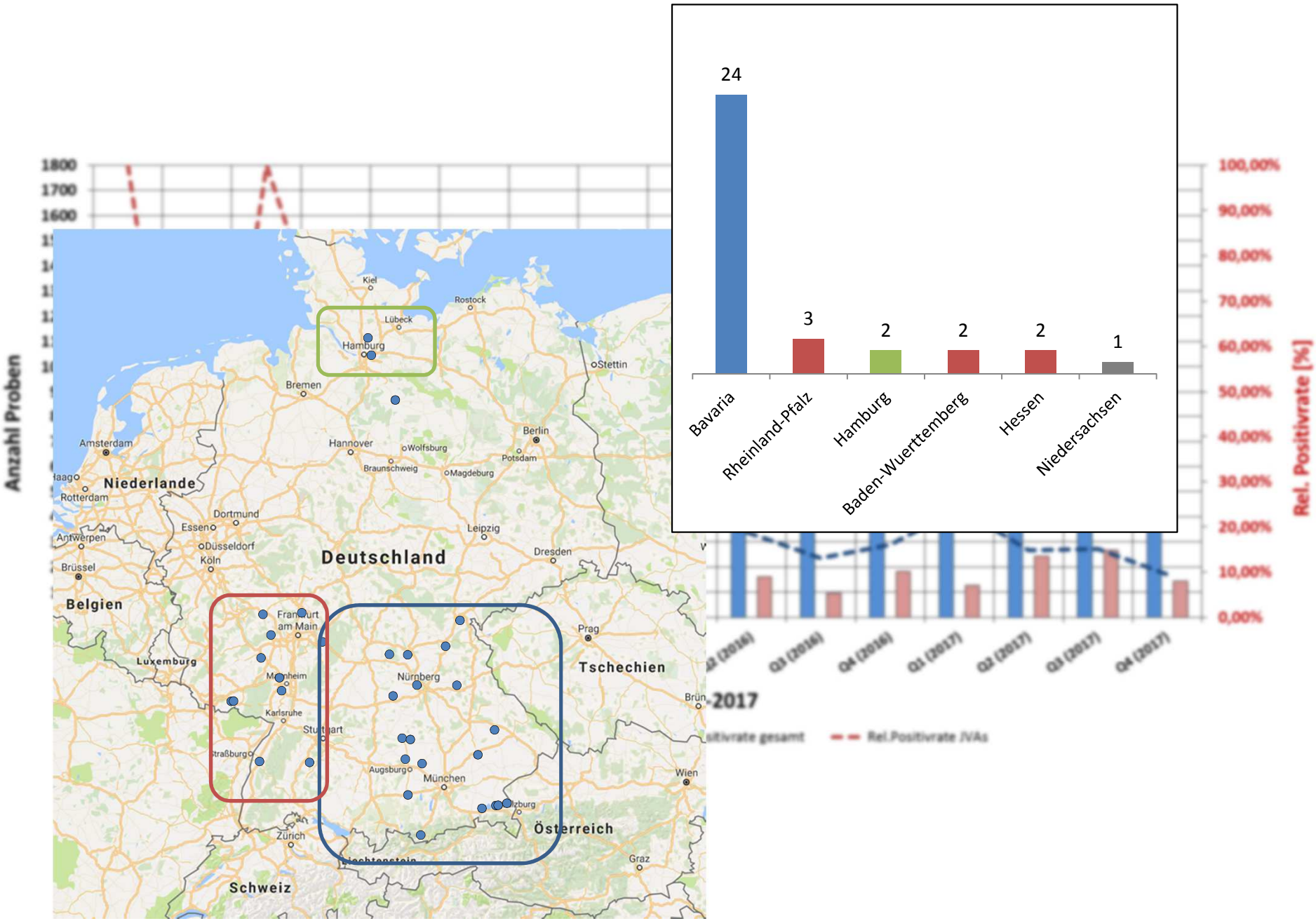

14
3
2
Bavaria
Rheinland-Pfalz
Hamburg
Number of samples
Rel. positive rate [%]
Deutschland
Niederlande
Belgien
Schweiz
Österreich
Tschechien
Hamburg
Bremen
Hannover
Berlin
Amsterdam
Rotterdam
Dortmund
Essen
Düsseldorf
Köln
Antwerpen
Brüssel
Leipzig
Dresden
Prag
Wien
Nürnberg
Stuttgart
München
Augsburg
Straßburg
Zürich
Liechtenstein
Graz
Rel. pos. rate total
Rel. pos. rate prison

