

# Agenda Proven Performance

- . Hvem er Stryker
- . Valg af implantat
- . Triathlon knæ filosofi
- . Single Radius
- . Reg Data
- . Ref liste
- . Q&A

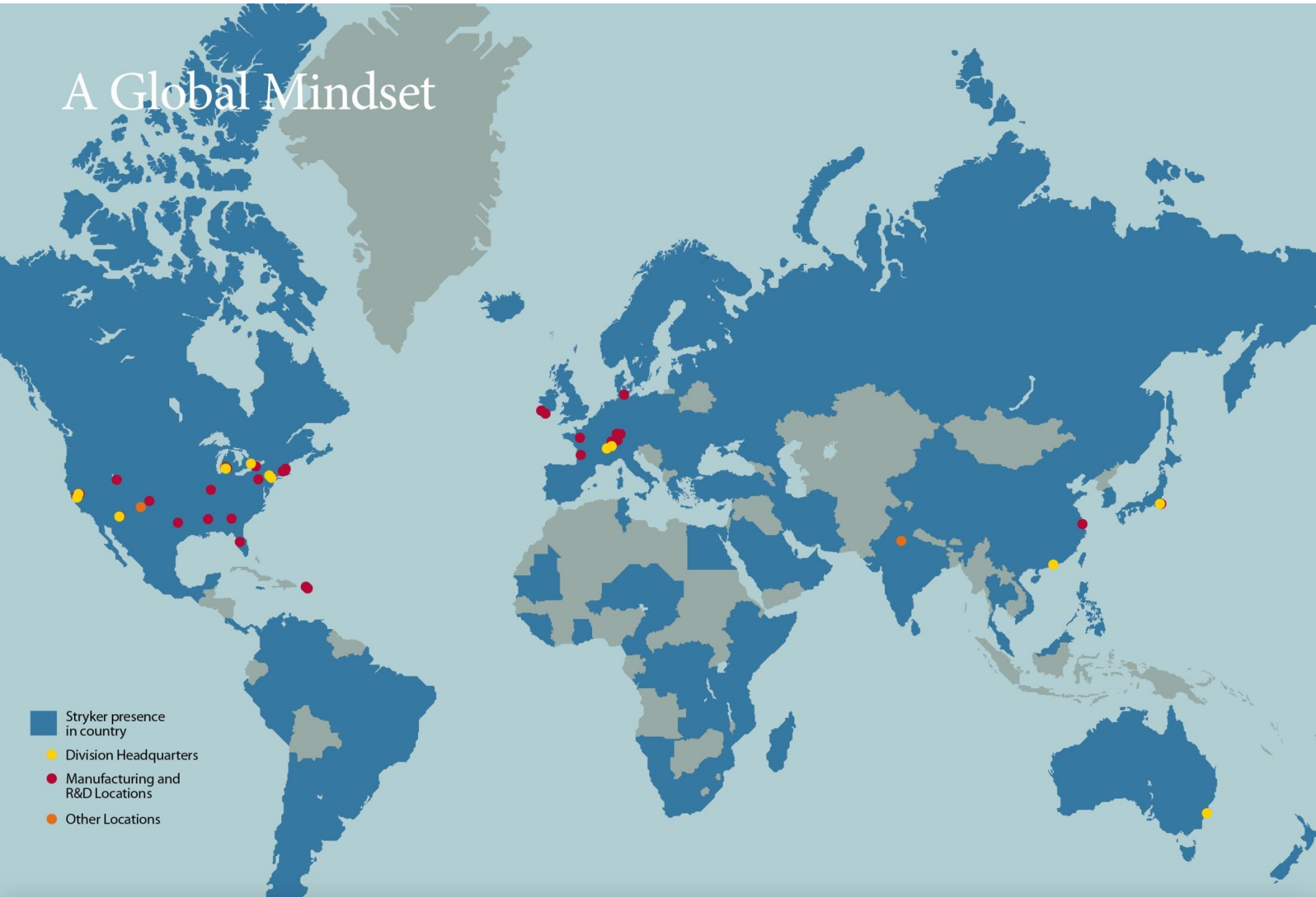
“Don’t just replace the knee, replace the way the knee moves”

