

# Innovations for safer healthcare in the Dutch-German cross-border region

**INTERREG VA project „health-i-care:  
innovations for safer healthcare“  
MedTech Twente | Business Event  
2nd of November 2023**

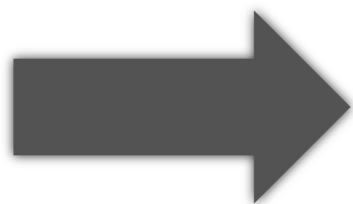


Dr. Corinna Glasner  
c.glasner@umcg.nl

Cross-border coordinator for education and  
research

University Medical Center Groningen (UMCG)  
Groningen, The Netherlands

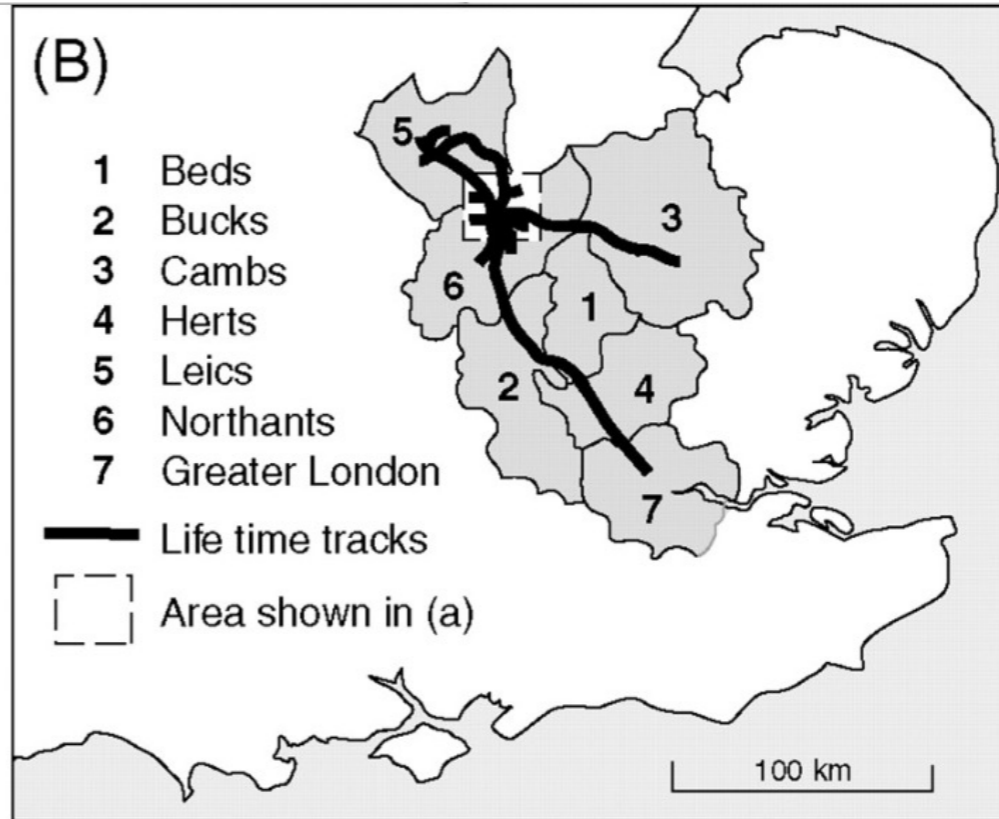
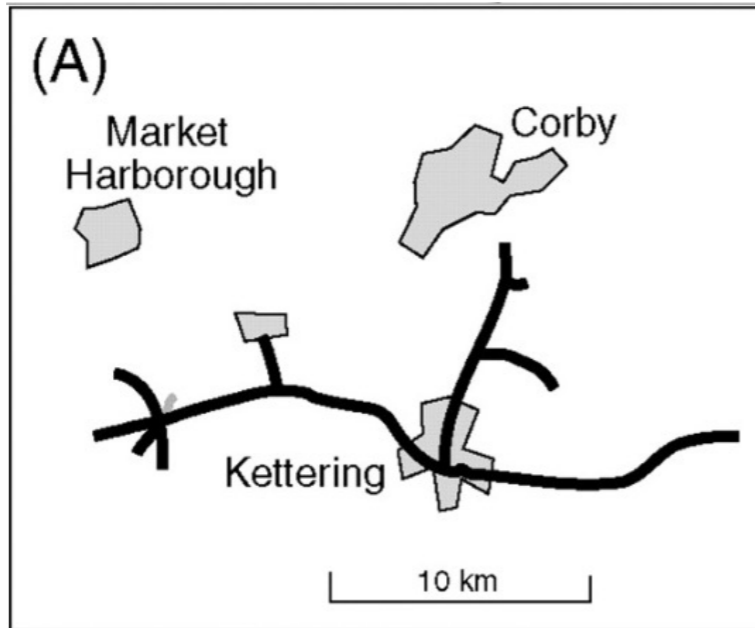
# Welcome to my brain 😊



**Choice of words? Generalised and documented sind wirklich nicht "passend" hier bij deze onderwerp.**

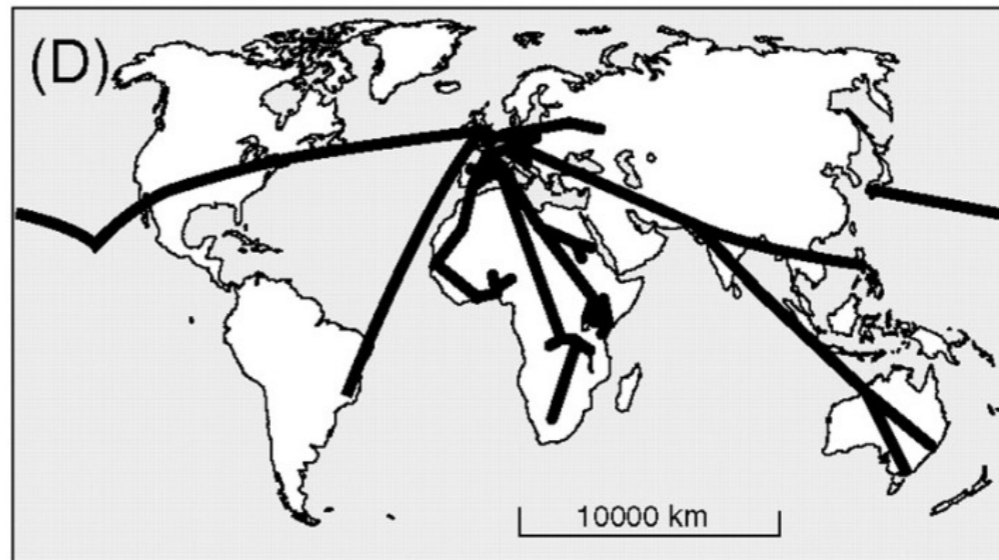
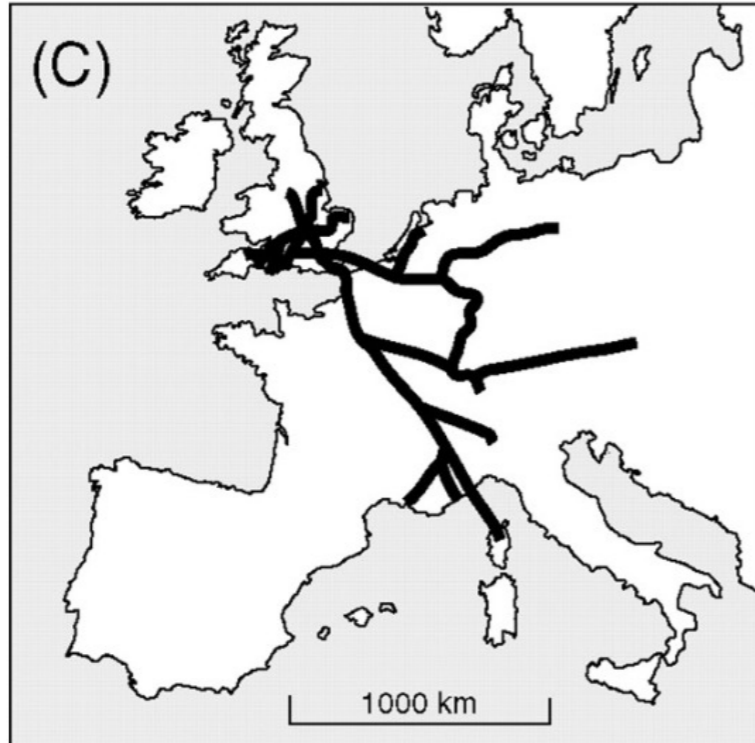


