State of the Art in Prostate Cancer • 14 sept 2016

Robot geassisteerde Laparoscopische Prostatectomie

Voorbij de controverse?

Dr. Joost Berkers • Dept Urologie RZ Tienen / UZ Gasthuisberg

rz tienen
regionaal ziekenhuis
heilig hart tienen vzw

KAREL ČAPEK

R.U.R.

ROSSUM'S UNIVERSAL ROBOTS

KOLEKTIVNÍ DRAMA
O VSTUPNÍ KOMEDII A TŘECH AKTECH

VYDALO AVENTINUM V PRAZE 1920

ROBOT : “system that can make decisions and perform tasks”


What's Next in Medicine
human touch.
dS De Standaard
Meest recent Binnenland Buitenland Opinie Biz Cultuur Sport Life&Style Beroemd&Bizar Niet te missen Meer
NEDERLANDSE STUDIE TREKT OPERATIEROBOTS IN TWIJFEL
'Operaties met robots duur maar niet beter'
15 MEI 2014 OM 03:00 UUR | Van onze redactrice Maxie Eckert
Na de VS telt ons land de meeste operatierobots per inwoner. Met die robots zouden patiënten nauwkeuriger en met minder complicaties geopereerd kunnen worden. Nederlands onderzoek stelt die dure operatietechniek nu ter discussie. 'Operaties duren langer en er blijven meer kankercellen achter.'
dr. Susan
chirurg/fellow
Meander MC Amers
UMC Utrecht
HOEWEL SLUITEND BEWIJS DOOR SNELLE
Met een robot
gaat gewoon beter

