KOPPERT CRESS

Architecture Aromatique
Urban Farming
NOW
How to feed a city?
with
1 million people
of which

150,000 obese
More than 500,000 overweight
(ideally) consuming 200,000 kg vegetables a day is 2,500,000 tomatoes.
and 220,000 kg meat a day is 730 cows.
throwing 35% a day away is 50,000 garbage bags
we need 3,650 hectares
to produce that amount of vegetables in the city
but even more to produce that much meat

average of 91,250 hectares
to feed this city

we need 20,000 hectares of land

at 300 euros per square meter

is an investment of at least 60 billion euros
so..

urban farming = charming

but no solution to feeding the city of the future
Netherlands, the greenest city in the world

SUSTAINABLE URBAN DELTA
An initiative by Meiny Prins
Holland is not a dense country, but an empty city.

Nederland is geen vol land, maar een lege stad.

New York
22 million

Los Angeles
17 million

London
13 million

Paris
12 million

Randstad
8 million

Ruhrgebiet
11 million

Chicago
9 million

Nederland
16 million

San Francisco
7 million
“Let thy food be thy medicine and thy medicine be thy food.”

HIPPOCRATES
the Green Pharmacy

lycopene, ellagic acid, quercetin, hesperidin, anthocyanidins

lutein/zeaxanthin, isoflavones, EGCG, indoles, isothiocyanates, sulforaphane

alpha-carotene, beta-carotene, beta cryptoxanthin, lutein/zeaxanthin, hesperidin

resveratrol, anthocyanidins, phenolics, flavonoids

EGCG, alicin, quercetin, indoles, glucosinolates
We have to ‘scientifically’ prove the Green Pharmacy
Let’s change the way we look at fresh food and health
We can do it

Combine medical research

with plant research for fresh produce
Our focus: sulforaphane levels

<table>
<thead>
<tr>
<th></th>
<th>mg per 100 grams</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broccoli (fresh):</td>
<td>0.2</td>
</tr>
<tr>
<td>Broccoli (stir fried):</td>
<td>0.1</td>
</tr>
<tr>
<td>Broccoli (boiled):</td>
<td>0.01</td>
</tr>
<tr>
<td>1 sprout BroccoCress®:</td>
<td>0.13 mg</td>
</tr>
</tbody>
</table>
13527 published studies on broccoli
Only 4 conducted on humans (human intervention studies)
New measuring techniques
LUMOS: Spectrometry

Sulforaphane level is visible in blue/green area
Ag & Food Tech Safari Silicon Valley
Quantified Self
E-health
Quantified Planet (big data)
We have to do it

In order to reduce health costs

To promote healthy ageing
We need a masterplan to help new generations with healthy ageing
Diabetes

WORLD 592M people living with diabetes in 2035

WORLD 382M 55% increase

AFR 109.1%
MENA 96.2%
SEA 70.6%
SACA 59.8%
WP 46%
NAC 37.3%
EUR 22.4%

2013 2035
HAZARDOUS FACTORS OF CANCER

- INCORRECT FOOD: 30%
- SMOKING: 30%
- HERITABLE FACTORS: 15%
- Other: 1%
- Pollution: 2%
- Drugs: 2%
- Ultra-Violet Radiation: 2%
- Preponderate, Lack of physical exercise: 5%
- Alcohol: 3%
- Professional exposure to radiation: 5%
- Infection: 5%
HOW CANCER DEVELOPS

INITIATION
- chemical products
- radiation
- viruses

PROMOTION

PROGRESSION

CANCER

DISSEMINATION

1 - 40 YEARS

Damaging of DNA

Activation of carcinogenic ingredients / inactivation of suppressors

Clinical demonstrable tumours
The function of cancer-resistant ingredients

- **Carcinogenic ingredients**
  - Ultra-violet radiation
  - Cigarettes

- **Detoxification**
- **Elimination**

**Initiation (days)**
- Free radicals
- Normal cell

**Promotion (1 to 40 years)**
- Initiated cell

**Progression (1 year and more)**
- Cell in pre-stage of cancer
- Cancer cell angiogenesis
- Malicious tumour

**Blocking the activity of the carcinogenic ingredients**
- Sulforafaaan
- Indol-3-carbinol
- Diallylsulfide
- Ellaginezuur

**Blocking the promotion and progression of cancer cells**
- Curcumine
- EGCg
- Genisteine
- Resveratrol
- Lycopene
- Anthocyanidinen
- Ellaginezuur
- Omega-3 veturen
- Limoneen
- Proanthocyanidinen
Trend

Increase in average healthcare spending

- The right food (choice) can prevent a large scale of the lifestyle related diseases

- Obesity 95%
- Type 2 diabetes 80%
- Heart and vascular diseases 40%
- Cancer 50%
We are doing it
Reverse Diabetes Type 2

80% success rate
bètacaroteen  
$C_{40}H_{56}$
We need a stimulator

**FOOD**
Ministry of Agriculture

**HUMAN**
Ministry of Fresh Food & Health

Fresh Food is not just an economic affair
Fresh Food is HEALTH!
AAN TAFEL! TIEN VISIES OP DE TOEKOMST VAN ONS VOEDSEL

Het voedselsysteem moet anders, eerlijker voor de boer, transparanter voor de consument.....

Rob Baan

"Let's change the way we look at fresh food and health": laten we op een andere manier naar gezondheid en voeding kijken. Rob Baan benadrukt dat de medische wetenschap zich vooral richt op de genezing en reparatie van ziektes, terwijl er aan de preventie kant zoveel ongelofelijk meer te winnen valt.

Ten aanzien van voeding liggen de nadruk op voedselveiligheid en kostprijs. Hierbij wordt volkomen voorbij gegaan aan het nut van echt voedsel voor de gezondheid. Hij zou graag een focus zien op voedselinhoud. Het oorspronkelijke voedsel van de mens is planten eten, aangevuld met een beetje dierlijk eiwit. Hier zijn we compleet van weggeraakt met
Restaurant derives from restore

[rest·tau·rant (rst-ränt, -tr-nt)n. from present participle of restaurer, to restore, from Old French restorer; see restore: to bring back to or put back into a former or original state (Medical Definition of restore)]
THE REDISCOVERY OF THE DUTCH KITCHEN
where vegetables are leading
80% VEGETABLES
20% ANIMAL
100% TASTE
APPLIED INNOVATION
MODERN TECHNIQUES
CULTURE
HEALTH
Green Deal
Sustainable Food Consumption
Teach the Teacher taste lessons for children
Incubator
startup
crowdfunding
Everything comes together on the plate
How can we feed 9 billion people?
How can we move away from an agricultural policy towards a food policy?
How can we focus on prevention instead of healing?
How can we give new meaning to ‘Going Dutch’?
Everybody knows

Nobody does
Fresh food