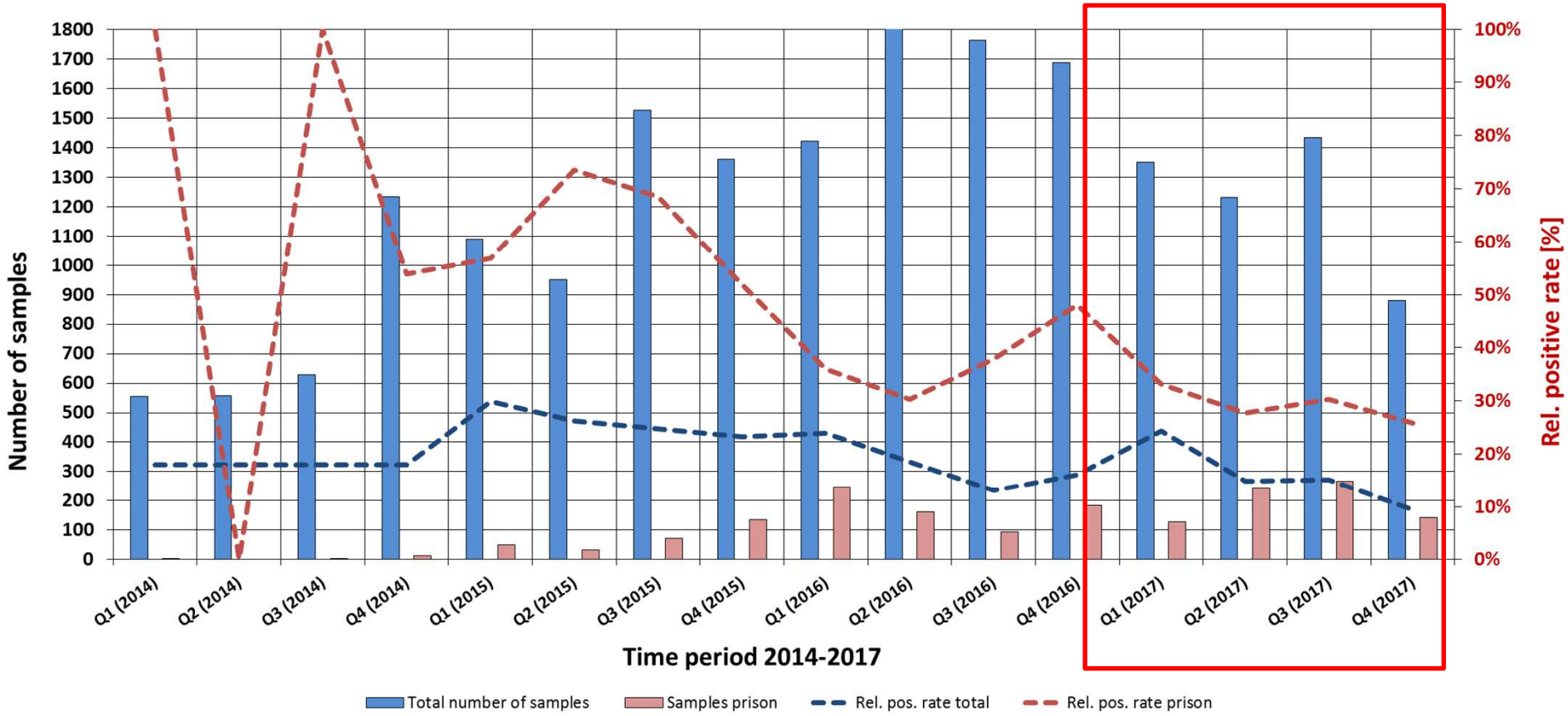

Number of samples
1800
1700
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
400
300
200
100
0
Rel. positive rate [%]
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Q1 (2014)
Q2 (2014)
Q3 (2014)
Q4 (2014)
Q1 (2015)
Q2 (2015)
Q3 (2015)
Q4 (2015)
Q1 (2016)
Q2 (2016)
Q3 (2016)
Q4 (2016)
Q1 (2017)
Q2 (2017)
Q3 (2017)
Q4 (2017)
Time period 2014-2017
Total number of samples
Samples prison
Rel. pos. rate total
Rel. pos. rate prison