great-grandmother



grandmother

mother

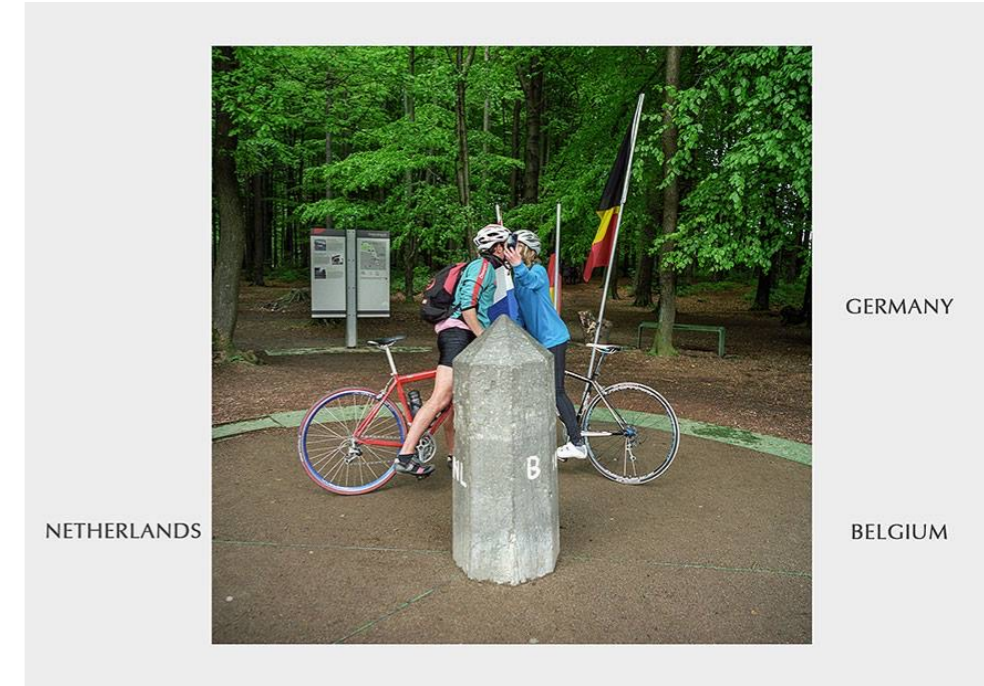


daughter

Cliff and Haggett Br Med Bull (2004) 69 (1): 87-99



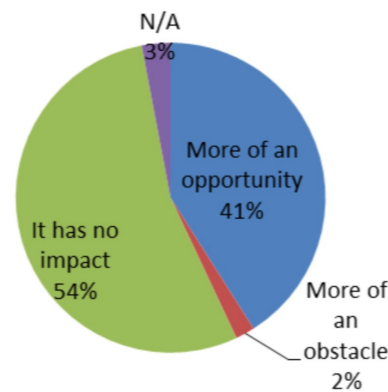
# Dutch-German cross-border region



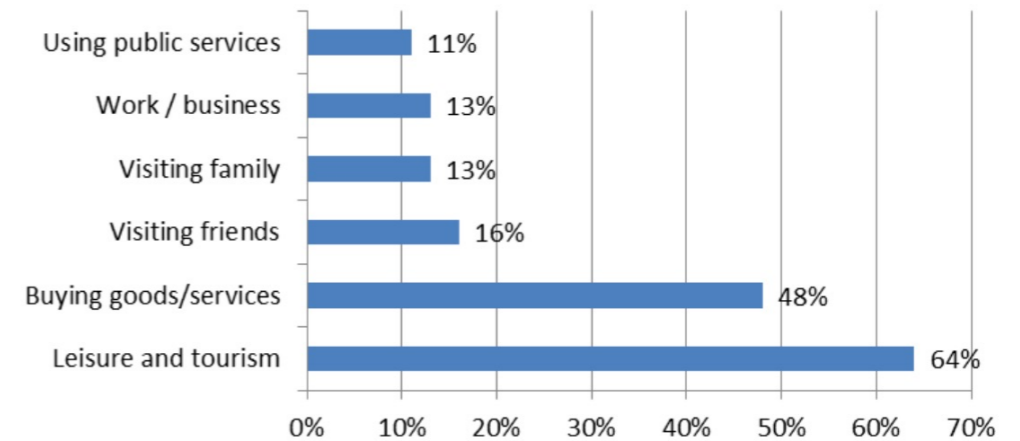
## 2/ Mobility

**74% of respondents in programme Germany-Netherlands have traveled to the other side of the border.** This is one of the highest levels of cross-border mobility among all EU border regions, and significantly higher than the EU average of 53%.

### Living near the border is...



### Reasons for traveling





# Germany „vs.“ The Netherlands





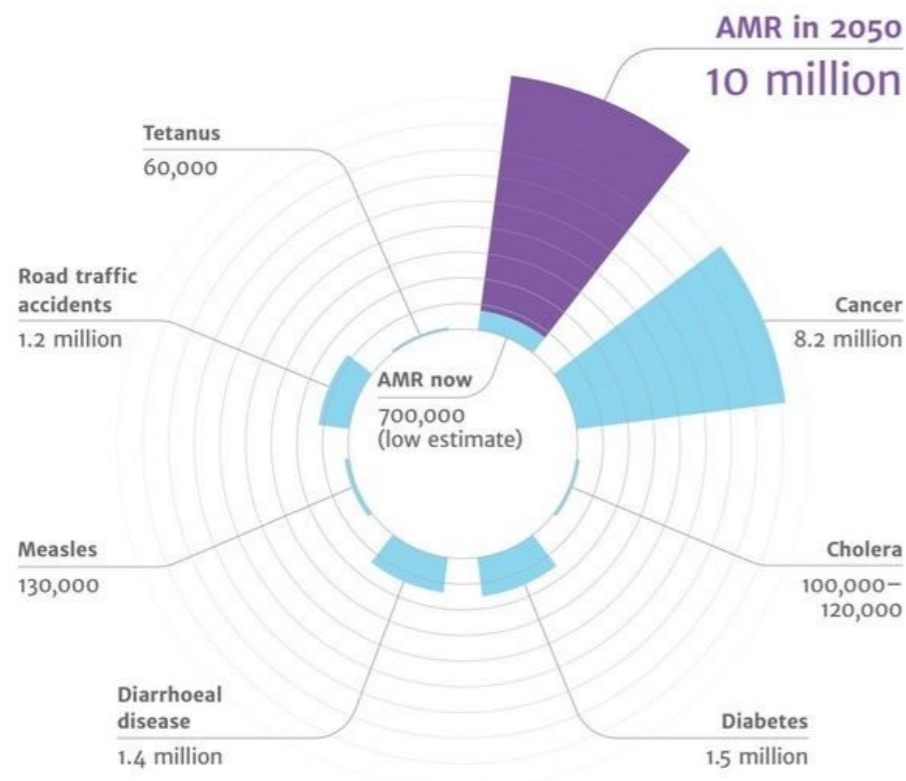
## WHO publishes list of bacteria for which new antibiotics are urgently needed

News release

27 FEBRUARY 2017 | GENEVA - WHO today published its first ever list of antibiotic-resistant "priority pathogens" – a catalogue of 12 families of bacteria that pose the greatest threat to human health.



## DEATHS ATTRIBUTABLE TO AMR EVERY YEAR



### WHO priority pathogens list for R&D of new antibiotics

#### Priority 1: CRITICAL

1. *Acinetobacter baumannii*, carbapenem-resistant
2. *Pseudomonas aeruginosa*, carbapenem-resistant
3. *Enterobacteriaceae*, carbapenem-resistant, ESBL-producing

#### Priority 2: HIGH

1. *Enterococcus faecium*, vancomycin-resistant
2. *Staphylococcus aureus*, methicillin-resistant, vancomycin-intermediate and resistant
3. *Helicobacter pylori*, clarithromycin-resistant
4. *Campylobacter* spp., fluoroquinolone-resistant
5. *Salmonellae*, fluoroquinolone-resistant
6. *Neisseria gonorrhoeae*, cephalosporin-resistant, fluoroquinolone-resistant

#### Priority 3: MEDIUM

1. *Streptococcus pneumoniae*, penicillin-non-susceptible
2. *Haemophilus influenzae*, ampicillin-resistant
3. *Shigella* spp., fluoroquinolone-resistant