da Vinci® Xi™

SURGICAL SYSTEM

da Vinci® Xi™

SURGICAL SYSTEM

PN 1006780 Rev A 3/14

DA VINCI SURGICAL SYSTEMS CORE TECHNOLOGIES

A natural extension of the surgeon's eyes and hands into the patient

MAGNIFIED 3D HD VISION

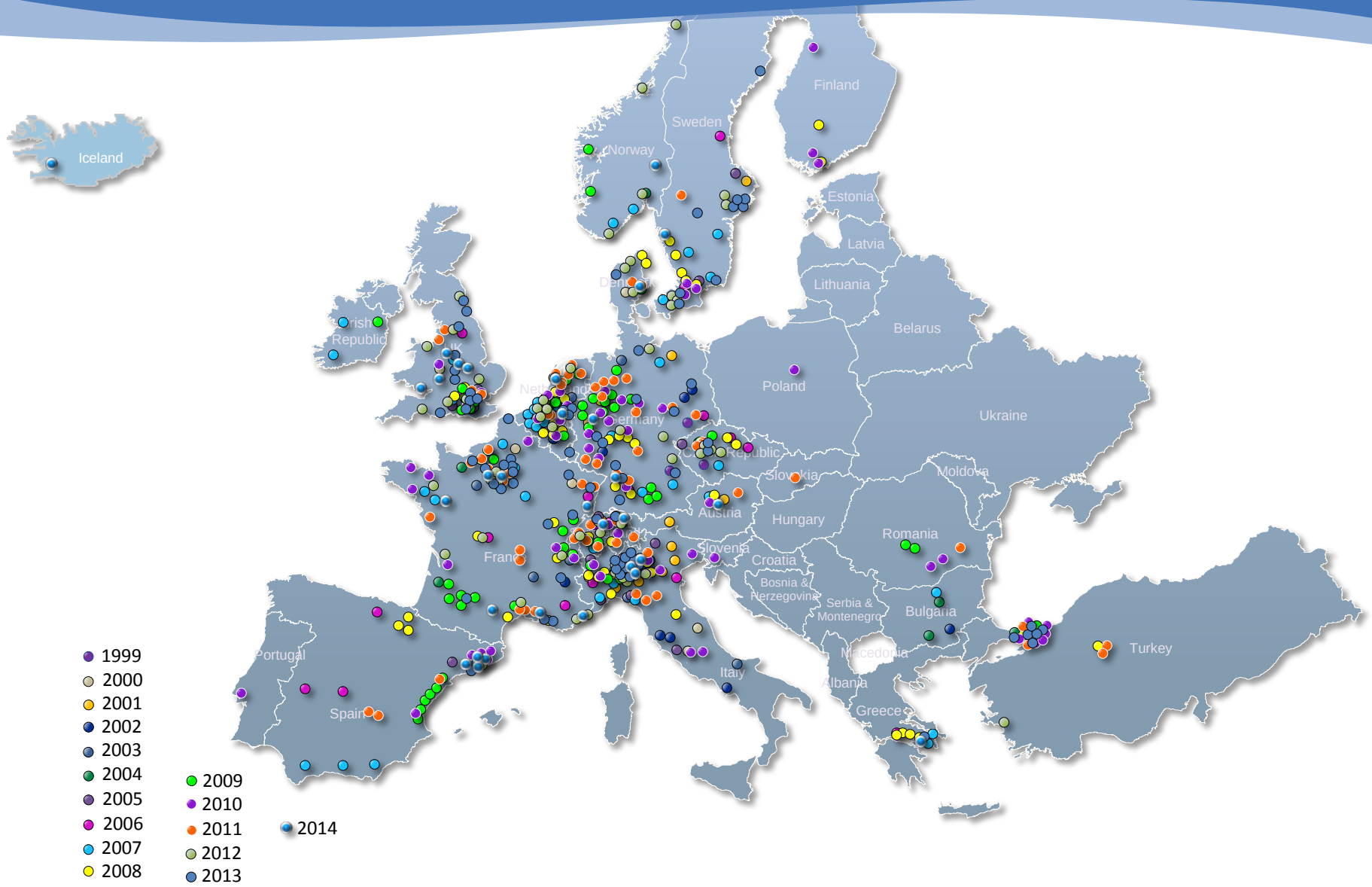
***ENDOWRIST*® INSTRUMENTATION WITH INTUITIVE® MOTION**

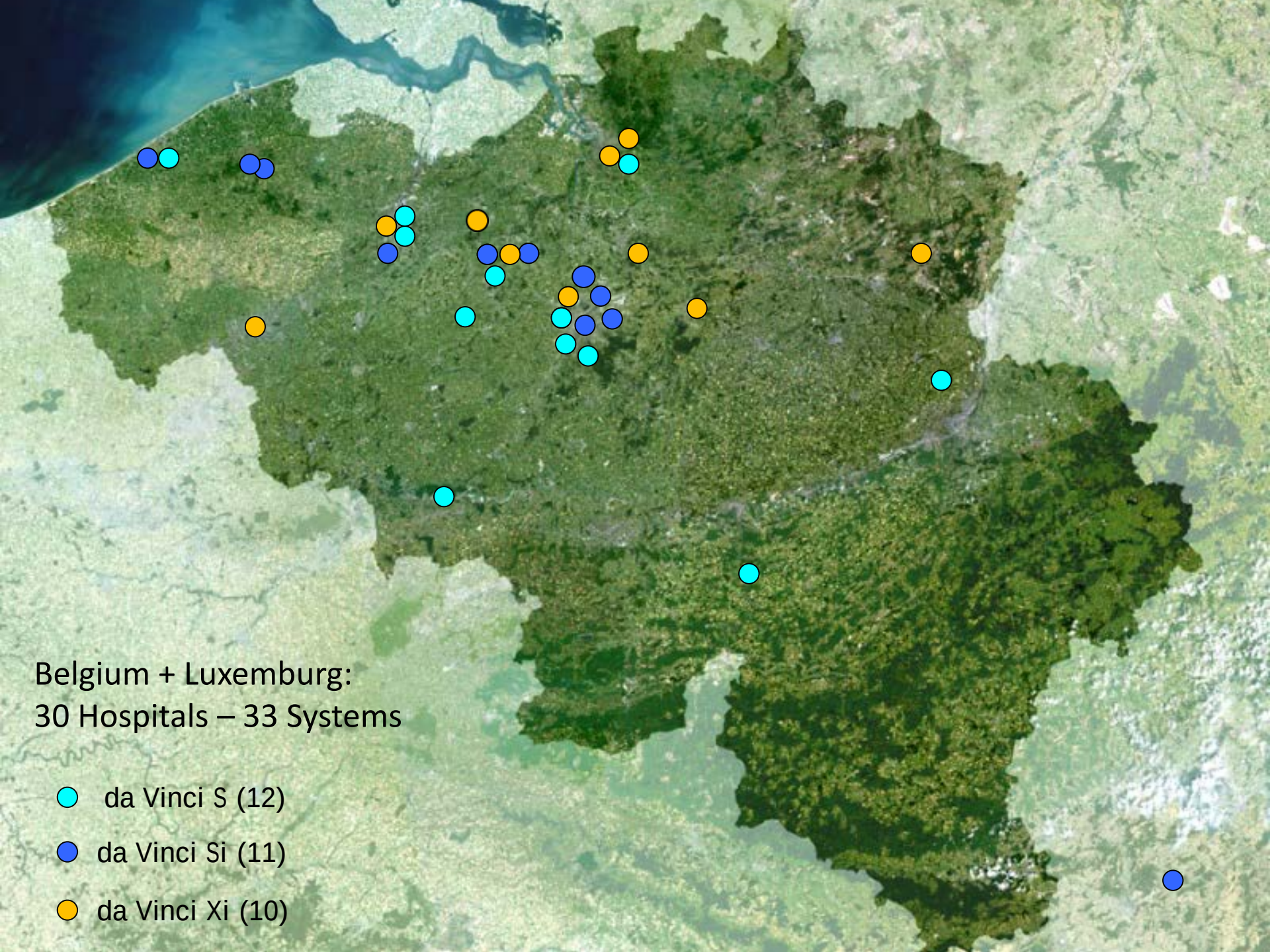
ENHANCED ERGONOMICS

PN 1006780 Rev A 3/14

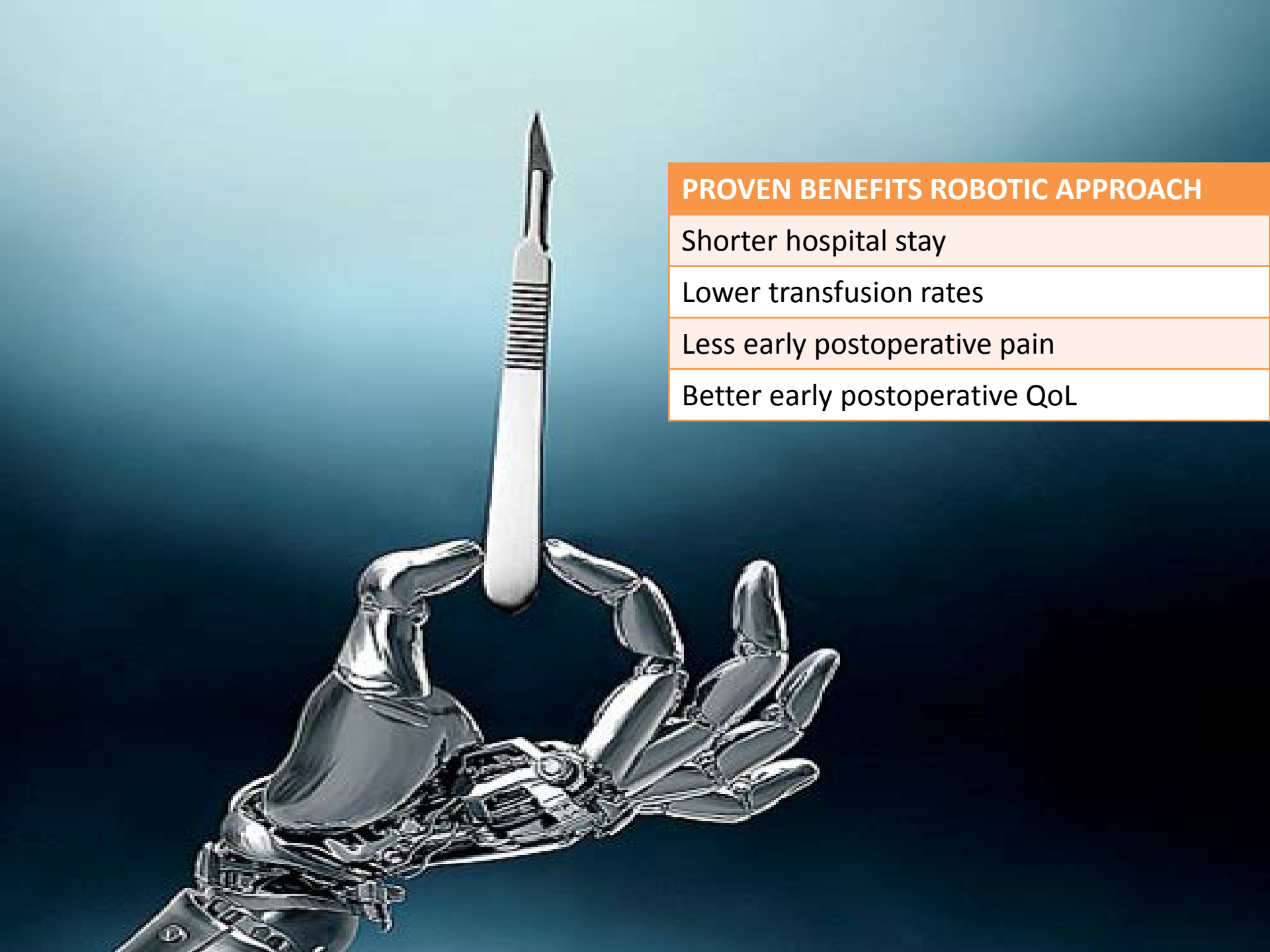
da Vinci® European Cumulative Installs

1999 – 2014




Belgium + Luxemburg:
30 Hospitals – 33 Systems
da Vinci S (12)
da Vinci Si (11)
da Vinci Xi (10)

rz tienen
regionaal ziekenhuis
heilig hart tienen vzw



PROVEN BENEFITS ROBOTIC APPROACH
Shorter hospital stay
Lower transfusion rates
Less early postoperative pain
Better early postoperative QoL

THE JOURNAL of UROLOGY®

