

To prevent is more cost-effective than to cure

Challenges in prostate cancer

Chris Bangma

Urologist (from heal to health)

Forms of prevention

- Primary = before it starts
- Secondary = it has started but you have not noticed yet....

Screening may lead to unnecessary overdetection....

The screenshot shows a web browser window displaying the website <https://www.volksgezondheidzorg.info>. The page is titled "Prostaatanker > Preventie & Zorg > Preventie". The navigation menu includes "Home", "Onderwerpen", "Direct naar", "Verantwoording", "Over deze site", and "English". The main content area features four cards: "Cijfers & Context" (Sterfte aan prostaatanker afgenomen), "Regionaal & Internationaal" (Hogere incidentie in Noord- en West-Europa), "Kosten" (Kosten van zorg 254 miljoen euro in 2011), and "Preventie & Zorg" (Onvoldoende basis voor bevolkingsonderzoek). Below the cards, there are two tabs: "Preventie" (selected) and "Zorg". Under the "Preventie" tab, there is a section titled "Effectiviteit van screening" with a sub-section "Vroege opsporing verbetert niet per se kwaliteit van leven". The text in this section discusses the impact of early detection with PSA, citing Karim-Kos et al. (2008) and Irwig & Armstrong (2000), Korfage (2005), and Coleman et al. (2003).

Volksgezondheidzorg.info

Home Onderwerpen Direct naar Verantwoording Over deze site English

Prostaatanker > Preventie & Zorg > Preventie

Cijfers & Context
Sterfte aan prostaatanker afgenomen

Regionaal & Internationaal
Hogere incidentie in Noord- en West-Europa

Kosten
Kosten van zorg 254 miljoen euro in 2011

Preventie & Zorg
Onvoldoende basis voor bevolkingsonderzoek

Preventie Zorg

▼ Effectiviteit van screening

Vroege opsporing verbetert niet per se kwaliteit van leven

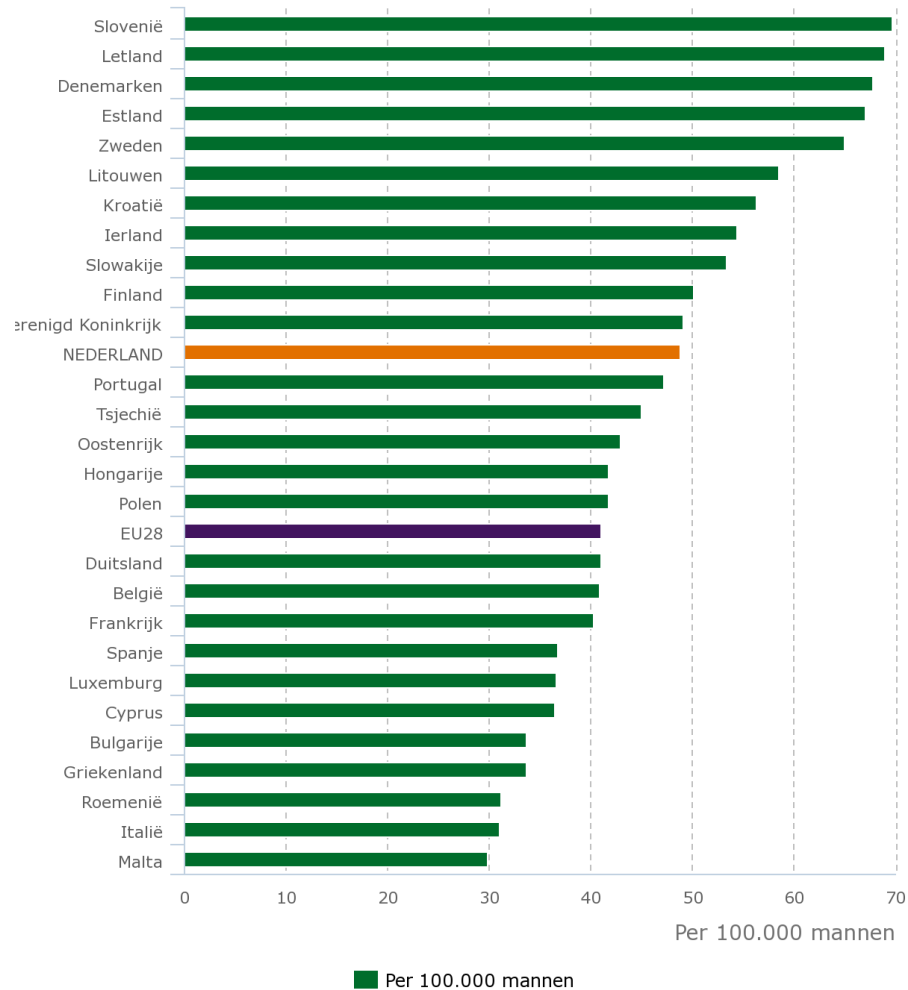
Vroege opsporing met PSA kan leiden tot vaststelling van langzaam groeiende en niet levensbedreigende tumoren en hiermee wordt de overleving aanzienlijk verlengd (Karim-Kos et al., 2008). Dit verbetert niet per se de kwaliteit van leven. Patiënten moeten bijvoorbeeld langer leven met de wetenschap kankerpatiënt te zijn. Bovendien kan er sprake zijn van overbehandeling, wat betekent dat mannen onnodig worden behandeld. De behandeling kan neveneffecten veroorzaken, zoals erectieproblemen, plasklachten en darmklachten (Irwig & Armstrong, 2000; Korfage, 2005; Coleman et al., 2003).