# Tackling differences together

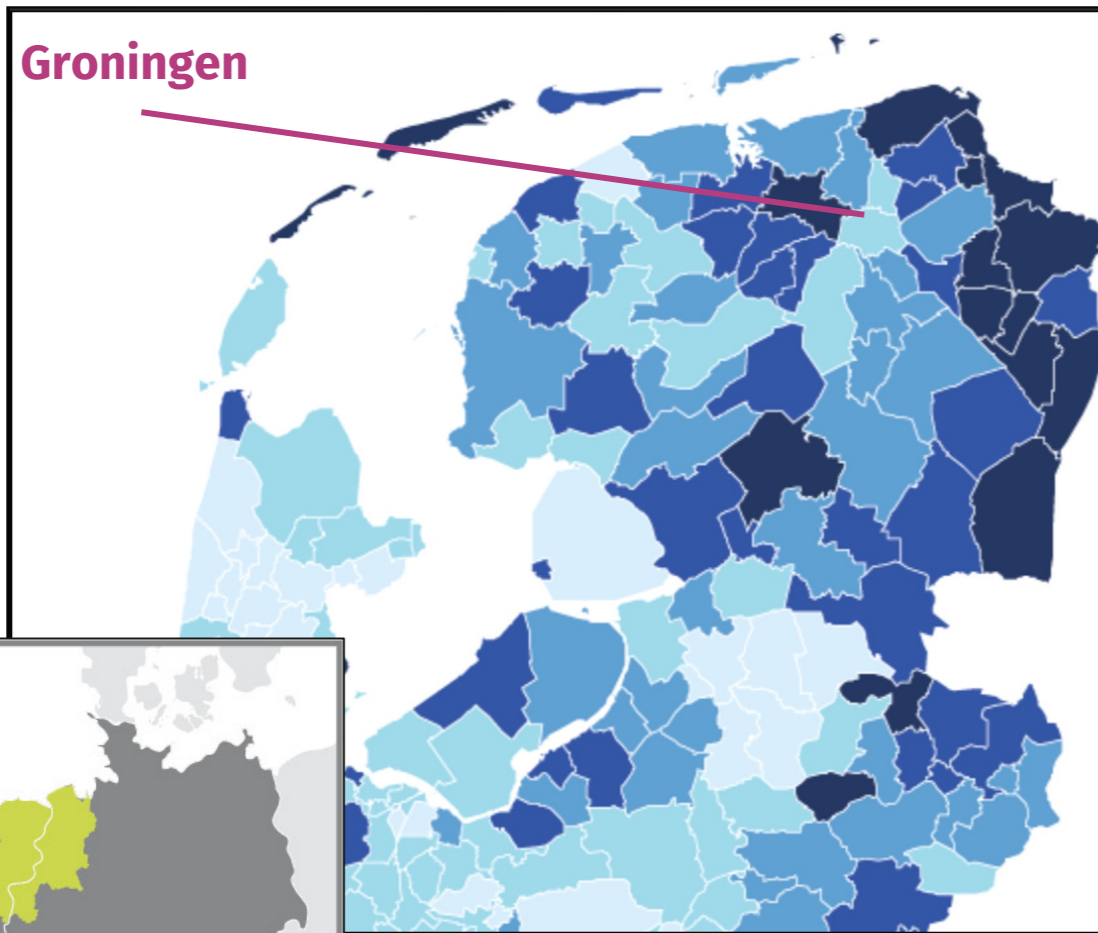
valents (FTE) per



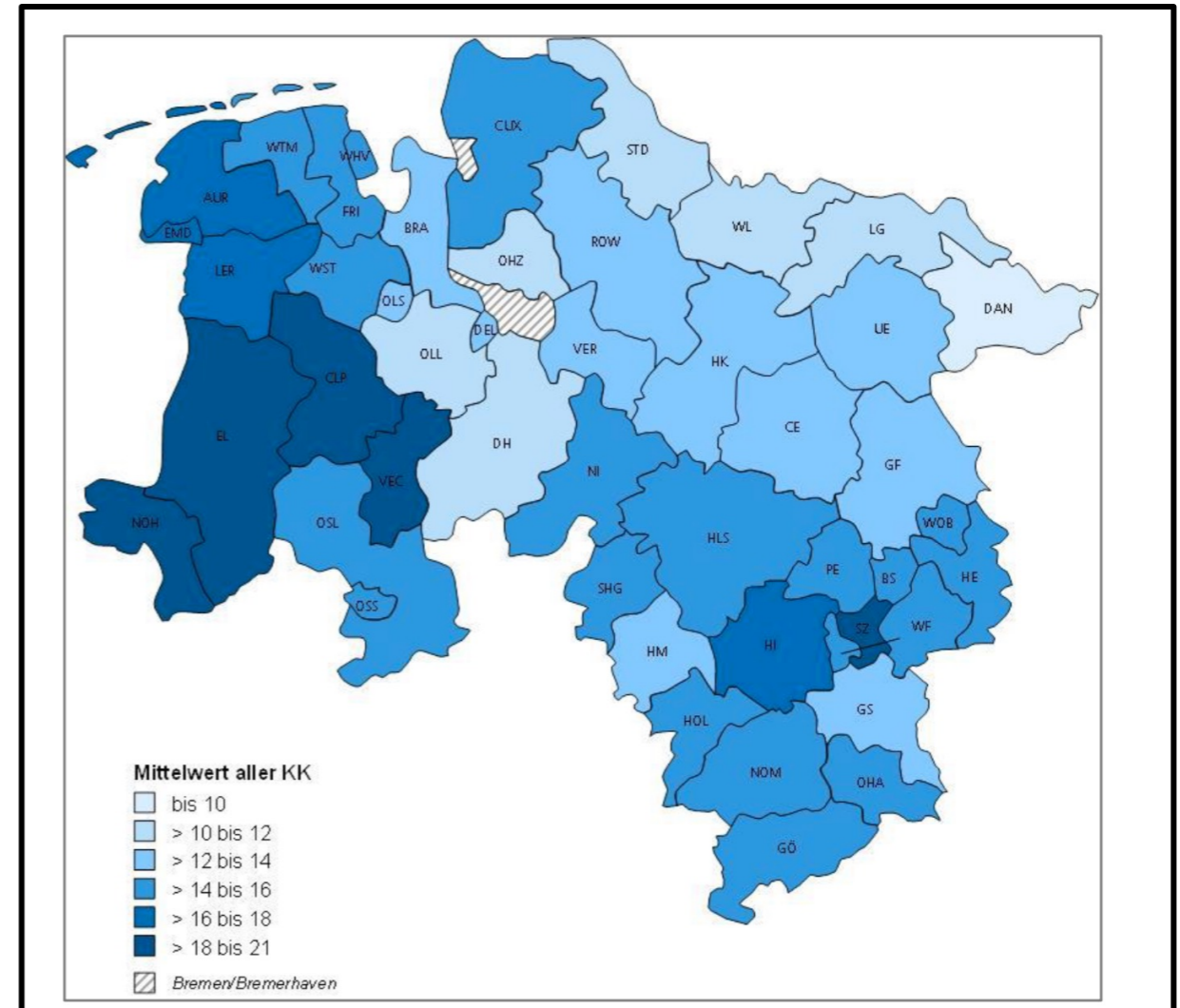
**TOGETHER 😊**



# Antibiotic use in the Netherlands and Niedersachsen: the region



**The Dutch-German Border**

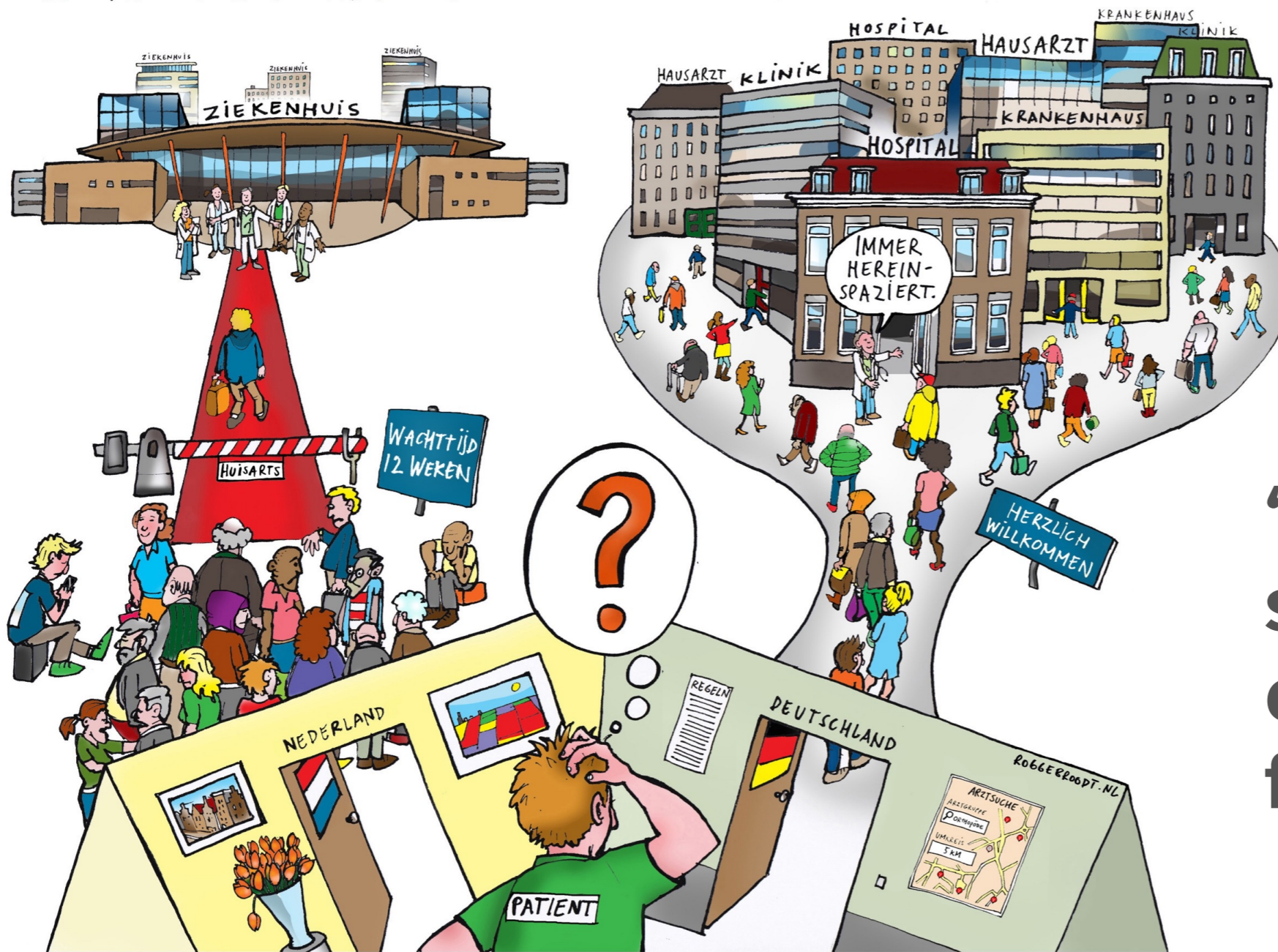


→ Thinking regionally much more important than nationally for local antibiotic resistance and infection prevention



ZO DICHTBIJ EN TOCH ZO ANDERS:  
EEN KANS OM VAN ELKAAR TE LEREN

SO NAH UND DOCH SO ANDERS:  
EINE CHANCE VONEINANDER ZU LERNEN



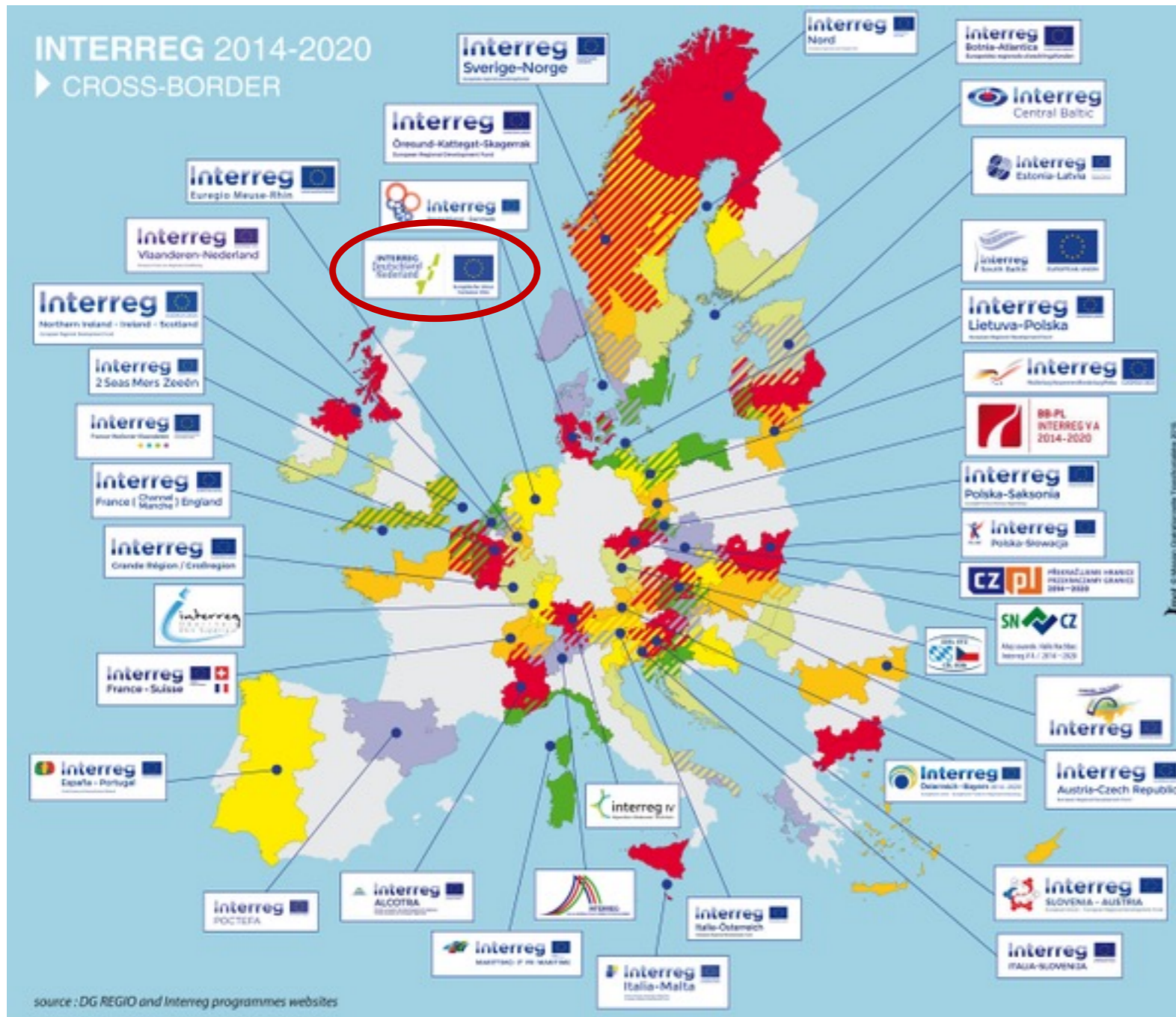