Official Journal of the American Urological Association

< Previous Article | July 2016 Volume 196, Issue 1, Pages 76–81 | Next Article >

Comparison of Perioperative and Early Oncologic Outcomes between Open and Robotic Assisted Laparoscopic Prostatectomy in a Contemporary Population Based Cohort

Shane M. Pearce, Joseph J. Pariser, Theodore Karrison, Sanjay G. Patel, Scott E. Eggener

RARP (n=73.131) vs. ORP (n=23.804)	RETROSPECTIVE COHORT
15% lower chance positive surgical margin in T2 Prostate cancer	
29% lower chance need for adjuvant radiotherapy	
72% lower chance peri-operative mortality	

European Urology

Volume 68, Issue 2, August 2015, Pages 216–225

Platinum Priority – Prostate Cancer

Urinary Incontinence and Erectile Dysfunction After Robotic Versus Open Radical Prostatectomy: A Prospective, Controlled, Nonrandomised Trial

Eva Haglind[a,*], Stefan Carlsson[b], Johan Stranne[c], Anna Wallerstedt[b], Ulrica Wilderäng[d], Thordis Thorsteinsdottir[d,e], Mikael Lagerkvist[f], Jan-Erik Damber[c], Anders Bjartell[g], Jonas Hugosson[c], Peter Wiklund[b], Gunnar Steineck[d,h], on behalf of the LAPPRO steering committee[†],

RARP (n=1847) vs. ORP (n=778) PROSPECTIVE	NON RANDOMISED
5% lower chance Erectile Dysfunction at 12M	
Incontinence equal	

Robot-assisted laparoscopic prostatectomy versus open radical retropubic prostatectomy: early outcomes from a randomised controlled phase 3 study

John W Yaxley, Geoffrey D Coughlin, Suzanne K Chambers, Stefano Occhipinti, Hema Samaratunga, Leah Zajdlewicz, Nigel Dunglison, Rob Carter, Scott Williams, Diane J Payton, Joanna Perry-Keene, Martin F Lavin, Robert A Gardiner

