



From Food Waste to Innovative Bio-Based Products

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From Food Waste to Innovative Bio-Based Products

René Hartman



InnovatieWerkplaats:

Creativity & Innovation > competitive edge

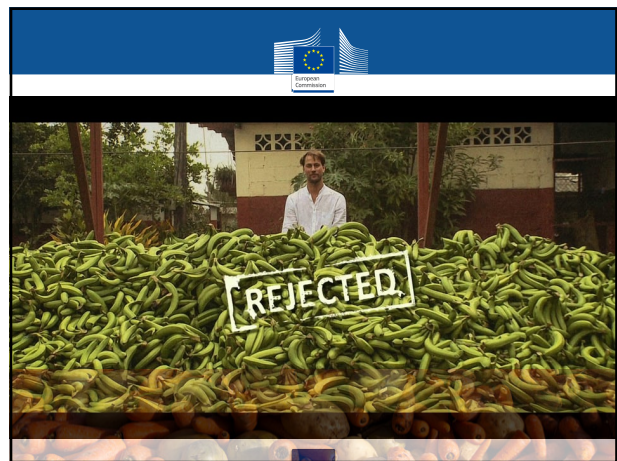
Education and Workshops

TU Delft/Industry/Consultancy



Focus:

to outline the potential of the food waste streams from food and beverages industry sectors to produce added value bio-based products





Programme:

Inspiration 4 presentations

Ideation it's your turn now!



Focus:

to outline the potential of the food waste streams from food and beverages industry sectors to produce added value bio-based products



Focus:



Inspiration:

4 presentations from 4 countries:

1. Johanna Buchert – Natural Resources Institute
2. Caroline Strain – Scottish Enterprise
3. Andrés Pascual – Bio-Energy Department AINIA
4. Nicola Pizzoli & Diego Torresan - Pizzoli



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Programme:

Inspiration 4 presentations

Ideation it's your turn now!





Ideation:

How can we boost the conversion of food waste?

- 6 Questions
- 4 Groups
- Presentation of ideas/insights/opportunities



Who is who:

Who is sitting next to you?

What is his/her favourite food?

Why is your neighbour in this workshop?



Picture: leanpath



Programme:

Inspiration

4 presentations

Ideation

it's your turn now!







Inspiration 3

Andrés Pascual

Environmental & Bio-Energy Department
AINIA



Inspiration

4



Inspiration 4

Nicola Pizzoli & Diego Torresan

Pizzoli & Bio-on Project



Inspiration



Ideation



Inspiration >>>>> Ideation

Erik op ten Berg



Inspiration >>>>> Ideation

1. How can we speed-up a successful **market entry** of bio-based products?
2. Which **opportunities** do you see for market-disrupting technological innovations?
3. How do you see the 'food waste to bio-based products' **value chain** in 2030?





Inspiration >>>>> Ideation

- 4. How can the **EU support** the business case of 'food waste to bio-based products'?
- 5. How can we **bridge the gap** between research and market entry?
- 6. How can we, as frontrunners, **seduce the rest of the industry** to spend more time and effort on the conversion of food waste?



Inspiration >>>>> Ideation

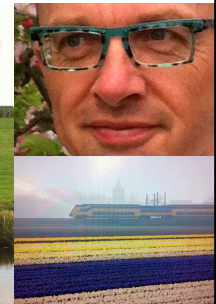
Erik op ten Berg



Erik op ten Berg



MSc in Innovation Management
MSc in Applied Creativity
Creative Problem Solving Expert
Change Professional



1541 CEO's

complexity innovation

leadership creativity

IBM: Capitalising on Complexity



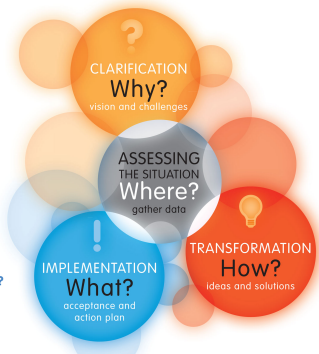
Creative Problem Solving


International Center for Studies in Creativity Buffalo State University


do we need to further clarify this situation?

Have we explored a sufficient number of ideas?

Are we committed to a solution to be implemented?








creativity is the art of breaking patterns and habits

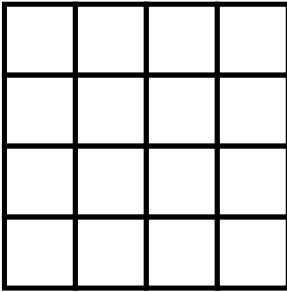



Elements of Flow





How many squares do you see?




MENTAL LOCKS

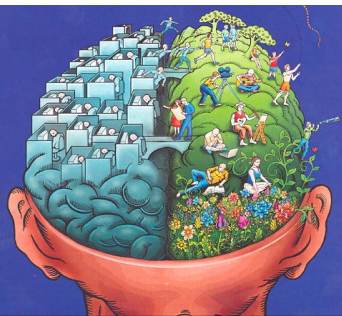


10 Creativity Killers (Roger van Oech)	
The Right Answer	That's Not My Area
That's Not Logical	Don't Be Foolish
Follow the Rules	Avoid Ambiguity
Be Practical	To Err Is Wrong
Play Is Frivolous	I'm Not Creative

from: A Whack on the Side of the Head
Roger van Oech



WHOLE BRAIN THINKING

<p>LEFT LOGICAL</p> <ul style="list-style-type: none"> linear number lists words series details rational serious logical analysis 		<p>RIGHT CREATIVE</p> <ul style="list-style-type: none"> spatial symbols pictures colours parallel links intuition humour fantasy synthesis
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THE SPINNING LADY







**MINDS ARE LIKE
PARACHUTES**

**THEY WORK BEST
WHEN THEY ARE
OPEN**

Frank Zappa



CREATIVE POWER SKILLS

- postponing judgment
- considering alternatives
- sharp observation
- flexible association
- rich imagination





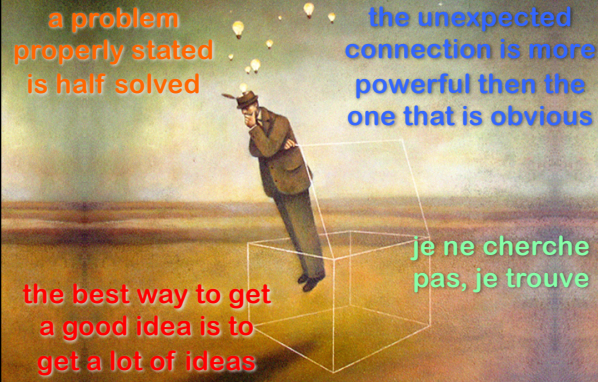


*if you always
do what you've
always done
you will always
get what you
have always
got !!*




a problem
properly stated
is half solved

the unexpected
connection is more
powerful than the
one that is obvious



Je ne cherche
pas, je trouve

the best way to get
a good idea is to
get a lot of ideas



**creativity is looking at the ordinary
and seeing the extraordinary...**




Short Coffee Break!



**From Food Waste
to
Innovative
Bio-Based Products**



Inspiration >>>>> Ideation

1. speed-up market entry ?
2. disrupting technological innovations ?
3. value chain in 2030 ?
4. EU support business case ?
5. gap research-market ?
6. seduce industry ?




Inspiration > Ideation > Implementation

www.innovatiewerkplaats.nl

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**Thank You
for
Your Ideation!**