“So close and still so different: a chance to learn from each other”



www.deutschland-nederland.eu

MET PROJECT WORDT IN HET KADER VAN HET INTERREG-PROGRAMMA DEUTSCHLAND - NEDERLAND UITGEVOERD EN DOOR DE EUROPESE UNIE EN DE VOLGENDE INSTELLINGEN FINANCIËEL ONDERSTEUND.  
DAS EURHEALTH-1HEALTH PROJECT WIRD IM RAHMEN DES INTERREG PROGRAMMS DEUTSCHLAND-NEDERLAND DURCHFÜHRT UND DURCH DIE EUROPÄISCHE UNION SOWIE DIE FOLGENDEN INSTITUTIONEN FINANZIELL UNTERSTÜTZT.



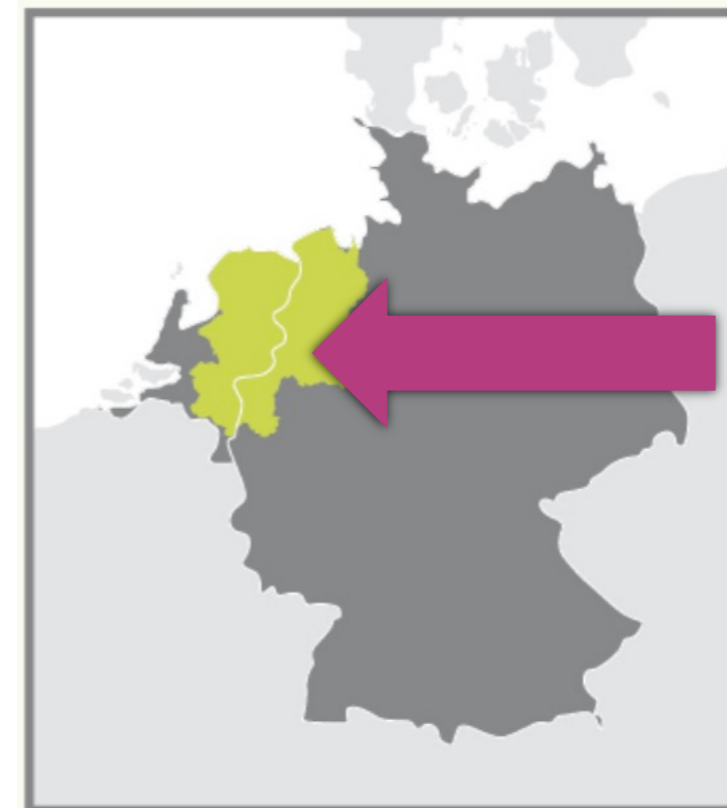


Goal of INTERREG:

to ensure that national borders are not an obstacle to a balanced development and integration of the European area!



