

From Innovations to solving Challenges

Ronald Zwart PhD MBA



CROP Innovation & Business

02 - 04 April 2017, Amsterdam

The Biomass Value Chain



How R&D-insights lead to new products and solutions that help solve the big societal challenges



Conditions to Success

Solving the Challenges

- How well do we know the challenge?
- Where or when is the solution relevant?



Example: Palm Oil

Utilize biomass fractions for biobased products



Source:  MPOC



Biomass yield

- 10% is palm oil
- 90% is other: EFB, OPF, PKS, MF, POME



Challenges

- Increase revenue per hectare
- Reduce biomass waste problem



Solution

- Biorefinery

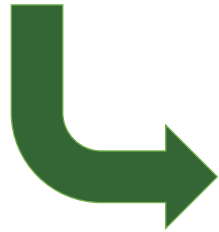


New Problem

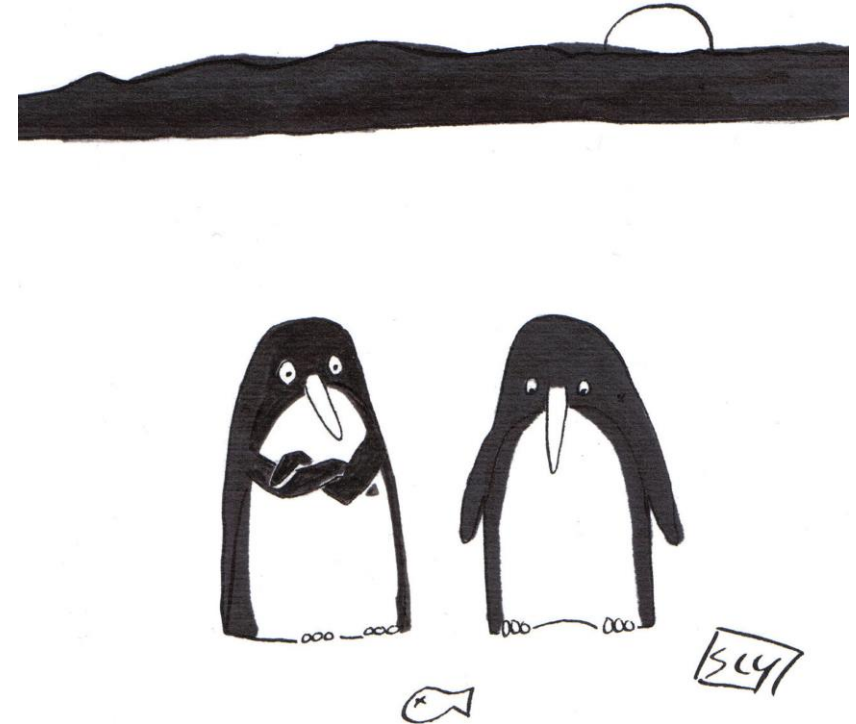
- Palm oil yields!