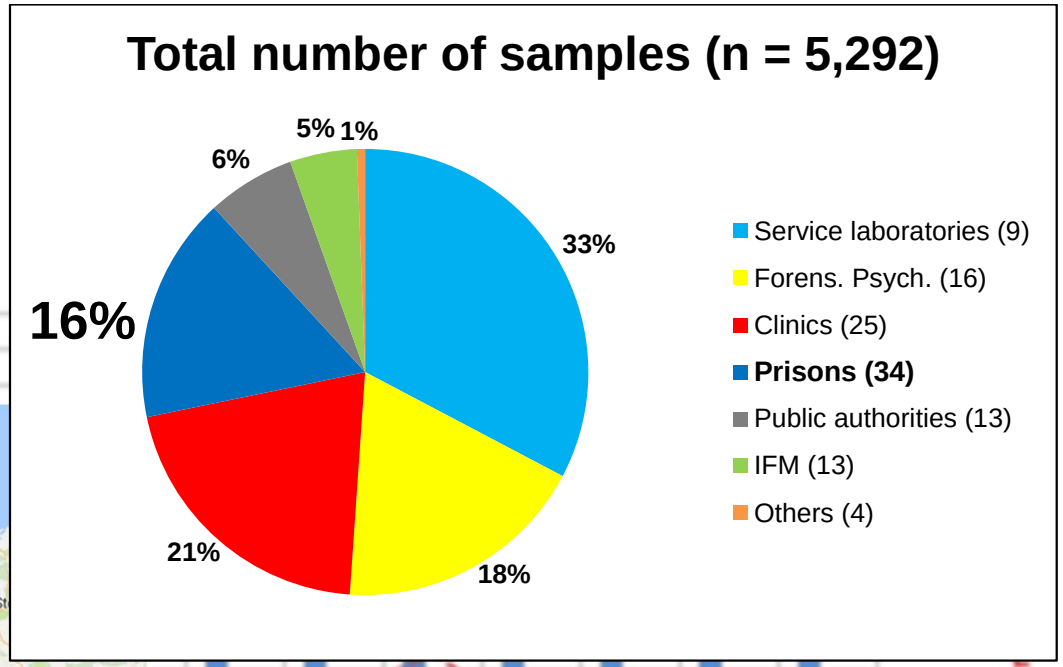


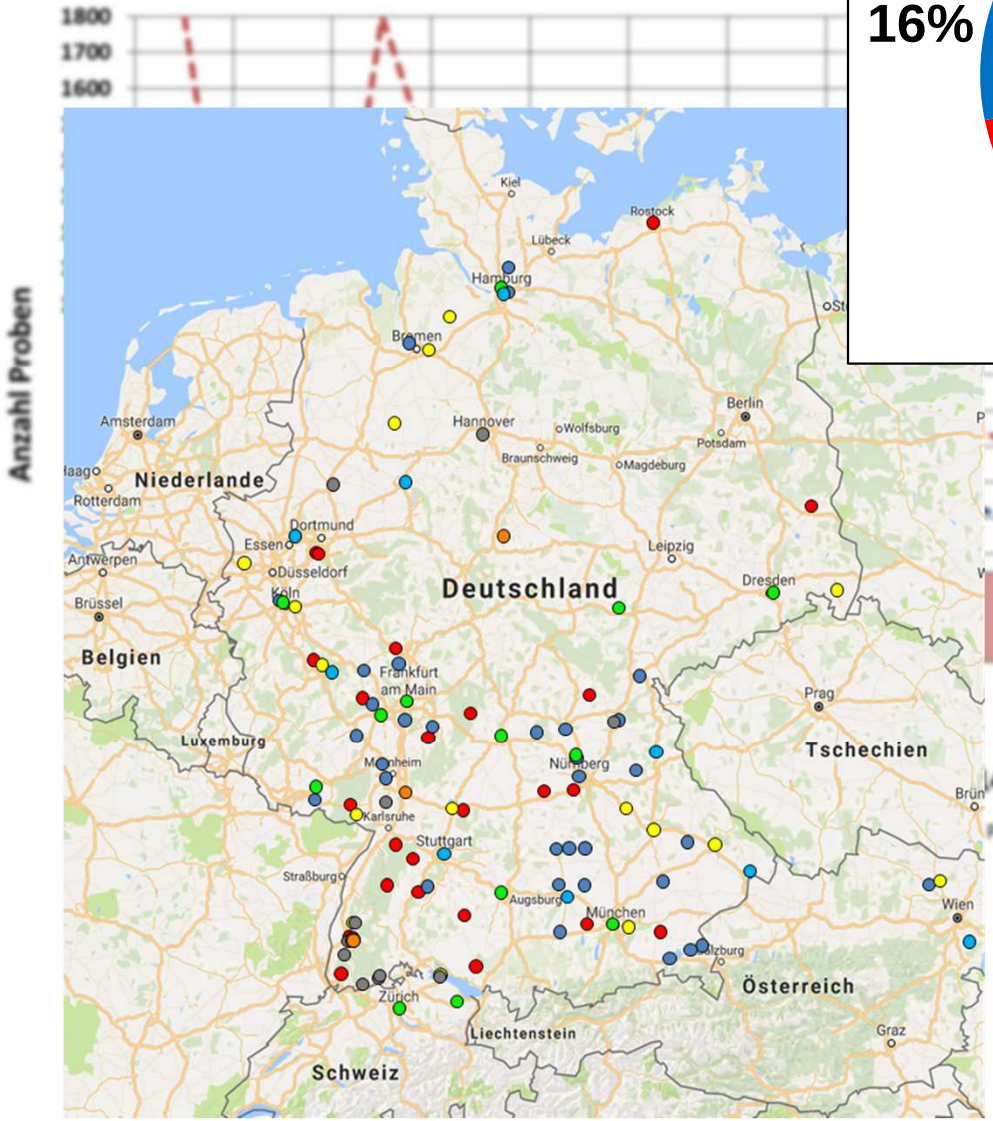


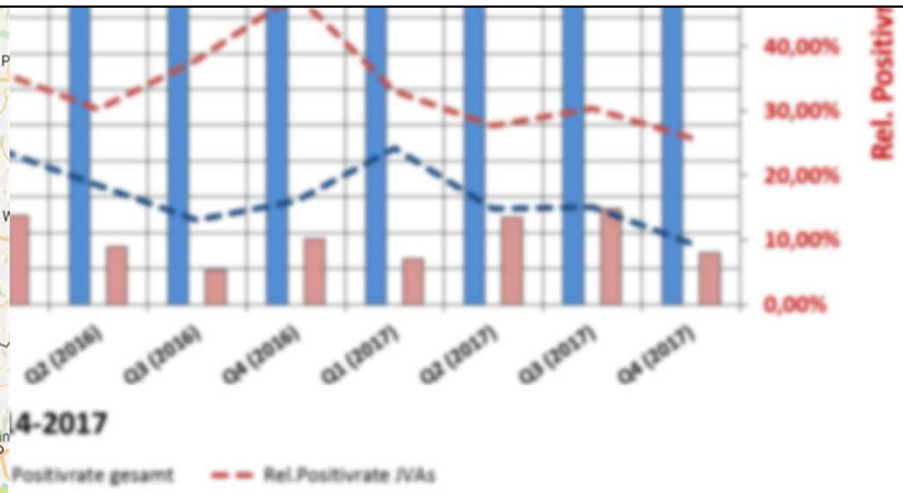
35% positive in 2016


24
3
2
2
2
1
Bavaria
Rheinland-Pfalz
Hamburg
Baden-Wuerttemberg
Hessen
Niedersachsen
Anzahl Proben
Rel. Positivrate [%]
Deutschland
Niederlande
Belgien
Luxemburg
Tschechien
Österreich
Schweiz
Kiel
Rostock
Lübeck
Hamburg
Bremen
Stettin
Amsterdam
Hannover
Wolfsburg
Berlin
Potsdam
Braunschweig
Magdeburg
Rotterdam
Dortmund
Essen
Antwerpen
Düsseldorf
Köln
Leipzig
Dresden
Brüssel
Frankfurt am Main
Prag
Nürnberg
Karlsruhe
Stuttgart
Augsburg
München
Wien
Zürich
Graz
2017