78.000 men with Pca, 9/1000

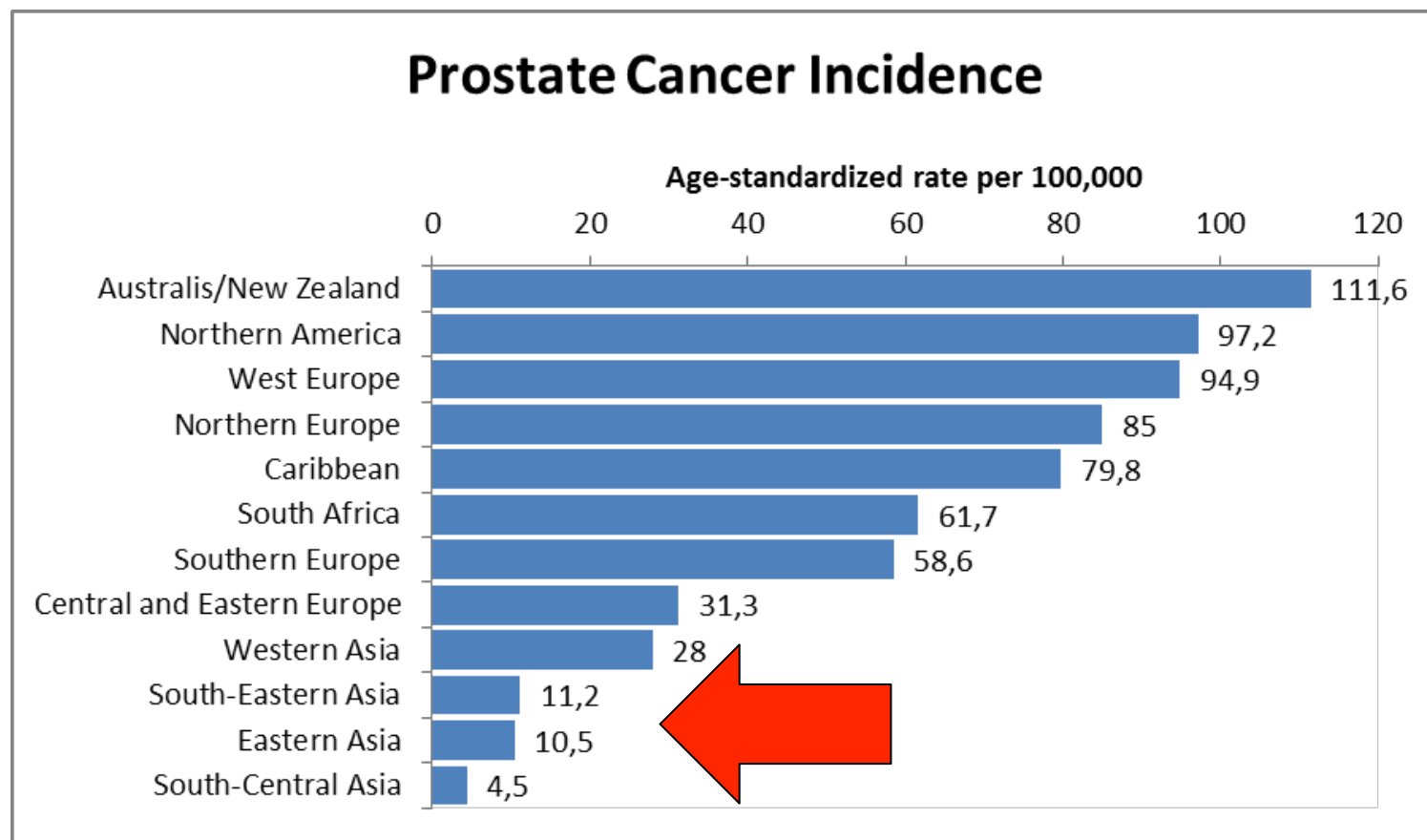


More Pca related death in NL compared to southern Europe...

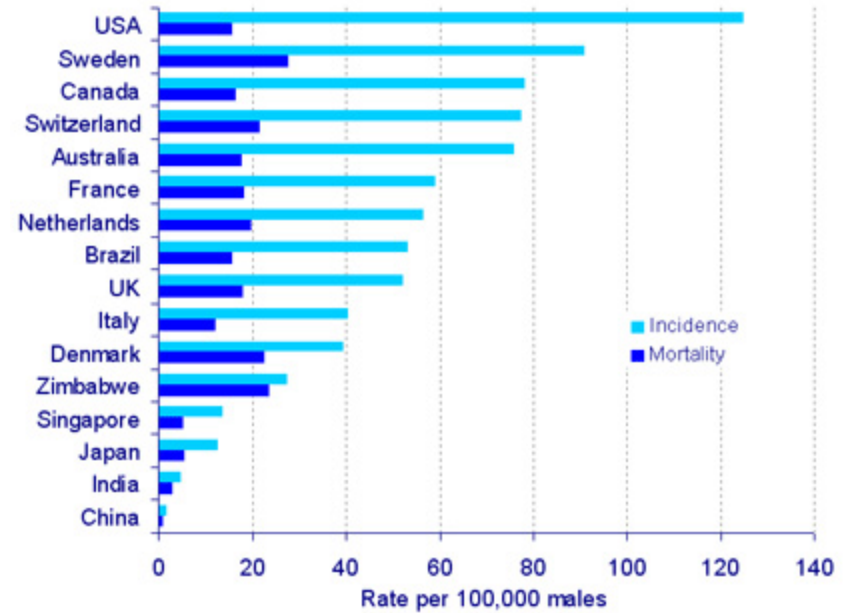
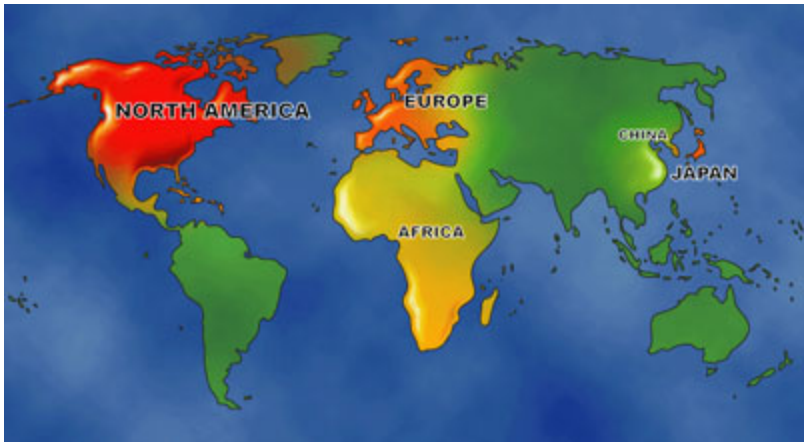
Sterfte aan prostaatcancer in EU-landen, 2013