## **Triathlon**

10 Years | 1 Million+ Implantations Worldwide | Proven Performance

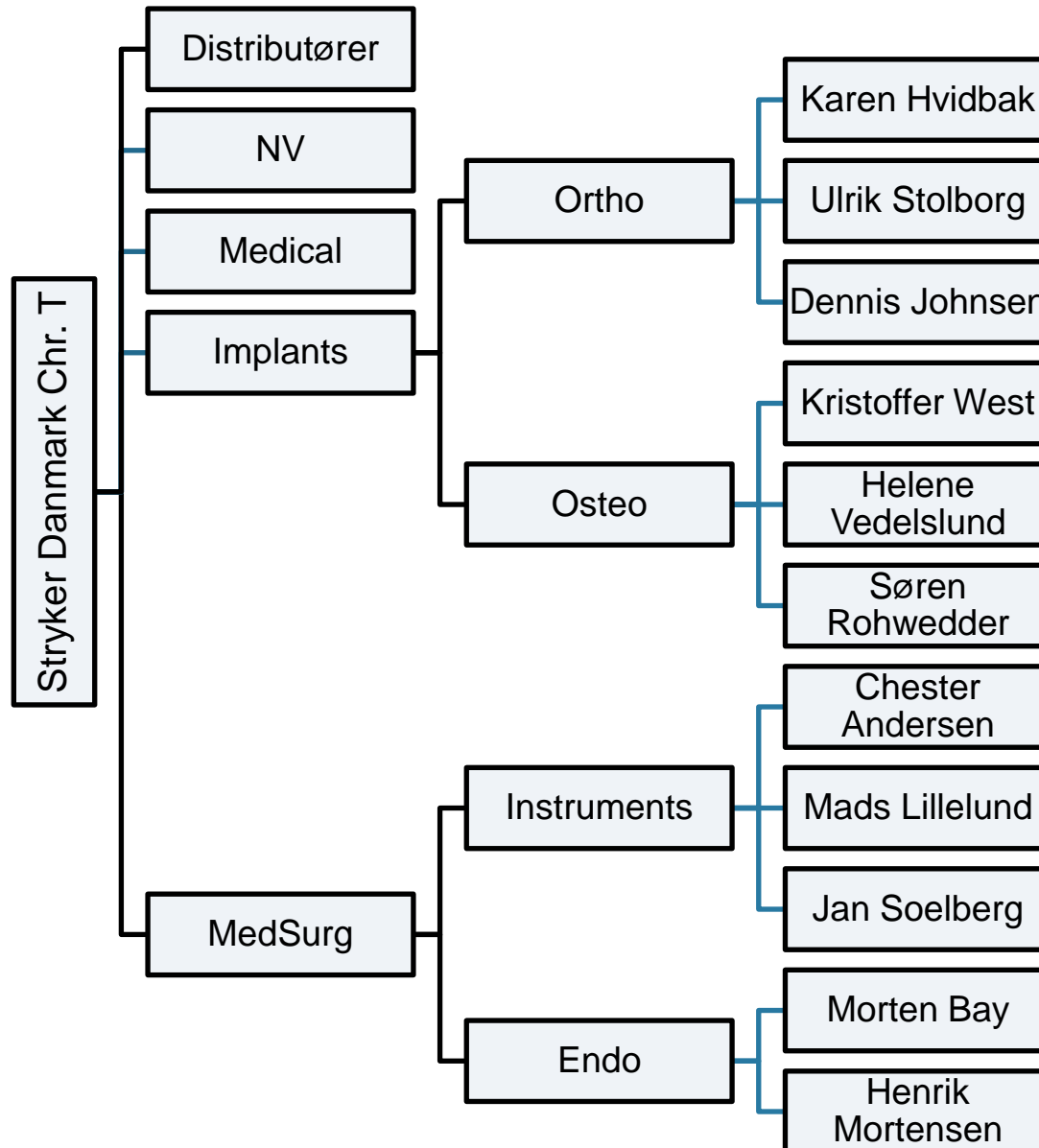
# A Global Mindset

- Stryker presence in country
- Division Headquarters
- Manufacturing and R&D Locations
- Other Locations