Conditions to Success

Products and Solutions

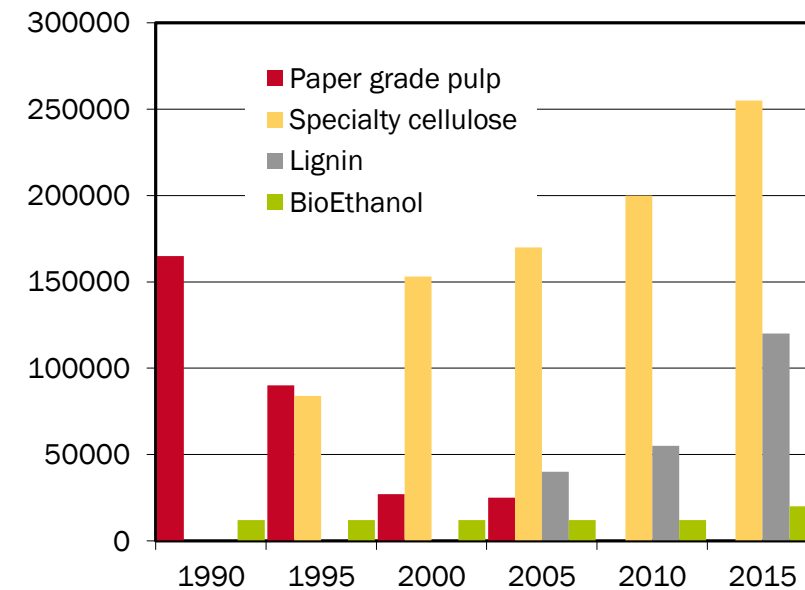


- What solutions does the market want?
- What is the market?



'If you really loved me you would have bought me flowers.'

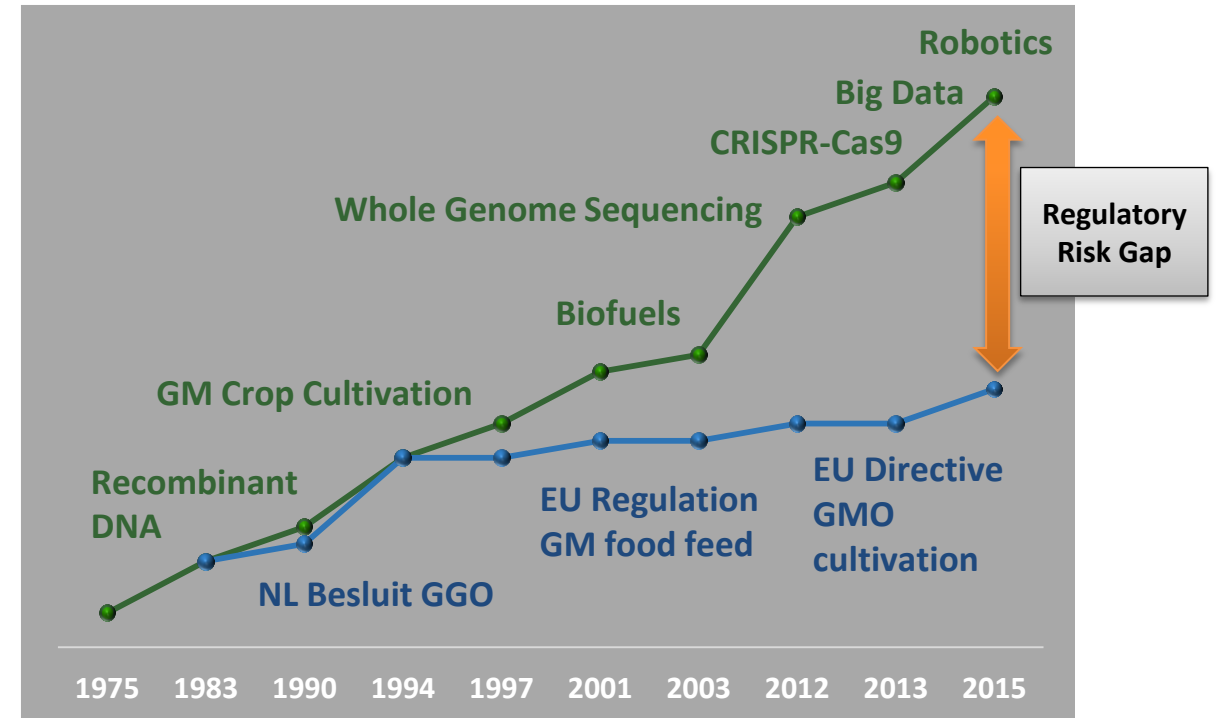
Example: Pulp and Paper



Conditions to Success

R&D Insights

- What are the external risks?