Prostate Cancer incidence in Asia



Increase of incidence in all age groups world wide



Screening is part of the strategy increasing prostate health world wide

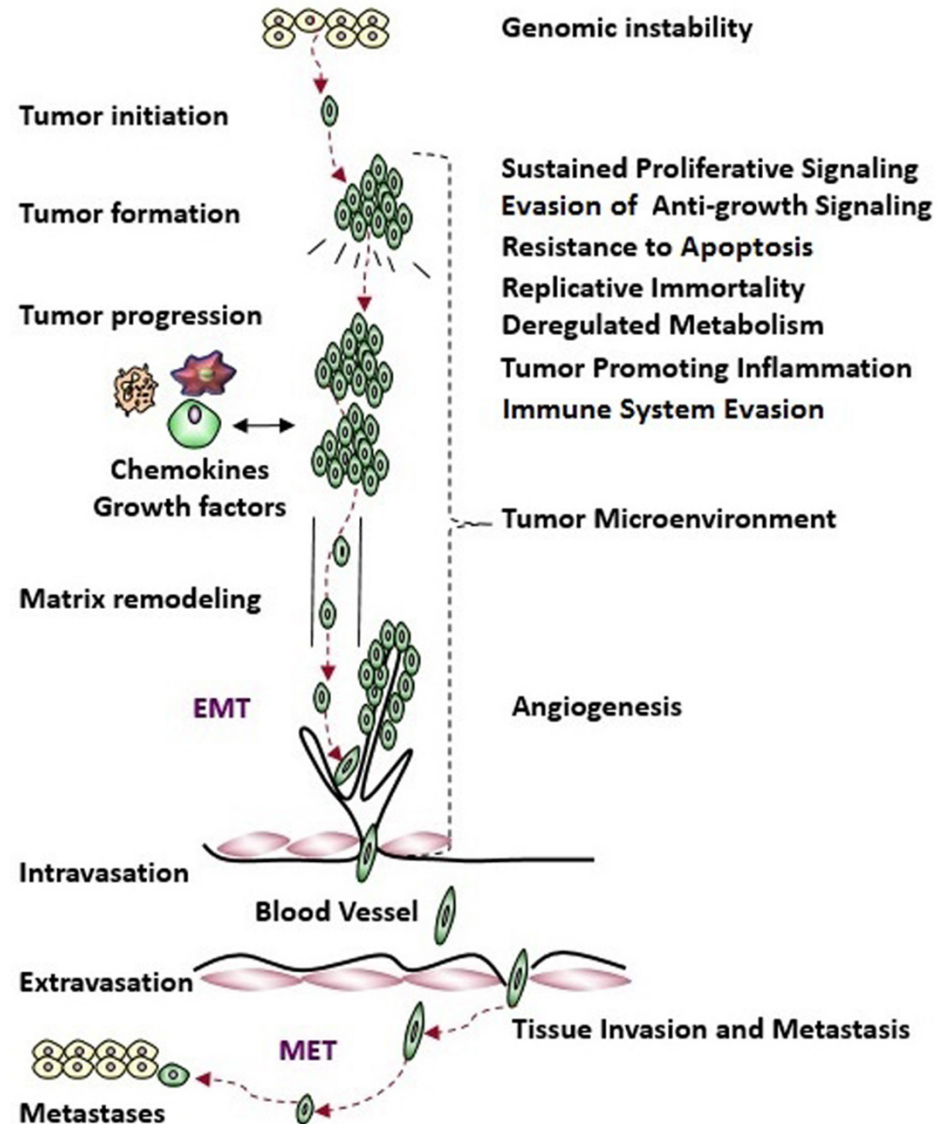
Variations....

- Genetic?
- Active screening by PSA?
- Food?
- Registration issues?

How to prevent prostate cancer?