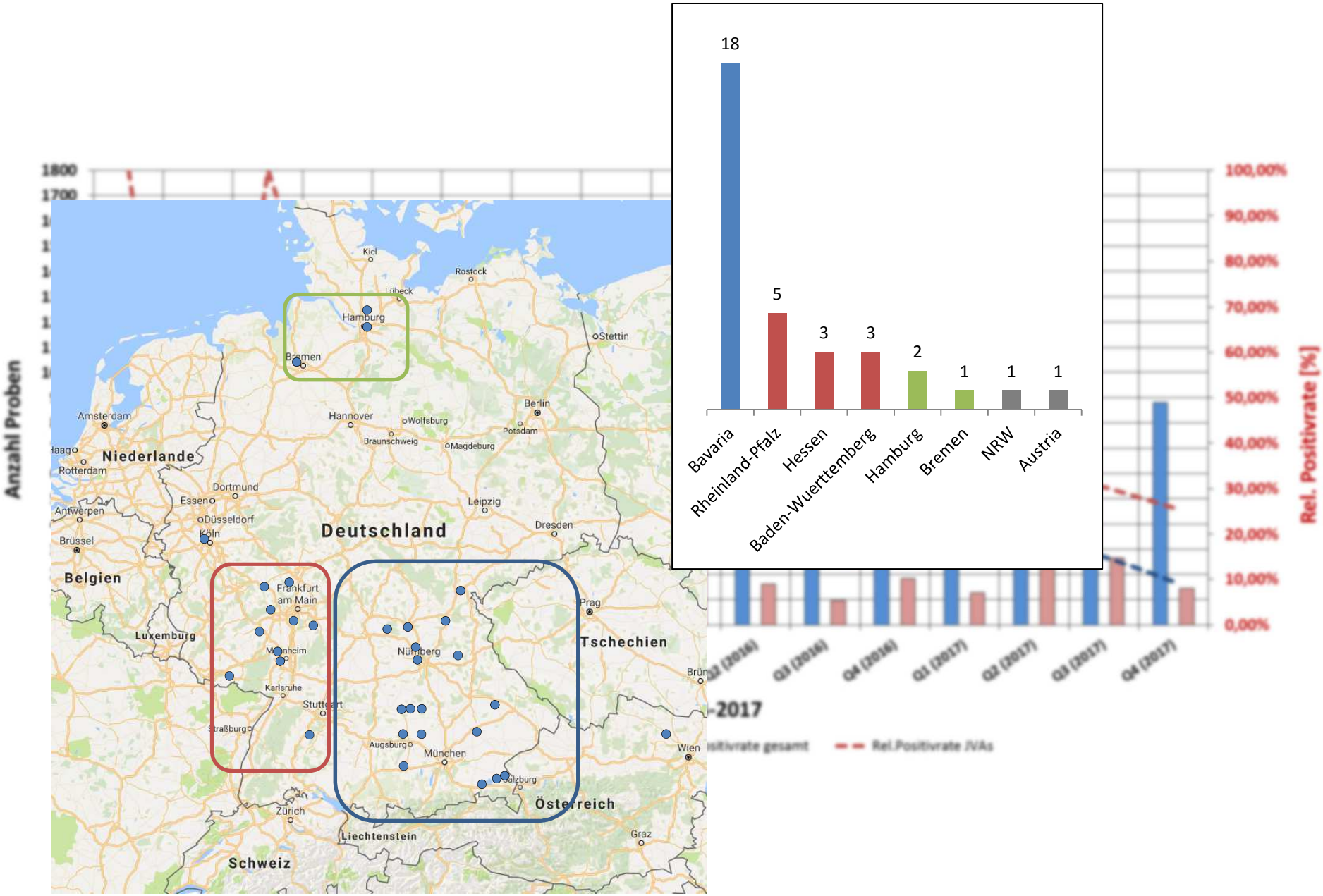

Number of samples
1800
1700
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
400
300
200
100
0
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Rel. positive rate [%]
Q1 (2014)
Q2 (2014)
Q3 (2014)
Q4 (2014)
Q1 (2015)
Q2 (2015)
Q3 (2015)
Q4 (2015)
Q1 (2016)
Q2 (2016)
Q3 (2016)
Q4 (2016)
Q1 (2017)
Q2 (2017)
Q3 (2017)
Q4 (2017)
Time period 2014-2017
Total number of samples
Samples prison
Rel. pos. rate total
Rel. pos. rate prison







25% positive in 2017



Anzahl Proben
Rel. Positivrate [%]
1800
1700
100,00%
90,00%
80,00%
70,00%
60,00%
50,00%
40,00%
30,00%
20,00%
10,00%
0,00%
Q3 (2016)
Q4 (2016)
Q1 (2017)
Q2 (2017)
Q3 (2017)
Q4 (2017)
-2017
Rel.Positivrate JVAs
Kiel
Rostock
Lübeck
Hamburg
Bremen
Stettin
Berlin
Potsdam
Hannover
Wolfsburg
Braunschweig
Magdeburg
Amsterdam
Niederlande
Rotterdam
Dortmund
Essen
Düsseldorf
Köln