# Stryker Danmark Overview



# Proven Performance

**Fordi det er baseret på  
Valg af implantat  
....  
Triathlon Knee System**





## Knee Philosophy – “det naturlige knæ”



The Knee has **3 arcs** of flexion: the extension arc, the functional arc and the deep flexion arc.<sup>27</sup>

Freeman et al: Tibiofemoral movement 1: the shapes and relative movements of the femur and tibia in the unloaded cadaver knee. J Bone Joint Surg Br. 2000 Nov;82(8):1189-95.



The knee has **2 axes**: the flexion axis of the femur and the Internal / External axis of the tibia.<sup>28,29</sup>

Hollister A, Jatana S, Singh A, Sullivan W, Lupichuk A.: The Axes of Rotation of the Knee Clin Orthop Relat Res. 1993 May;(290):259-68

Churchill D, Incavo S, Johnson C, Beynnon B: The transepicondylar axis approximates the optimal flexion axis of the knee. Clin Orthop Relat Res. 1998 Nov;(356):111-8.



The femoral condyle engaged during the functional arc can be described as **1 Shape**: A single radius.<sup>30,31</sup>

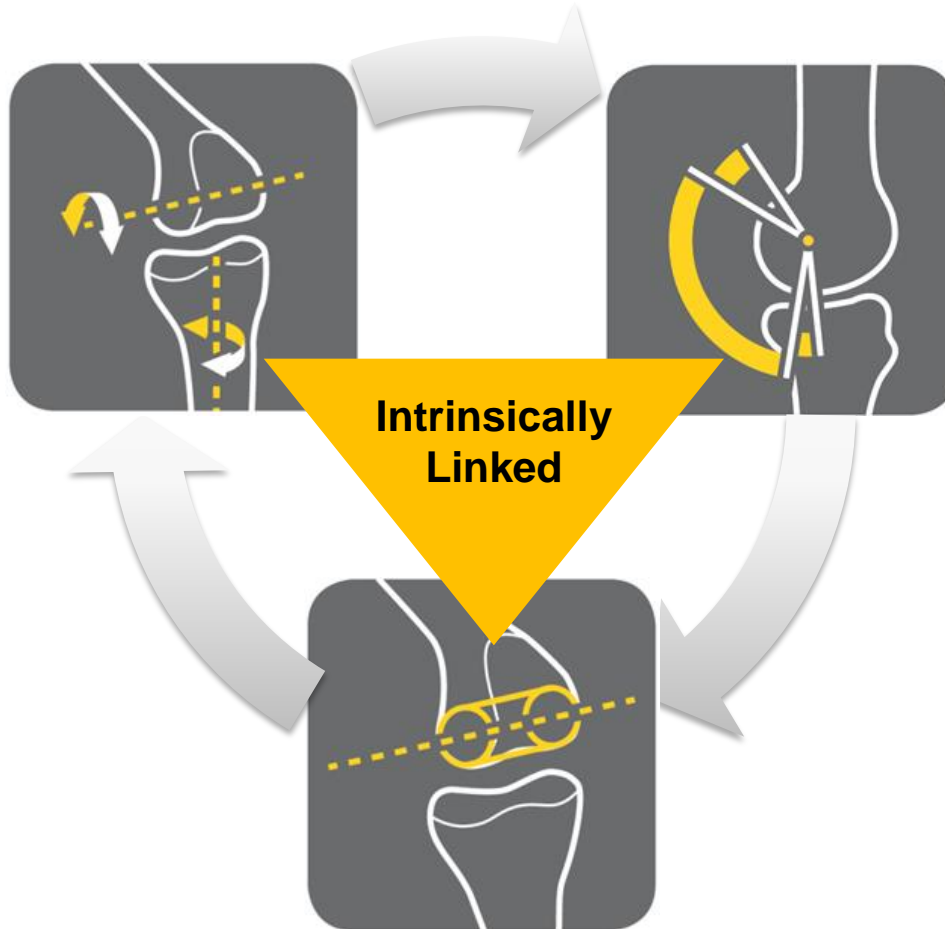
Eckhoff D, Bach J, Spitzer V, Reinig K, Bagur M, Baldini T, Rubinstein D, Humphries S: Three-Dimensional Morphology and Kinematics of the Distal Part of the Femur Viewed in Virtual Reality. Part II. J Bone Joint Surg Am. 2003;85:97-104.