# The Dutch-German Cross-Border Region



**BORDER**

# Cross-border AMR projects

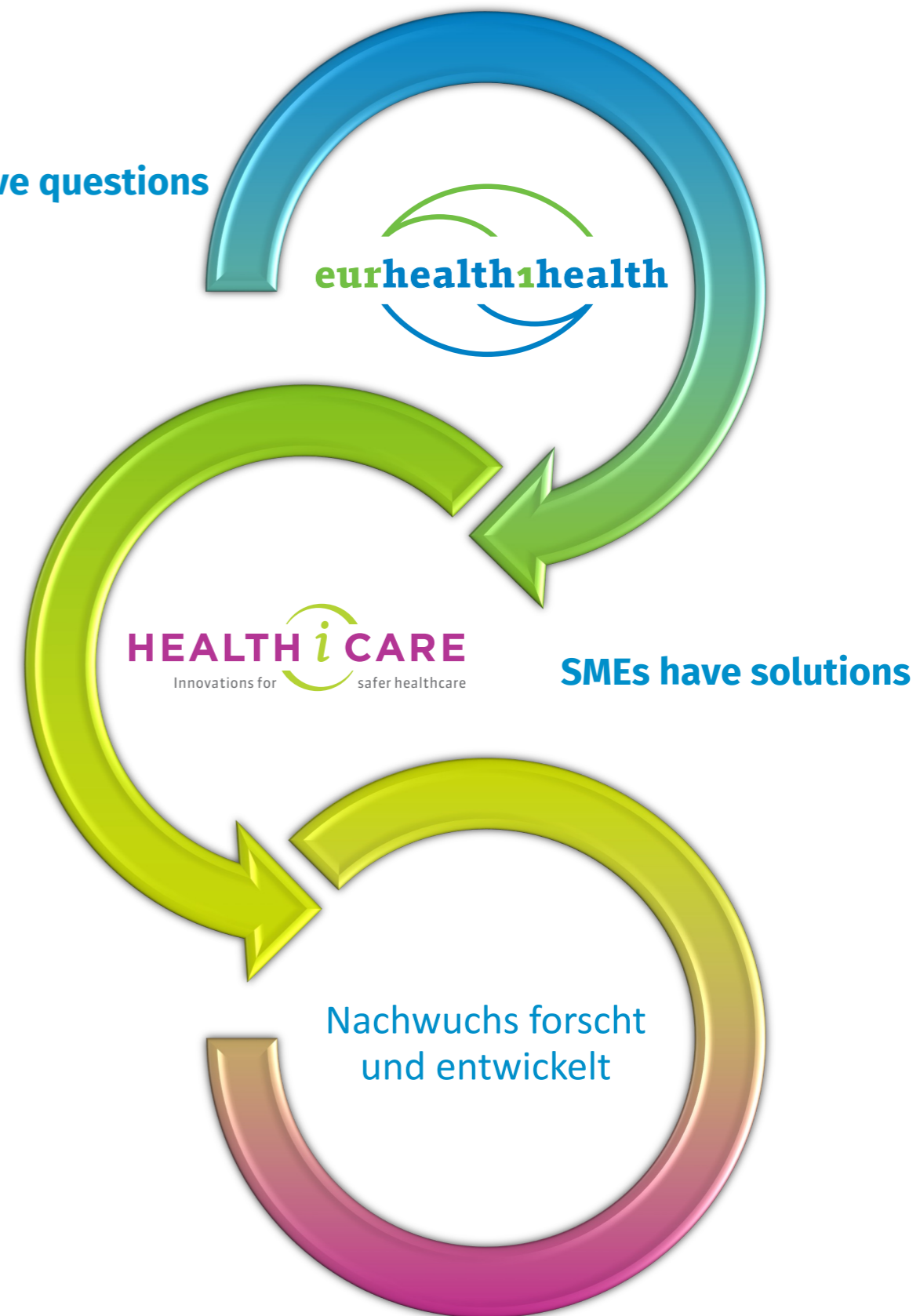
## ±50 Partner:

1. Science (± 6 universities)
2. Business (± 30 SMEs)
3. Health (± 14 hospitals & labs)

## Goals:

- Education
- Interventions (Surveillance, Screenings)
- Competence
- Research
- Innovations

Experts have questions



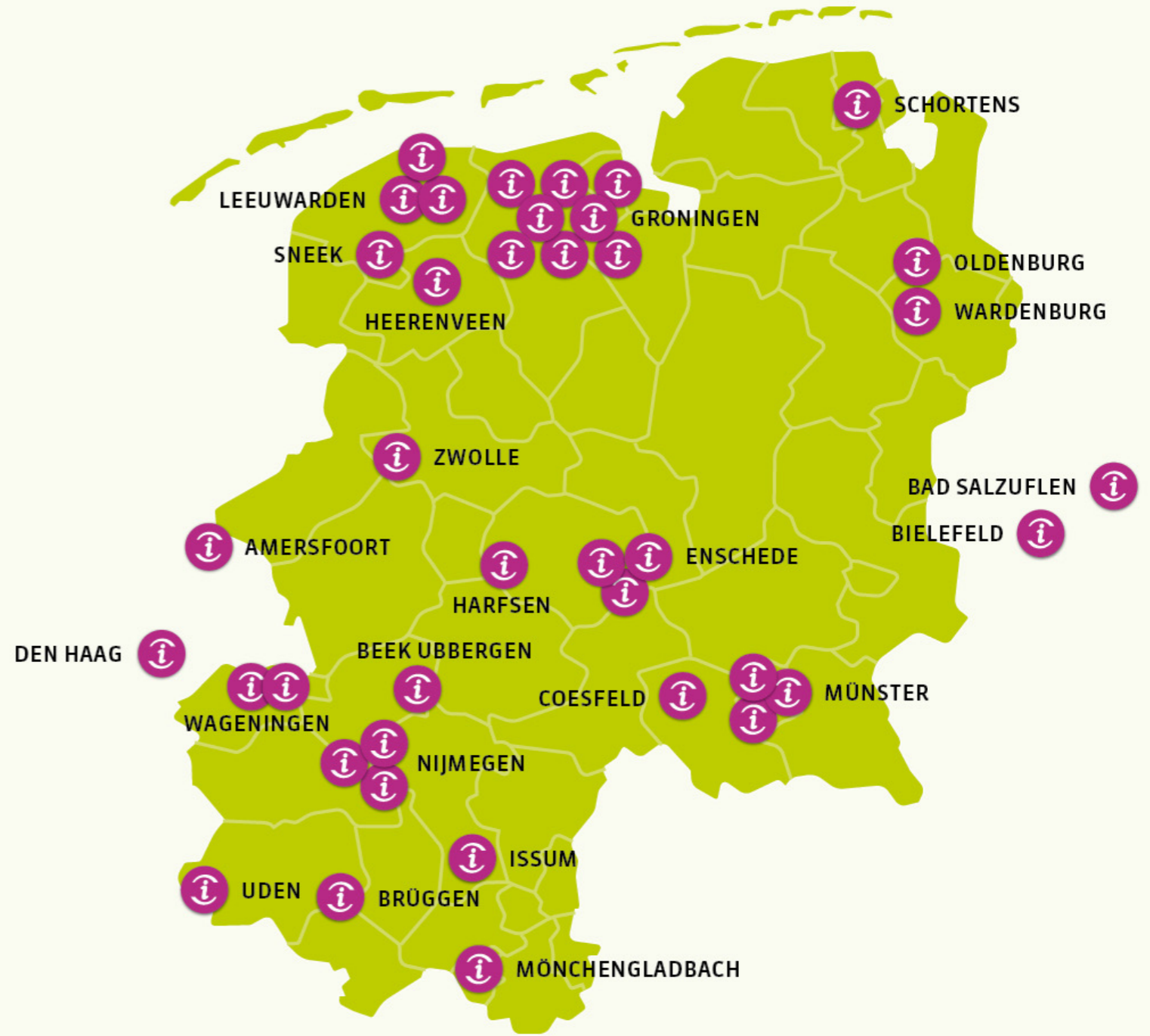
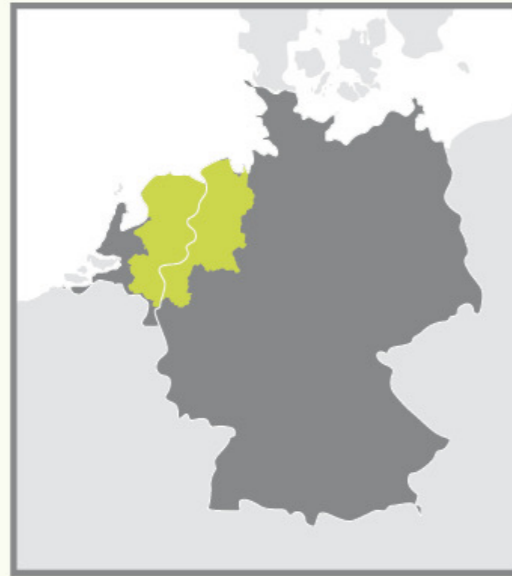