The Biomass Value Chain



How R&D-insights lead to new products and solutions that help solve the big societal challenges



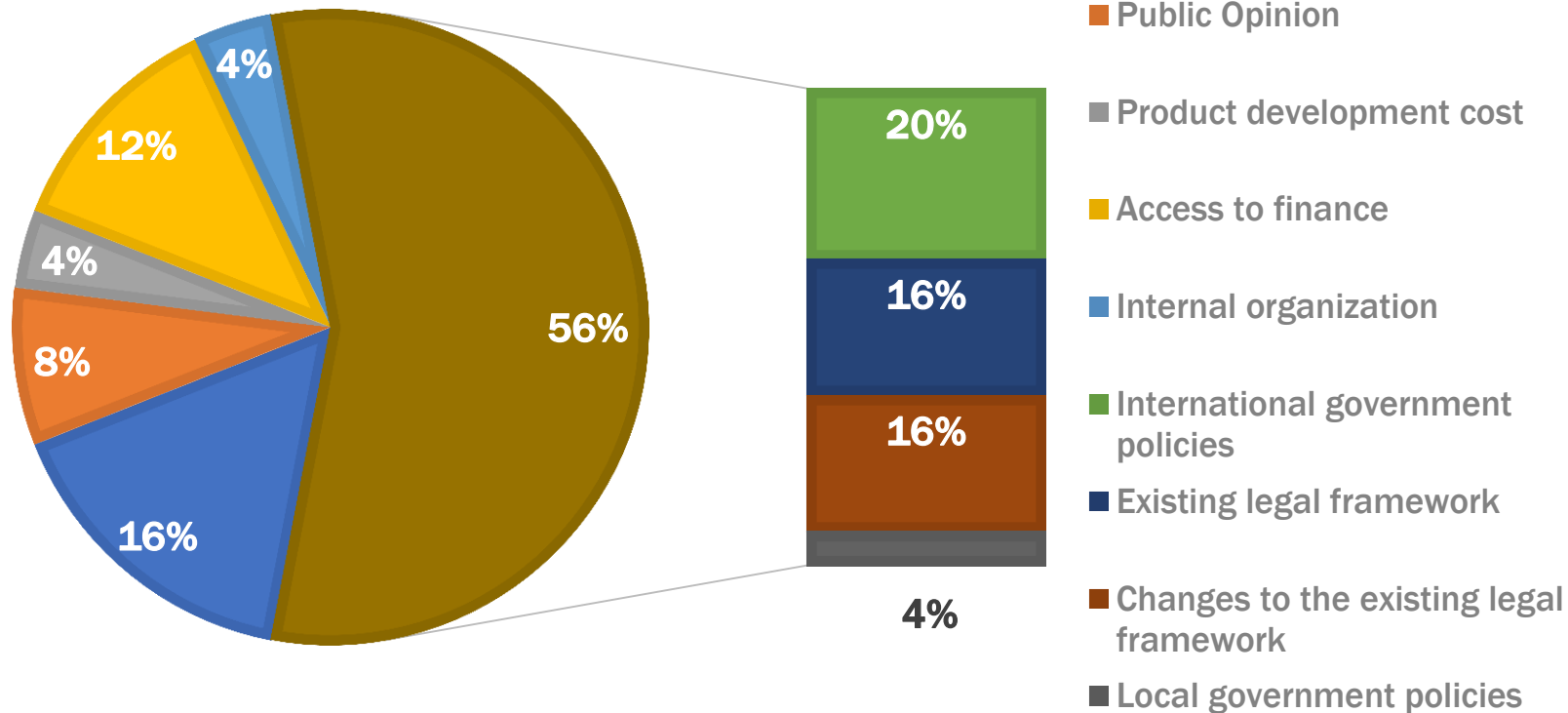
Survey

- **Identify possible gaps and provide valuable insights to optimize R&D and product development strategies.**

Survey

In your view, what is the most significant risk to your R&D and product development strategies?