RARP (n=151) vs. ORP (n=157) **RANDOMISED**
PROSPECTIVE

Functional outcome equal at 12 Weeks

Pathological outcome equal

radical retropubic prostatectomy: early outcomes from a randomised controlled phase 3 study

John W Yaxley, Geoffrey D Coughlin, Suzanne K Chambers, Stefano Occhipinti, Hema Samaratunga, Leah Zajdlewicz, Nigel Dunglison, Rob Carter, Scott Williams, Diane J Payton, Joanna Perry-Keene, Martin F Lavin, Robert A Gardiner

ELSEVIER

European Urology

Available online 11 February 2016

In Press, Corrected Proof — Note to users

Prostate Cancer

Robot-assisted Versus Open Radical Prostatectomy: A Contemporary Analysis of an All-payer Discharge Database

Jeffrey J. Leow[a, b, †], Steven L. Chang[a, c, †], Christian P. Meyer[a], Ye Wang[a], Julian Hanske[a], Jesse D.

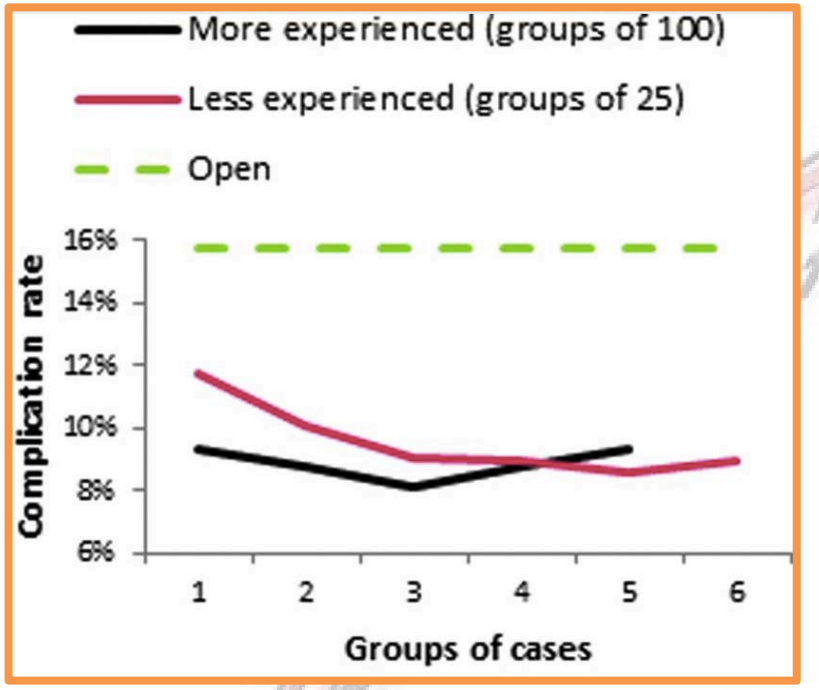
Federaal Kenniscentrum voor de Gezondheidszorg
Centre Fédéral d'Expertise des Soins de Santé
KCE

RARP (2009)

Total procedure: €4000 extra cost

BENEFIT SHORTER HOSPITAL STAY & LOWER EARLY MORBIDITY ***NOT*** INCLUDED!

WHAT ABOUT THE LEARNING CURVE?



Cases experience needed to reach plateau	
Operating time:	10 - 30 cases
Funct/Onco outcome:	80 - 200 cases

Davies et al. J Endourol 2014
Ahlering et al. *J Urol* 2003
Zorn et al. *Can J Urol* 2009
Doumerc et al. *BJU Int* 2010.

ROBOT PROSTATECTOMIE: VOORBIJ DE CONTROVERSE?

PRO
Early postop complication rates
Hospital stay
Learning curve
Small benefit erectile function

CONTRA
No proven continence benefit
No proven oncological benefit
Cost!!!

ROBOT PROSTATECTOMIE: VOORBIJ DE CONTROVERSE?

1. Robot: Patient/Surgeon/Industry driven technology
   - Need for competing industry
   - Need for more prospective good quality long term data

2. Quality of overall prostate cancer care more important than technique

3. Patients should be encouraged to choose an experienced surgeon they trust and with whom they have rapport, rather than a specific surgical approach