# The health-i-care film



# HEALTH *i* CARE

Innovations for safer healthcare

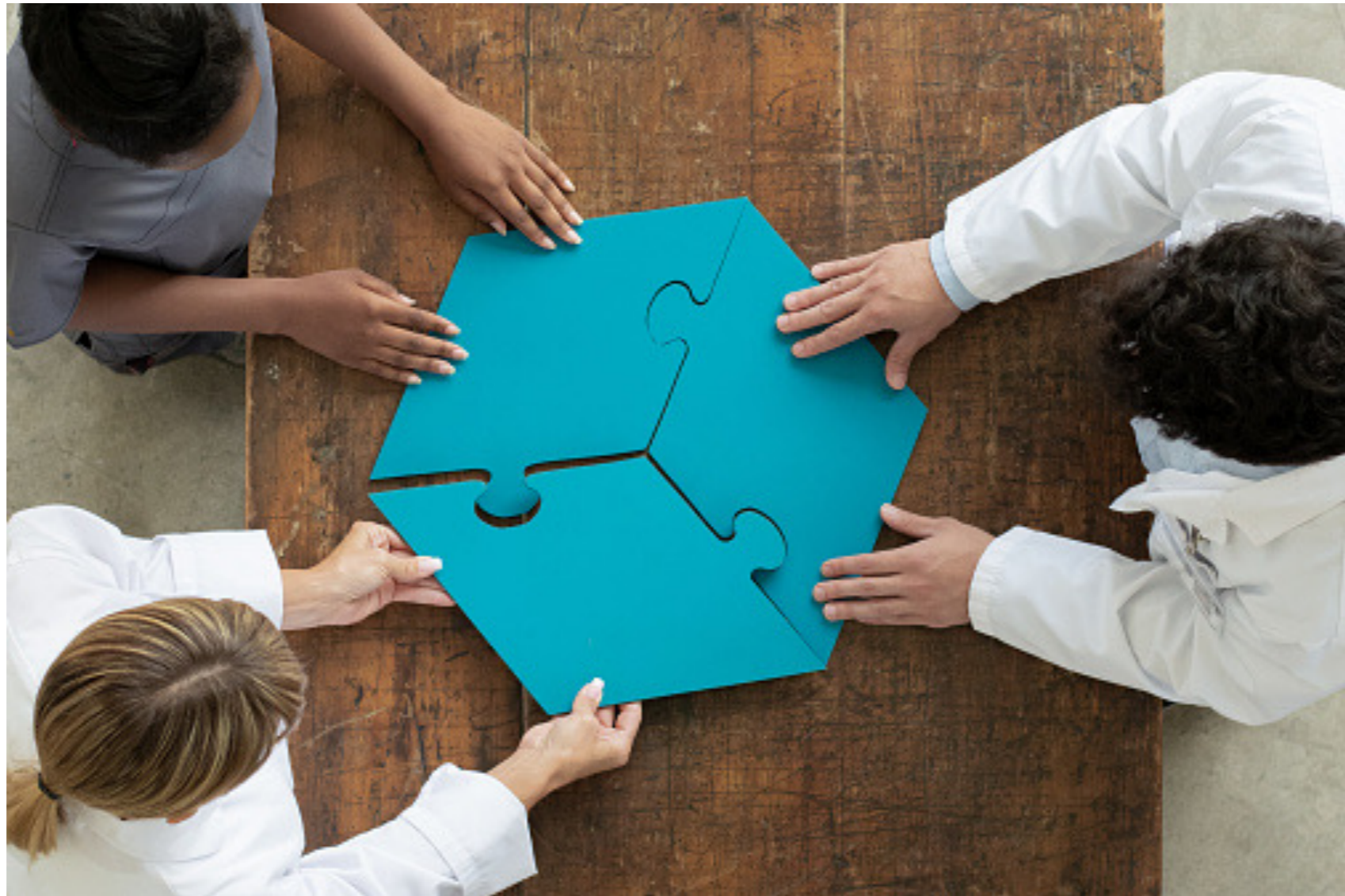


## Partner in health-i-care





**Science**



**Business**

**Health**







**health-i-care consortia**



**Science, Business AND Health  
partners**



**Dutch AND German  
partners**





Groningen

Velen

Nijmegen

Duisburg

De Lutte



2016

2017

2017

2018

2018



Groningen

Velen

Nijmegen

Duisburg

De Lutte



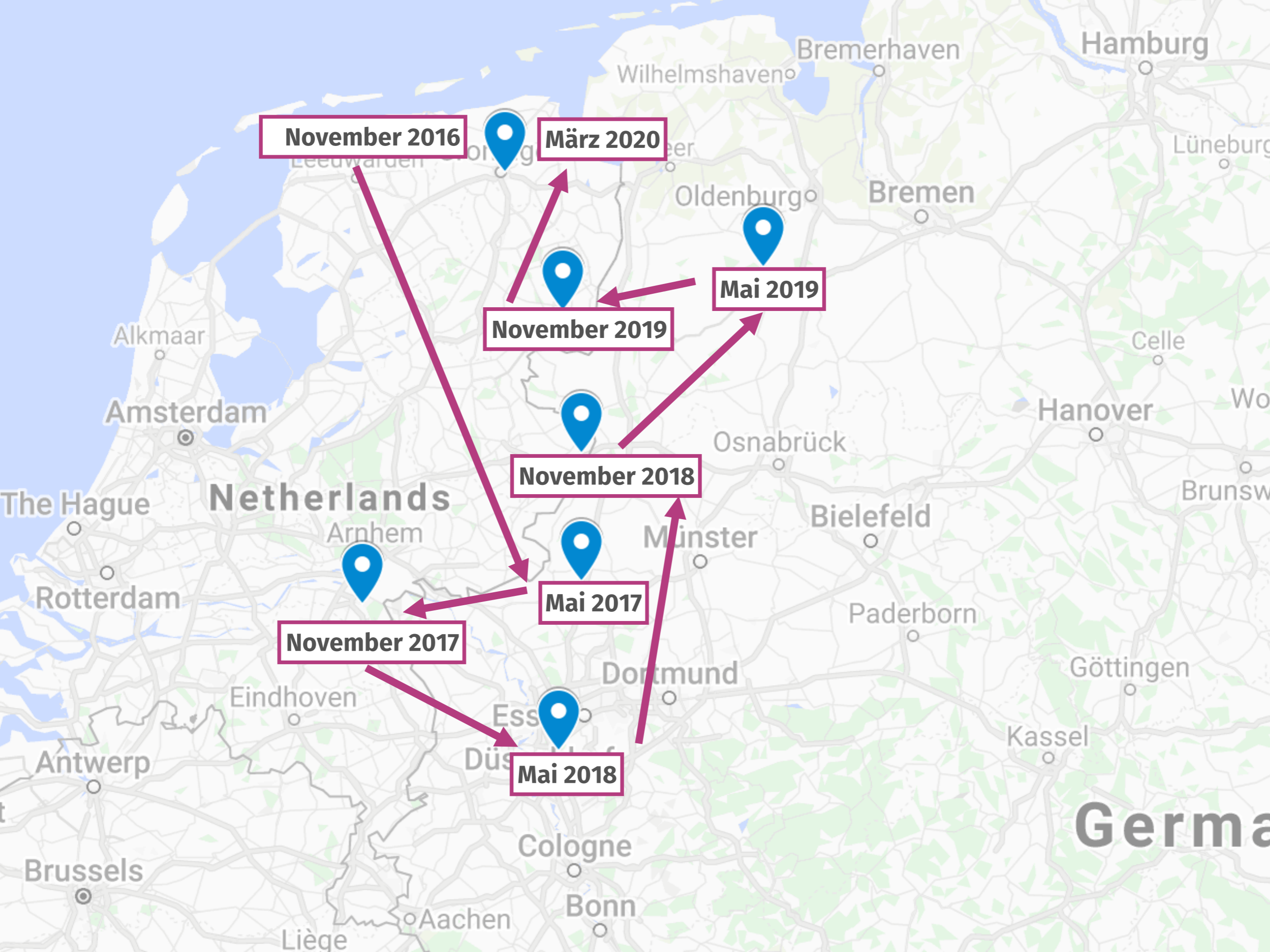
2016

2017

2017

2018

2018





# MEDICA (2028 & 2019) & ECCMID (2019)



German-Dutch Chamber of Commerce (DNHK) @DNHK · 18 nov. 2019 ...