Asano T, Akagi M, Nakamura T: The functional flexion-extension axis of the knee corresponds to the surgical epicondylar axis: in vivo analysis using a biplanar image-matching technique. J Arthroplasty. 2005 Dec;20(8):1060-7



# Knee Philosophy

2 axes



3 arcs

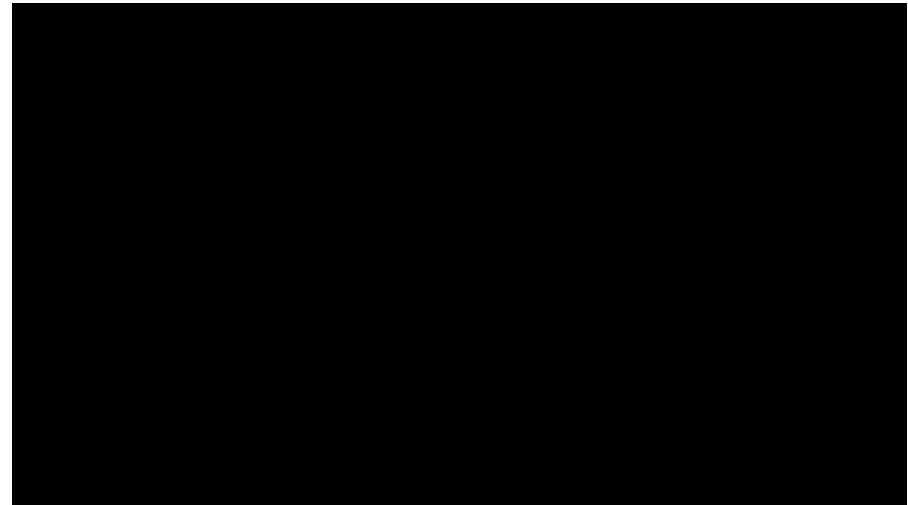
1 Shape:



## Knee Design

### Single Radius Design

in the functional arc offers potential to require 57% less quadriceps force.<sup>36</sup>



Improved Ligament Balance with  
**Single Radius**<sup>27,28</sup>

Modern research revealed the posterior condyles were circular.  
<sup>27,28</sup>

Improved Extensor Mechanism with  
**Single Radius Design**<sup>36</sup>



**Since 2004, the unchanged design of Triathlon has over 1 million implantations**



**FACT #1**

**A CLINICAL STUDY  
HAS SHOWN THAT  
STRYKER'S  
SINGLE RADIUS KNEE  
DELIVERS BETTER  
FUNCTIONAL  
OUTCOMES THAN A  
MULTI-RADIUS DESIGN**

**Since 2004, the unchanged design of Triathlon has over 1 million implantations**



## **FACT #5**

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**GLOBAL REGISTRY DATA** 55,56,57  
**SHOWS THAT THE  
UNCHANGED DESIGN OF  
THE TRIATHLON® KNEE  
HAS ONE OF THE  
LOWEST REVISION RATES  
IN THE INDUSTRY**