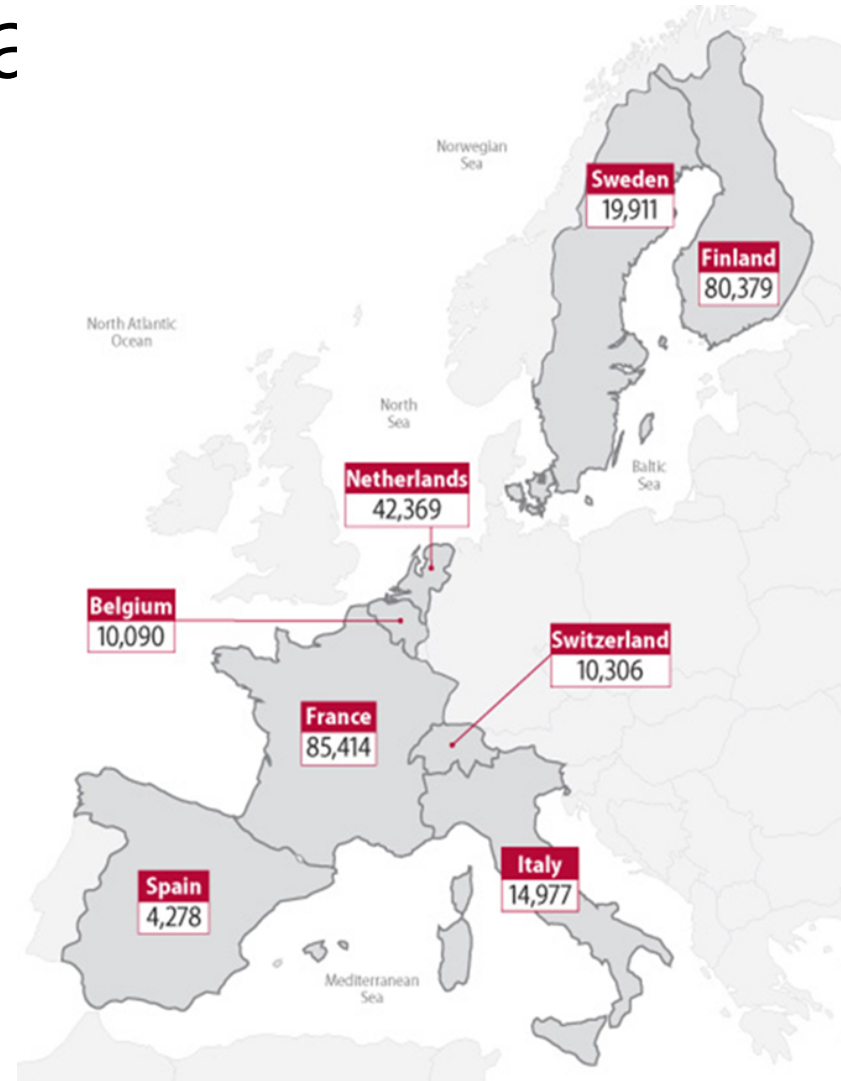
- Cancer is a genetic disease
- Genetic mistakes > genetic repairs
- The cause of Pca is unknown

- Primary prevention is untargeted
- Observations on diet suggest a role in prevention



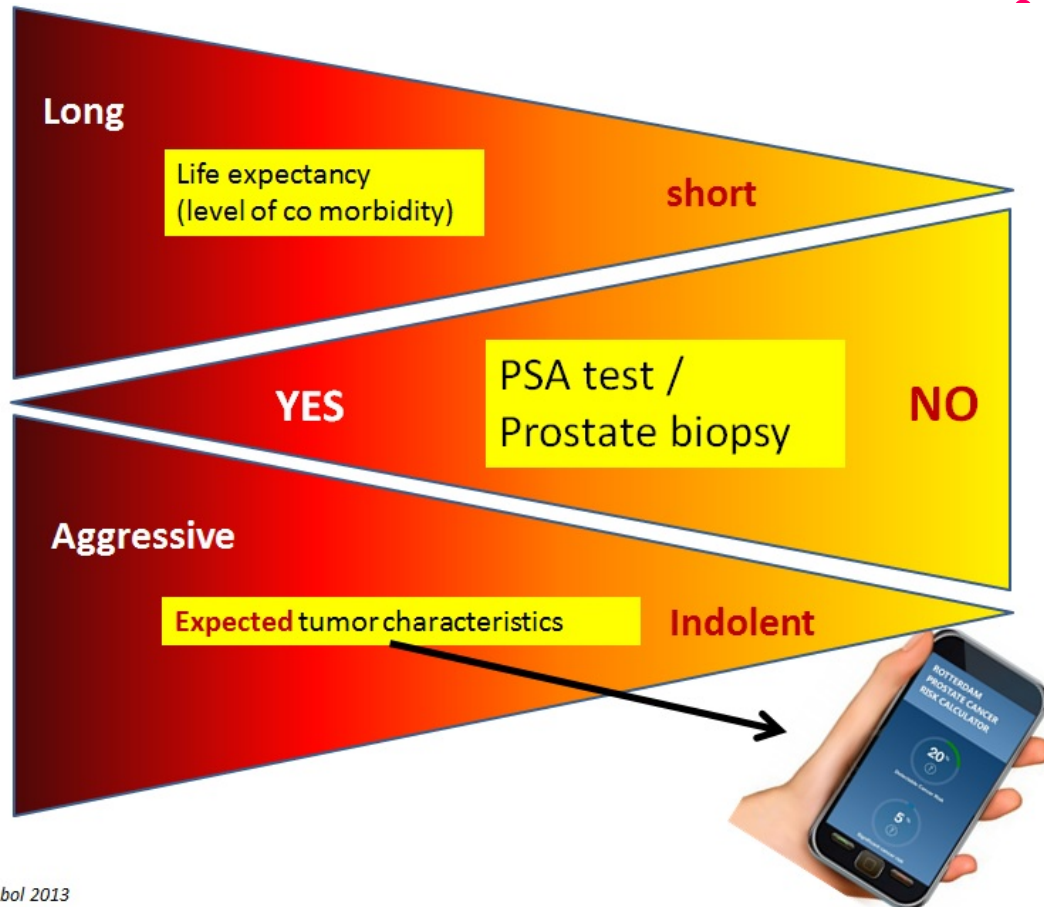
ERSPC screening Pca

- www.erspc.org
- Started in 1993 , men aged 50-74 yr
- N= 162,388 men age 55-69 yr for mortality analysis
- Intervention, randomized
- PSA test and if elevated PSA (≥ 3.0 ng/ml): a prostate biopsy
- Screening every 2/4 year up to age 70/74
- Reviewed cause of death
- 20-30 % mortality reduction
- **>50 % reduction of metastases**



It Ain't What You Do, It's the Way You Do It: Five Golden Rules for Transforming Prostate-Specific Antigen Screening

Andrew Vickers^{a,*}, Sigrid Carlsson^{b,c}, Vincent Laudone^b, Hans Lilja^{b,d,e}



- Golden Rule 3: **Don't biopsy without a compelling reason**

Now in app store: Rotterdam Prostate Cancer Risk Calculator

Pca screening is like a fire insurance: De

Koning, 2013

- If all men (55-74 years old) are screened every year, they lengthen life on average **29 days**, but live on average 558 extra days knowing they have cancer
- 1 % of men screened and treated enjoy the benefit of living **8 years extra**
- 21 % of men screened have Pca, and have an extra 7 years of knowing they have Pca
- Fire insurance: everybody pays, everybody gains a bit, but some gain a lot

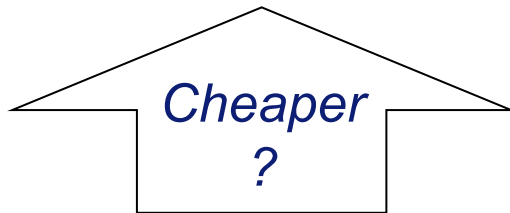
My dinner tonight.....