Antwerpen
Brüssel
Belgien
Leipzig
Dresden
Deutschland
Frankfurt am Main
Luxemburg
Mannheim
Karlsruhe
Stuttgart
Straßburg
Nürnberg
Augsburg
München
Salzburg
Prag
Tschechien
Wien
Österreich
Zürich
Liechtenstein
Graz
Schweiz
18
5
3
3
2
1
1
1
Bavaria
Rheinland-Pfalz
Hessen
Baden-Wuerttemberg
Hamburg
Bremen
NRW
Austria

Data of 2018

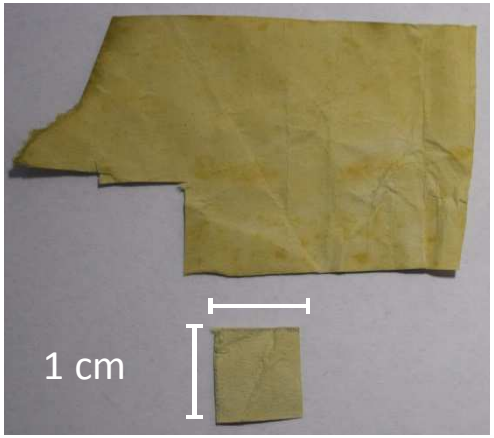
Year	Number of samples	positive rate
2015	292	60%
2016	635	35%
2017	1.070	25%
2018	**807**	**35%**

Positive rates in forensic psychiatric hospitals:

10-20% between 2015 and 2018

Monitoring – cannabinoid laced paper

	AB-FUBINACA	
Minimum	31 mg/g	0.28 mg/cm^2
Maximum	53 mg/g	0.48 mg/cm^2
Mean	42 mg/g	0.38 mg/cm^2
Median	42 mg/g	0.38 mg/cm^2
SD	4.5 mg/g	0.04 mg/cm^2



Substance	K_i CB_1 [1] (nM)	GTPγS EC50 [1] (nM)
AB-FUBINACA	0.9	23.2

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Dose vaporised:

- Light: 0.25 – 0.5 mg
- Common: 0.5 – 1.5 mg
- Strong: 1.5 – 3 mg

A4 paper: 625 cm^2

- [1] Buchler et al., Patent US 2011/0028447 A1

NPS in German prisons

- Maximum number of urine samples from German prisons in 2017
- Relatively high positivity rate in prisons (prevalence?)
- Greater problem awareness in south Germany (in particular Bavaria)
- Specific (prevention) measures missing for most prisons, but a few modified their ‘drug policy’

EU project **NPS – PRISON**
10/2018 – 09/2020

Project Consortium

1. Coordinator: UNIVERSITY MEDICAL CENTER FREIBURG, Institute of Forensic Medicine (UKLFR)
2. GOETHE-UNIVERSITY FRANKFURT AM MAIN, Centre for Drug Research (GUF)
3. BASIS - BERATUNG, ARBEIT, JUGEND U. KULTUR EV (Basis eV)
4. FRANKFURT UNIVERSITY OF APPLIED SCIENCES FRANKFURT AM MAIN (UAS)
5. INSTITUTE OF PSYCHIATRY AND NEUROLOGY, WARSAW, POLAND (IPiN)
6. EÖTVÖS-LORÁND-UNIVERSITY BUDAPEST, HUNGARY (ELTE)

EU project **NPS – PRISON**

10/2018 – 09/2020

1. Systematic evaluation of NPS use in German, Polish and Hungarian prisons by
- urine analysis (including online monitoring and method update)
- Interviewing prison staff
- ‘focus groups’ (prisoners)

2. Development of specific strategies to reduce NPS use and related harms (including trainings for prison staff and prisoners)

3. Evaluation of the prevention measures by repeating evaluation of NPS use by a second round of urine analysis

4. European conference in Frankfurt, Germany, for dissemination of a proposal for a ‘best practice’ concept regarding NPS-specific prevention work in prisons

EU project **NPS – PRISON**

10/2018 – 09/2020

No.	Federal State	accepted	declined	decision pending
1	Baden-Württemberg	X		
2	Rheinland-Pfalz	X		
3	Saarland	X		
4	Sachsen-Anhalt	X		
5	Thüringen	X		
6	Hessen		X	
7	Sachsen		X	
8	Schleswig-Holstein		X	
9	Bayern			X
10	Berlin			X
11	Brandenburg			X
12	Bremen			X
13	Hamburg			X
14	Mecklenburg-Vorpommern			X
15	Niedersachsen			X
16	Nordrhein-Westfalen			X
	Total	5	3	8

Poland and Hungary: difficulties regarding urine sampling …

EU project **NPS – PRISON**
10/2018 – 09/2020

JVA Wittlich (Rheinland-Pfalz):

Phase 1 (03/2019; n = 103): 16 x 5F-MDMB-PICA (1 x additional CUMYL-PEGACLONE); **positive rate 16%**

7 others (1 diluted, 3 benzodiazepines, 2 cannabis, 1 amphetamine); **7%**

Phase 2 (07/2019; n = 101): 11 x 4F-MDMB-BINACA; **positive rate 11%**

6 others (1 diluted, 2 benzodiazepines, 1 cannabis, 1 amphetamine, 1 cocaine/opiates); **6%**

JVA Diez (Rheinland-Pfalz):

Phase 1 (03/2019; n = 101): 16 positives (10 x 4F-MDMB-BINACA, 1 x AB-FUB/FUB-AMB, 9 x 5F-MDMB-PICA); **positive rate 16%**

10 others (1 diluted, 4 cannabis, 2 tilidine, 2 buprenorphine, 1 methylphenidate); **10%**

EU project **NPS – PRISON**
10/2018 – 09/2020

Interviews in Wittlich and Diez (Rheinland-Pfalz)

Preliminary results

- Availability of synthetic cannabinoids is perceived as very high (prisoners and staff)
- Boredom is one of the main motivations for (NPS) drug use, but also drug addiction, private problems or curiosity were mentioned
- Given that NPS use is not easily detectable in urine samples, the fear of sanctions due to drug use was another driving factor
- Potential negative health consequences were stated as a reason not to use NPS
- The majority of interviewed prisoners would not use NPS outside of the prison
- Prisoners and staff wish to have more information on NPS and feel that an extended dialogue on the issue would be helpful