# Triathlon® Knee System

stryker®

## Performance

### British Registry:

0.99% revision rate  
at 5 years

### Australian Registry:

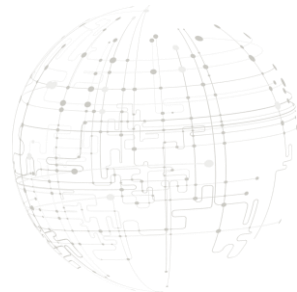
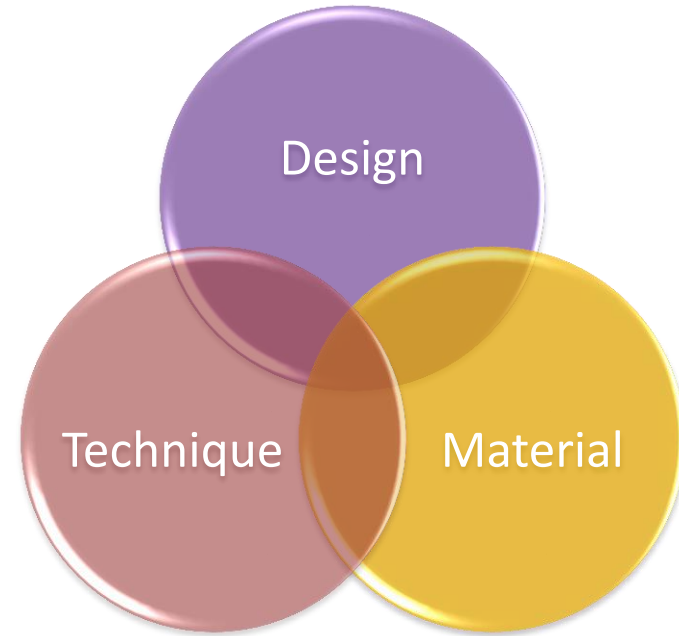
97.5 % survivorship at 5 years

### Finnish Registry:

97.4% survivorship at 5 years

### Swedish Registry 2014:

Risk of revision =  
0.72 (0.54-0.97)



**Proven**  
Performance

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# Q&A

“Don’t just replace the knee, replace the way the knee moves”

## **Triathlon**

10 Years | 1 Million+ Implantations Worldwide | Proven Performance



# SKAR 2014

RR (risk ratio) för revision med 95% konfidensintervall. Vid TKA är PFC-Sigma MBT referensen men vid UKA Link.  
 Byte av insats vid infektion har inte klassificerats som en revision

OA / TKA	n	p-värde	RR	95% CI
PFC-Sigma MBT	16 760		ref.	
AGC Anat	9 718	<0,01	1,29	1,10-1,50
F/S MIII	3 869	<0,01	1,56	1,29-1,88
PFC-Sigma HPT	11 695	0,03	0,82	0,68-0,98
Duracon	5 633	0,36	1,09	0,90-1,32
Prefix	1 911	0,13	1,27	0,93-1,73
NexGen MBT	28 654	<0,01	0,68	0,58-0,79
NexGen HPT	3 957	0,14	1,2	0,94-1,53
NexGen TM	751	0,06	0,5	0,25-1,02
PFC RP	1 050	<0,01	1,89	1,42-2,51
Triathlon	5 271	0,03	0,72	0,54-0,97
Vanguard	6 179	0,16	1,18	0,94-1,49
Övriga	2 677	<0,01	1,49	1,18-1,87
Kön (män är ref.)		0,01	1,12	1,02-1,23
Ålder (per år)		<0,01	0,96	0,95-0,96
Op-år (per år)		0,08	0,98	0,96-1,00

OA / UKA	n	p-värde	RR	95% CI
Link	2 639		ref.	
Oxford	2 290	0,86	1,02	0,83-1,25
MillerGalante	1 294	0,98	1	0,81-1,24
Genesis	453	0,49	1,12	0,80-1,58
Preservation	147	0,04	1,57	1,02-2,40
ZUK	478	0,63	0,9	0,60-1,36
Triathlon PKR	95	0,91	1,06	0,39-2,89
Övriga	64	0,72	0,83	0,31-2,24
Kön (män är ref.)		0,86	0,99	0,84-1,15
Ålder (per år)		<0,01	0,97	0,96-0,98
Op-år (per år)		0,20	1,03	0,99-1,07

Rött innebär signifikant skillnad med högre risk ratio.  
 Grönt innebär signifikant skillnad med lägre risk ratio.