ProstaPizza®



...or...

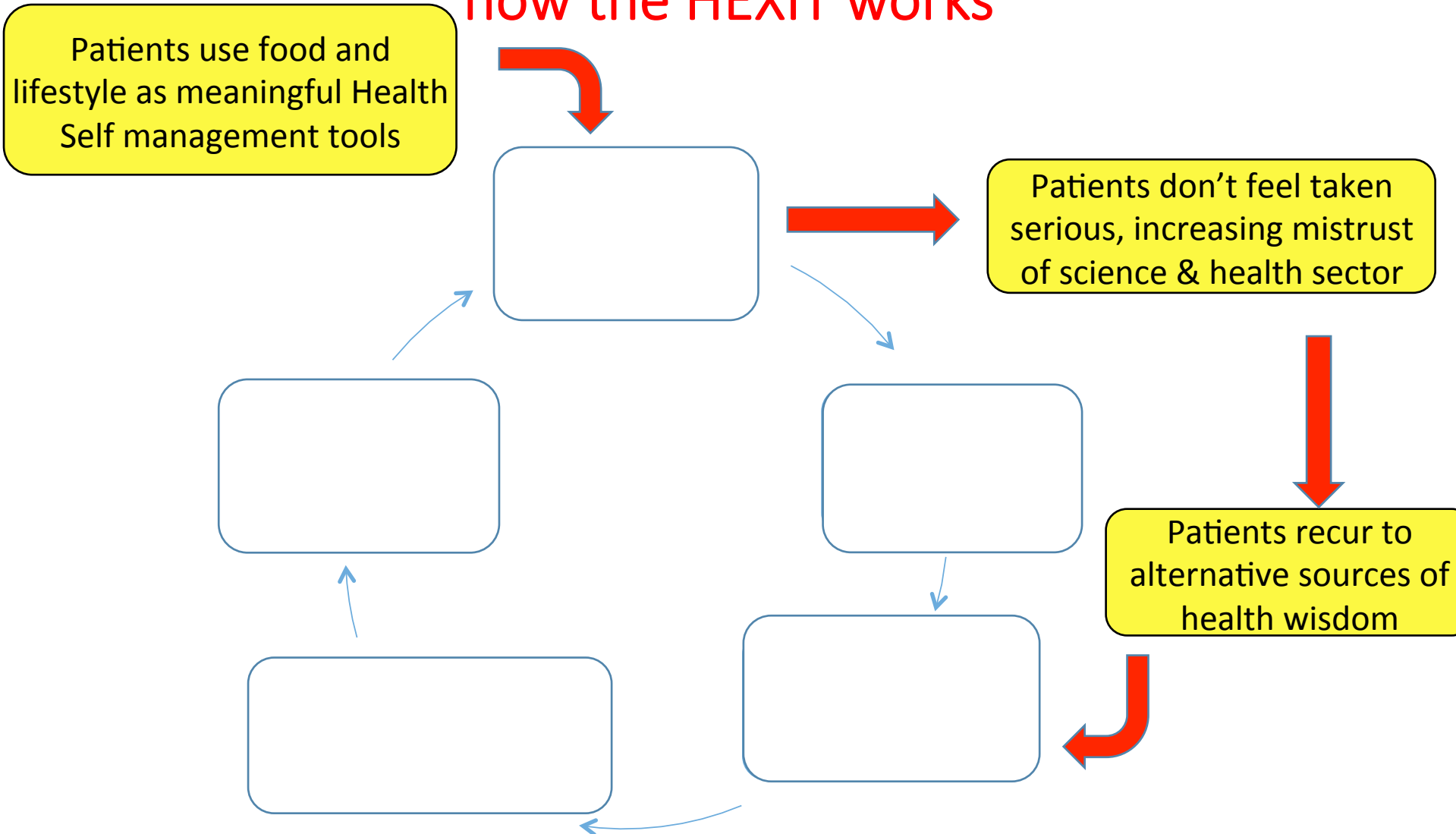


ProstateCancer, Food and Lifestyle

New businessmodels that enable health and
empower patients and citizens

Inspire2Live Annual Congress, Amsterdam, 1 Feb 2017

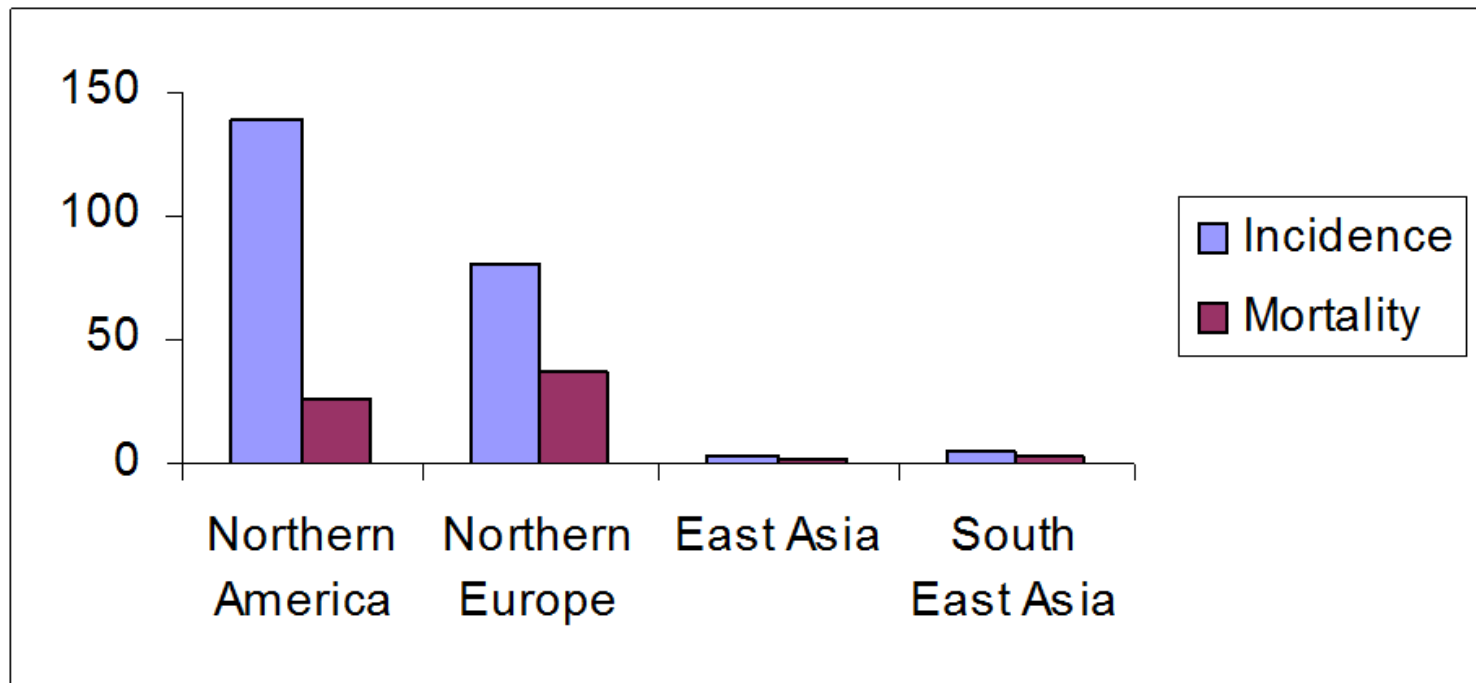
Health Selfmanagement by patients: how the HEXIT works



Cancer and prevention

Research shows: 30-50% of cancer is attributable to food and lifestyle (TNO studies)

Research suggests: a big impact of food and lifestyle on the incidence and recurrence of PCa (Kranse et al, 2015)



Savings are potentially tremendous