Kom van 18 t/m 21 november langs op de @MEDICATradeFair. De DNHK is hier met health-i-care vertegenwoordigd met een stand op het Holland-Paviljoen. Aanwezige consortia zijn @checkbuster, #bananaa en @HycultBiotech.





# EXAMPLES



# Awareness & prophylaxis with and for children

Prophylactic reduction of the risk of hand-transmitted infections by improving hand hygiene →

1. Age-appropriate dispensing systems and interventions in primary schools (children)
2. Establishment of a hygiene monitoring system (OHMS) and promotional measures in nursing homes (older people)





# Awareness & prophylaxis with and for children

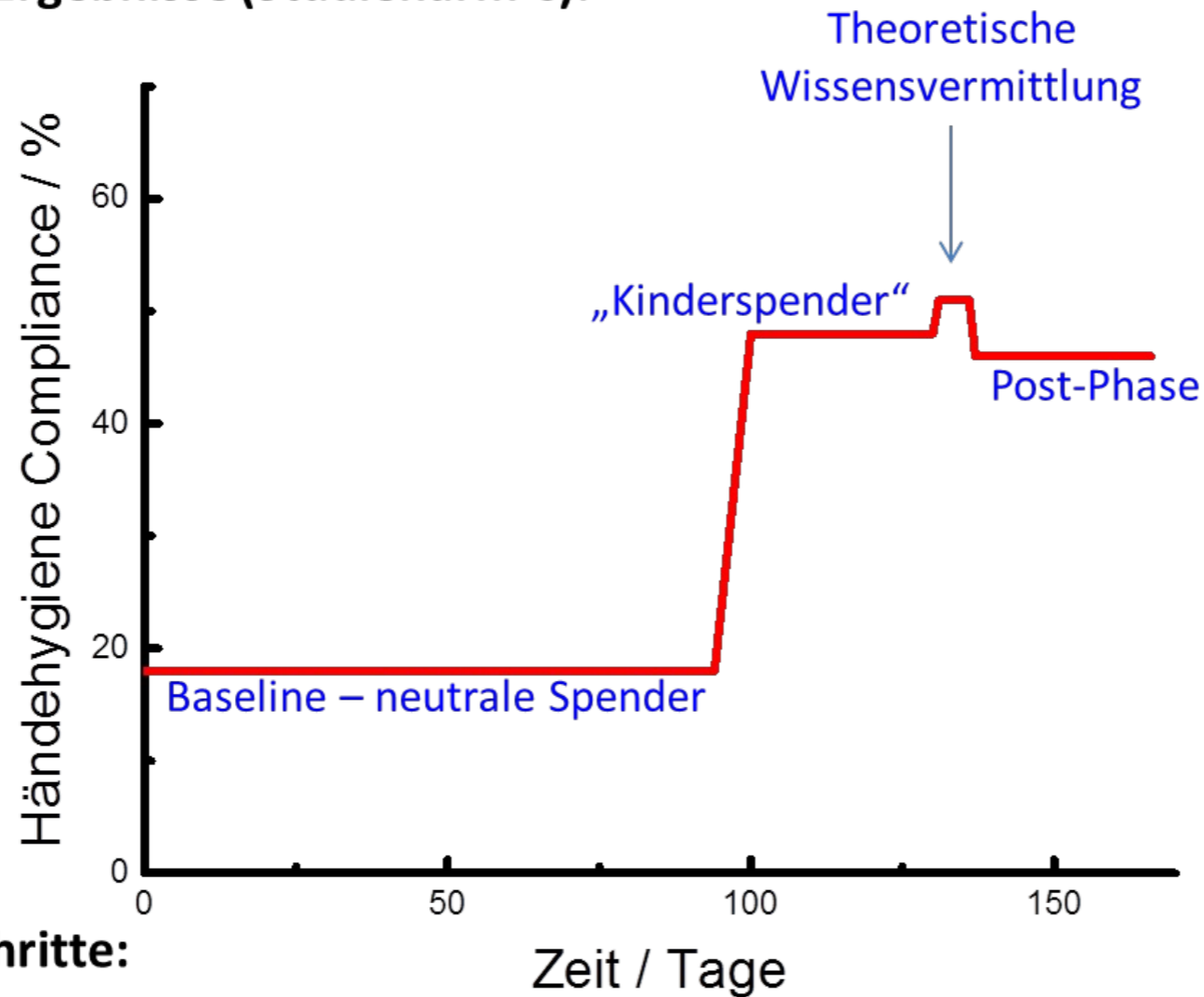






# Awareness & prophylaxis with and for children

## Vorläufige Ergebnisse (Studienarm C):



## Weitere Schritte:

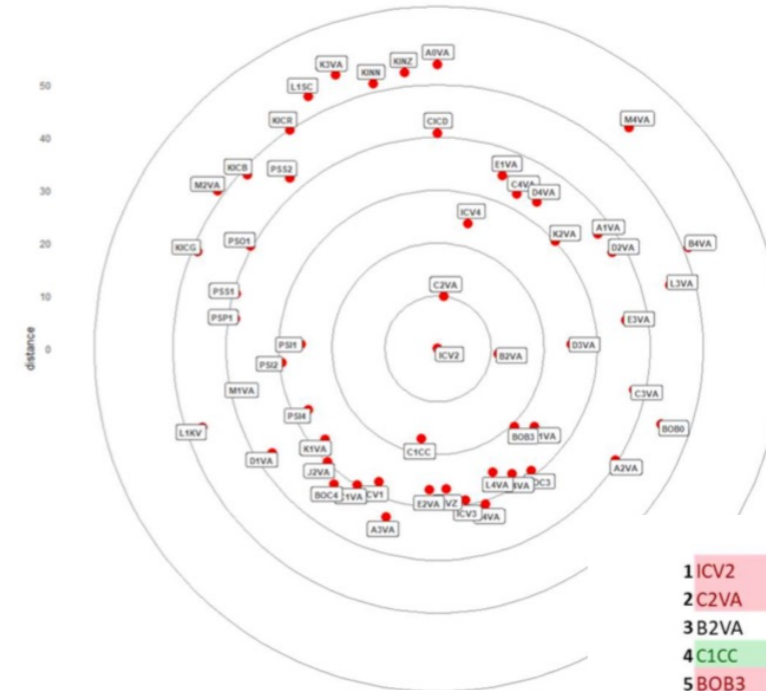
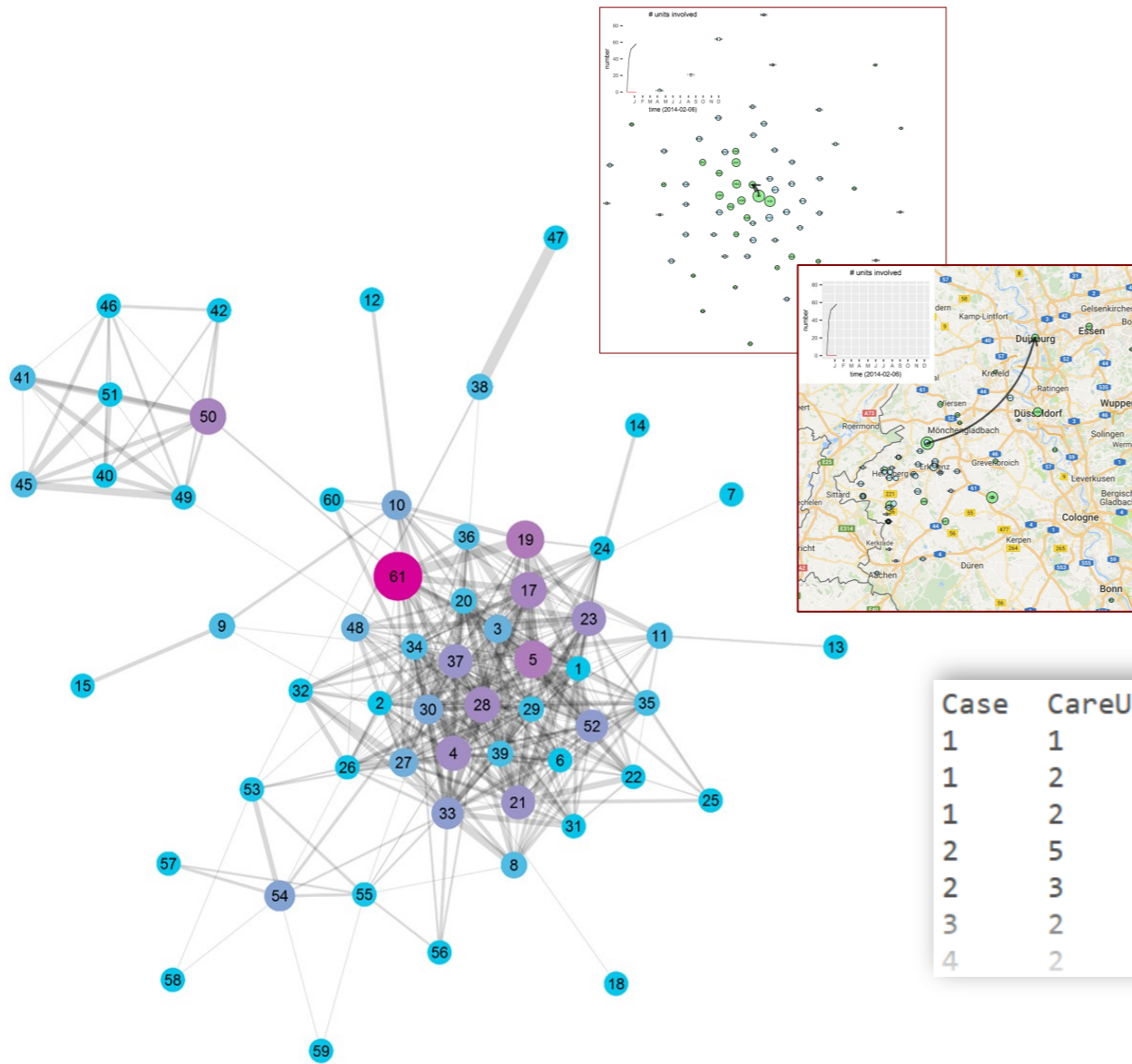
- Auswertung der Daten
- Optimierung, Anpassung und Marktreife des Spenders
- Ausweitung der Studien auf weitere Schulen und Schulformen