Assess R&D Risks

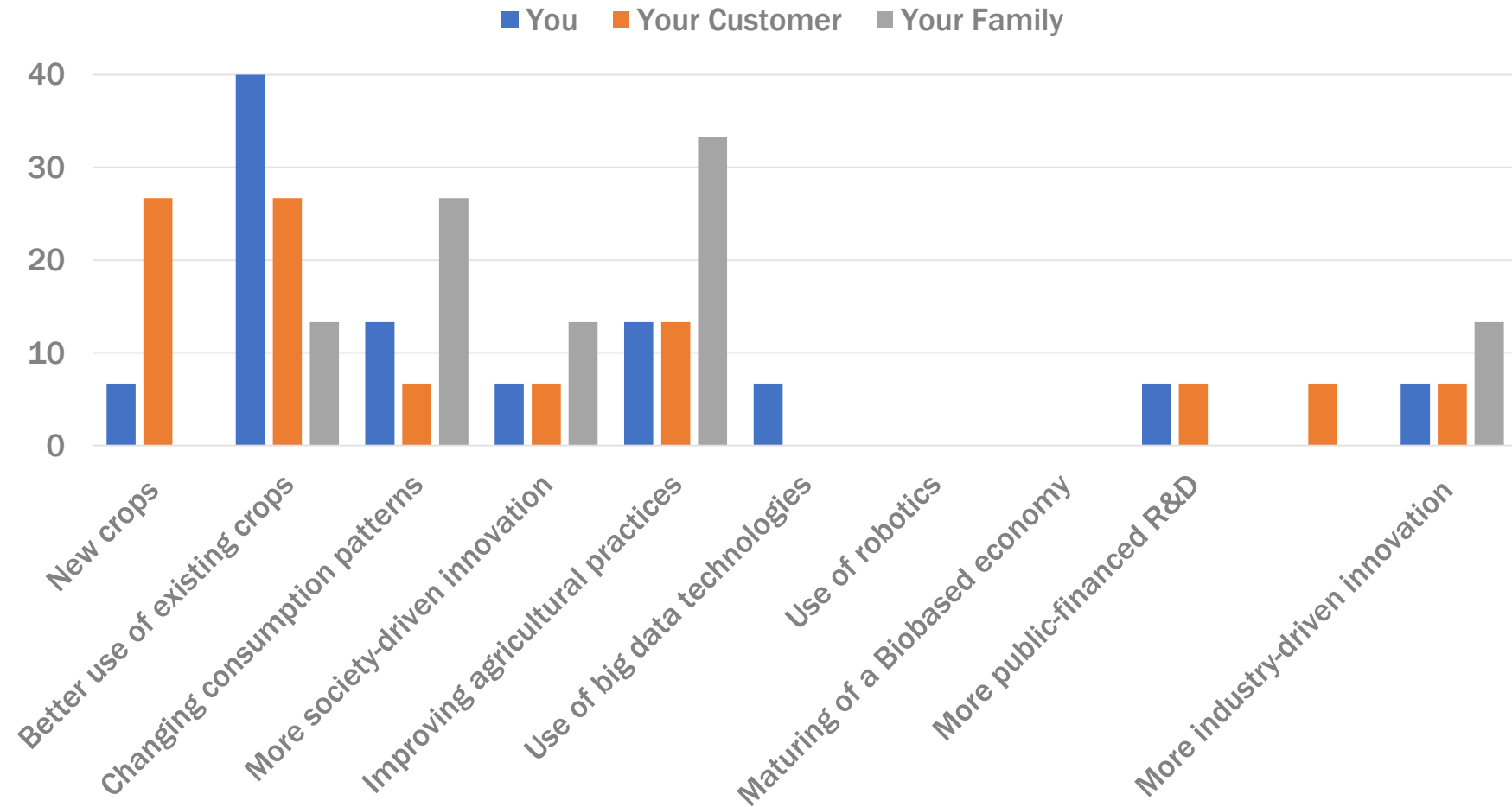


Survey

What solution do you - your customer – your family rank as most relevant for Zero Hunger?