Chances of developing PCa for a Japanese man adopting a US Lifestyle is **4 times** higher than when adopting a Japanese lifestyle (Kranse et al, 2015)

Can we potentially reduce expenditures on PCa cure by a factor **4**?

Current PCa expenditures NL (2011): 254 million Euros

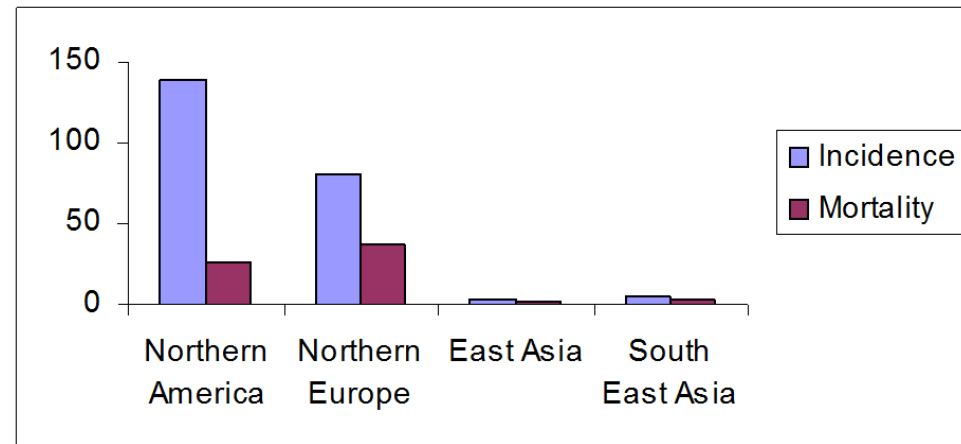
Let's assume we can half the cost

Potential savings at least 125 million Euros!

(let alone the **financial toxicity of PCa for the patients themselves** (€ 6-12.000 / yr, early retirement etc – Gordon et al, 2015)

If this could be possible, why don't we work harder to achieve it?