# Hub-based outbreak control

## Netzwerk (hub) analyse



- 1 ICV2
- 2 C2VA
- 3 B2VA
- 4 C1CC
- 5 BOB3
- 6 B1VA
- 7 ICV4
- 8 D3VA
- 9 L4VA
- 10 PSI1
- 11 CIVZ
- 12 E2VA
- 13 PSI4
- 14 K1VA
- 15 E4VA
- 16 ICV1
- 17 BOC3
- 18 ICV3
- 19 PSI2
- 20 J2VA
- 21 C1VA
- 22 K2VA
- 23 K4VA
- 24 BOC4
- 25 C4VA
- 26 A3VA
- 27 D4VA
- 28 E1VA
- 29 M1VA
- 30 E3VA
- 31 D1VA
- 32 A1VA
- 33 D2VA
- 34 C3VA
- 35 PSP1
- 36 PSS1
- 37 A2VA
- 38 PSO1
- 39 CICD
- 40 PSS2
- 41 BOBO
- 42 L3VA
- 43 L1KV
- 44 KICB
- 45 KICG
- 46 KICR
- 47 B4VA
- 48 M2VA
- 49 KINN
- 50 KINZ
- 51 L1SC
- 52 A0VA
- 53 M4VA
- 54 K3VA

Case	CareUnit	Admitted	Discharged
1	1	16-09-2014	11-10-2014
1	2	11-10-2014	19-10-2014
1	2	19-10-2014	02-11-2014
2	5	03-07-2014	07-07-2014
2	3	01-08-2014	06-08-2014
3	2	09-02-2014	09-02-2014
4	2	04-03-2014	08-03-2014

[www.motivare.net](http://www.motivare.net)



umcg

NLGA Niedersächsisches Landesgesundheitsamt

CWZ Canisius Wilhelmina Ziekenhuis

ORTEC



# Anne / Eva – the virtual assistant



## MET ANNE KUNT U



### VIDEOBELLEN

Gemakkelijk beeldbellen met familie, vrienden of zorgprofessionals

Zo kunt u de diëtiste spreken en samen met de fysiotherapeut oefenen

*(standaard inbegrepen)*

[Lees meer >](#)



### SPRAAKHERKENNING

Anne luistert, reageert of helpt herinneren

*(standaard inbegrepen)*

[Lees meer >](#)



### RADIO

Luister samen met Anne naar uw favoriete radiozender

[Lees meer >](#)



### AGENDA

Anne herinnert u aan uw afspraken

*(standaard inbegrepen)*

[Lees meer >](#)



### MEDICATIE

Anne herinnert u aan het innemen van uw medicatie

*(standaard inbegrepen)*

[Lees meer >](#)



### SPELLETJES

Speel verschillende spelletjes met Anne

[Lees meer >](#)



### ALBUM

Met Anne kunt u uw foto's en video's bekijken

[Lees meer >](#)



### NIEUWS

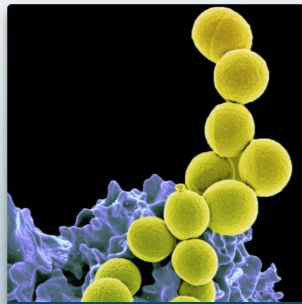
Met Anne heeft u altijd het laatste nieuws



Landeszentrum Gesundheit  
Nordrhein-Westfalen



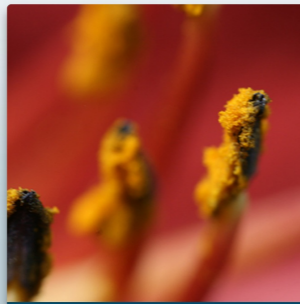
4All



Resistentie tegen antibiotica // Antibiotika Resistenz



read



Hooikoorts // Heuschnupfen



read



Antibiotica gebruiken? // Antibiotika verwenden?



read



Regels voor barbecueën // Regeln zum Grillen



read



Han de wasbeer



Über Hannes der Waschbär



read



About Ronnie Raccoon



read



Over Han de Wasbeer

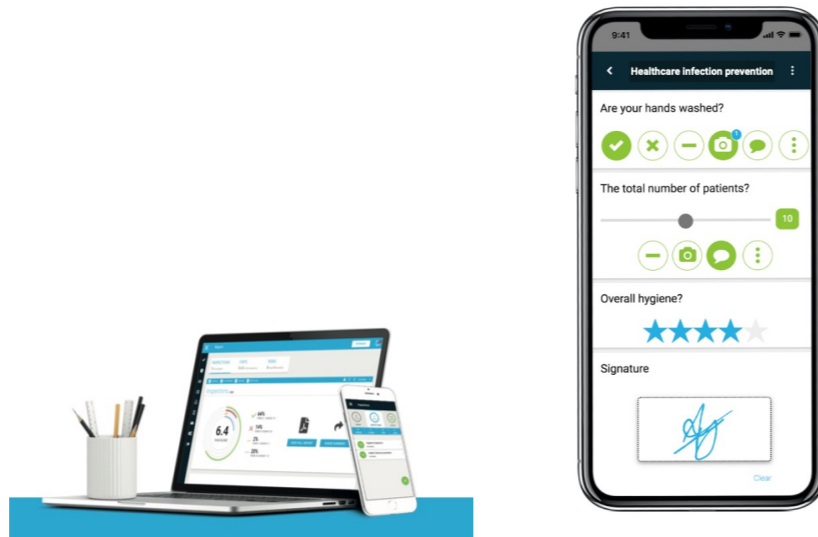


read

<https://www.goviralgo.nl>



# More digital solutions



<https://checkbuster.com>



<https://hycultbiotech.com>



Ontdek hier onze software

**ellen ellen**  
ruimt op bezoekt

**ellen**  
evalueert

<https://ellensoftware.nl>



Hygiëne herkenning met behulp van VR

<https://coolminds.nl/>



### WAS IST HEALTH-I-CARE?

Health-i-care konzentriert sich auf die Entwicklung innovativer Produkte und Technologien zum Schutz der Bevölkerung vor Infektionen mit besonders resistenten Mikroorganismen und zur Vermeidung von Antibiotikaresistenzen.

[MEHR LESEN →](#)



**CROSS-BORDER INNOVATIONS** **30 CONSORTIA**  
**EU PROJECT**  
**GERMAN-DUTCH BORDER REGION**  
**BUSINESS, HEALTH & SCIENCE**

**FIGHTING TOGETHER FOR SAFER HEALTHCARE**  
**AGAINST AMR, INFECTIONS &**  
**ALL PATHOGENS (also SARS-CoV-2)!**



Das Projekt wird im Rahmen des INTERREG-Programms Deutschland-Niederland durchgeführt und finanziell unterstützt von:  
Het project wordt in het kader van het INTERREG-programma Deutschland-Niederland uitgevoerd en financieel ondersteund door:



Ministerium für Wirtschaft, Innovation,  
Digitalisierung und Energie  
des Landes Nordrhein-Westfalen



WIJ WERKEN SAMEN. WIR ARBEITEN ZUSAMMEN.



*Think out of the box  
and across the border!*



**Thank you for your attention 😊**