Know the market

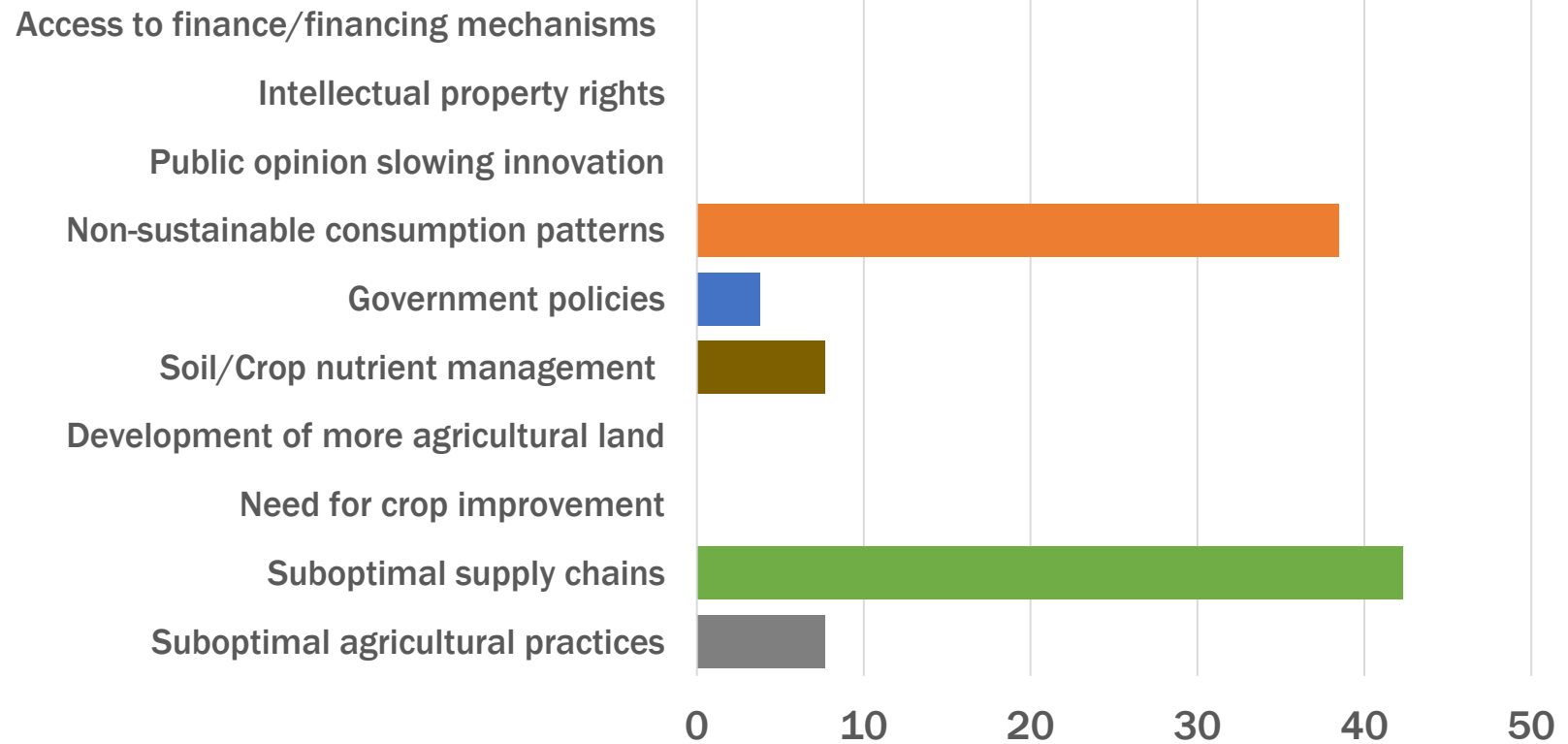
Crop breeding and
crop research:



Survey

Understand the
Challenges

In your view, what is the most important challenge that needs to be overcome in order to reach Zero Waste?





Thank you

www.BiotechnologyExpertGroup.com