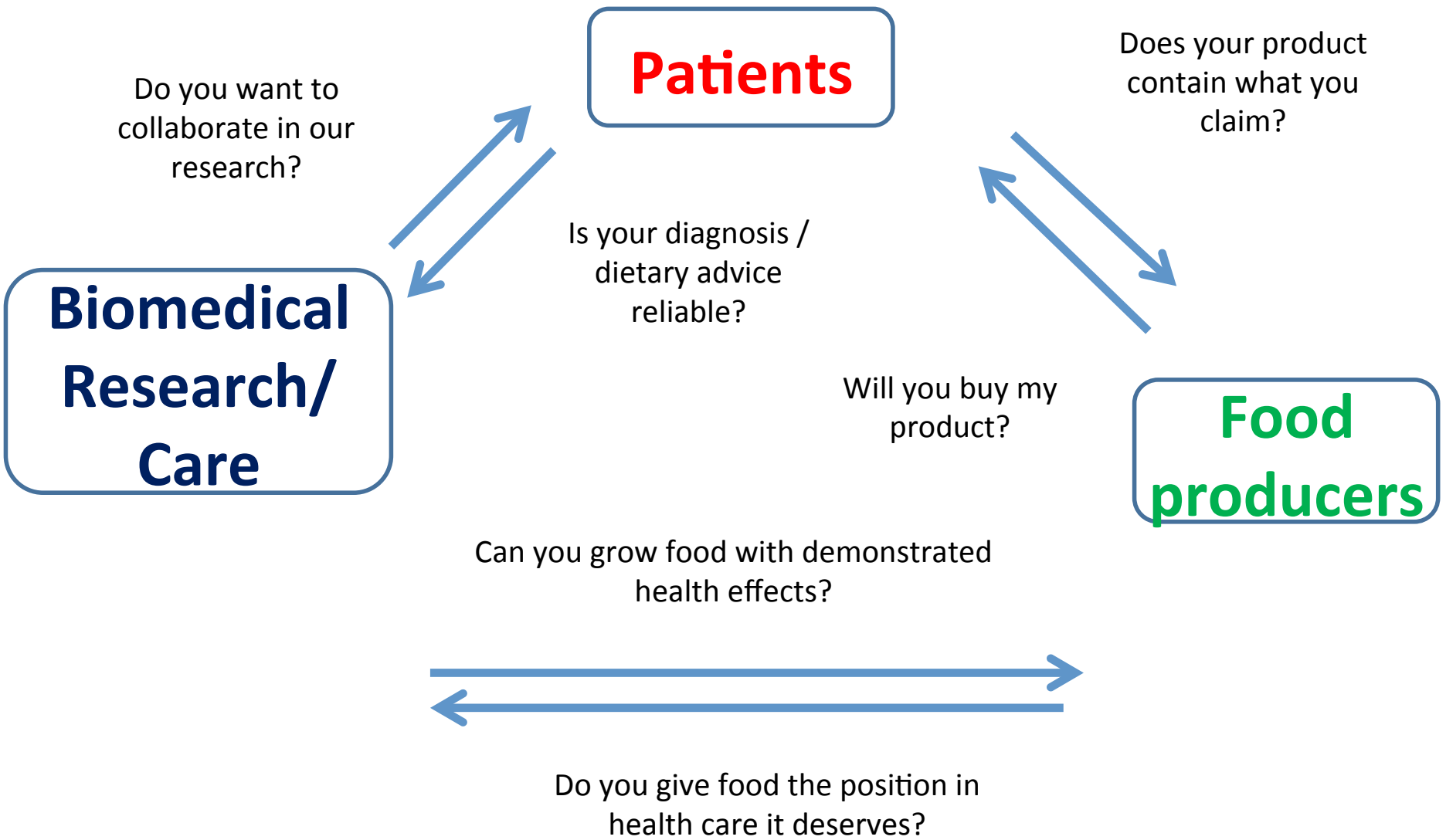
What, then, is the new business model that enables us to create this impact?





Coregroup of prostatecancer patients laying the foundation for the new foodpattern with PCa, jan 2016

To start with: a Multistakeholder challenge



We need another approach

- Deadlock demands us to find a new approach
- Creating breakthroughs by answering all of the questions in one go
- With all stakeholder that acknowledge that holding on to their doubts if something is true, will work etcetera, doesn't help anybody: not science, not patients, not food producers, not

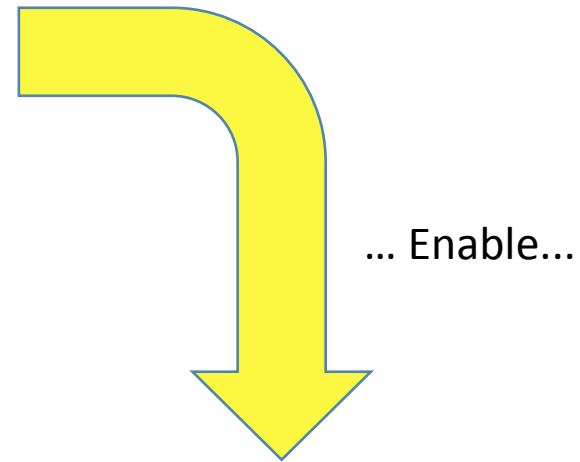
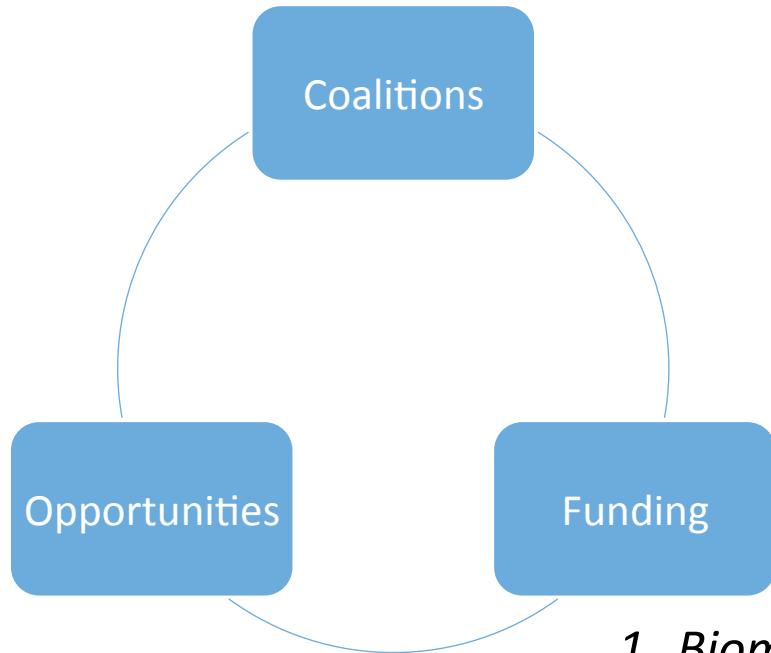


- **Living Lab ProstateCancer and Food**
- Creates a different model to organise the learning cycle:
 - while taking tangible steps
 - while creating new knowledge
 - While developing business perspectives
 - While generating valuable stuff for patients (and patients to be...)

Living Lab: organic growth (1)

- Living Labs develop step-by-step, shockwise
- Number of influencing factors is big
- Continuous chess on multiple boards
- Pragmatic development is in place; striving for perfection is unproductive
- Precondition: keep a clear focus on the final goal

Living Lab: organic growth (2)



1. *Biomedical research (formal and Citizen Science)*
2. *R&D on plant nutritional composition and growth protocols*
3. *Out reach to target groups*
4. *Patient / Customer feedback*
5. *Diversity of food- and lifestyle coaching strategies*
6. *Knowledge d'ment on Personalised Food*
7. *Ongoing d'ment of foodpattern for PCa*
8.

Living Lab: organic growth (3)



A new fresh food basket for prostate cancer with special – 2017 research pilot in Almere

Living Lab Partnership Ecosysteem

- **'I Choose My Food for My Health'**

Core partners

- Erasmus MC (Prof. Chris Bangma) / ProstaatPartners
- Horticultural producers Westland – Vers+ (Rijk Zwaan, Koppert Cress, Best Fresh Group)
- Platform Patients and Food / Inspire2Live

Supporting partners

- Municipalities of Rotterdam, Almere
- Stichting Voeding Leeft (coaching expertise)
- InnovationQuarter / Ministry of Economic Affairs / Habitus (procesarchitects and network brokers)
- DRIFT (Dutch Research Institute For Transitions - Erasmus University)
- Some Universities of Applied Science

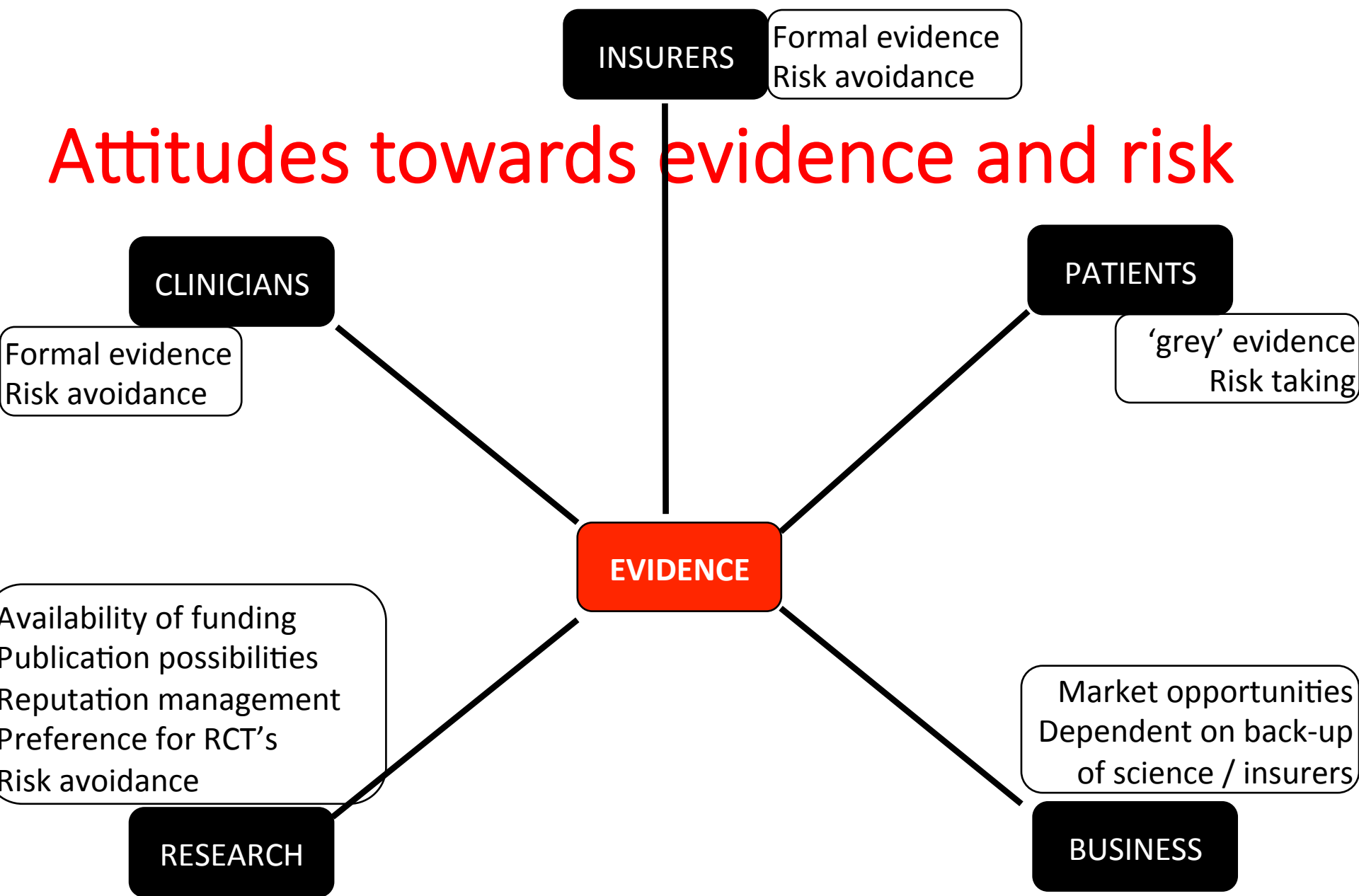
A transformative Business model

- We have a working mechanism to generate the appropriate knowledge and products

UT

- We need a transformative business model to get it working *fast*

Attitudes towards evidence and risk



Goal of the working session

- What are the bottlenecks make progress to support self management by patients also in conditions where evidence is not 100%?
- What is needed to tackle these bottlenecks?
- How would this transformative bussinessmodel look like?

Thanks!

Gaston Remmers

T: 00-31-6 – 41 37 41 02

E: g.remmers@habitus.nu