



New challenges for IPM research in horticulture

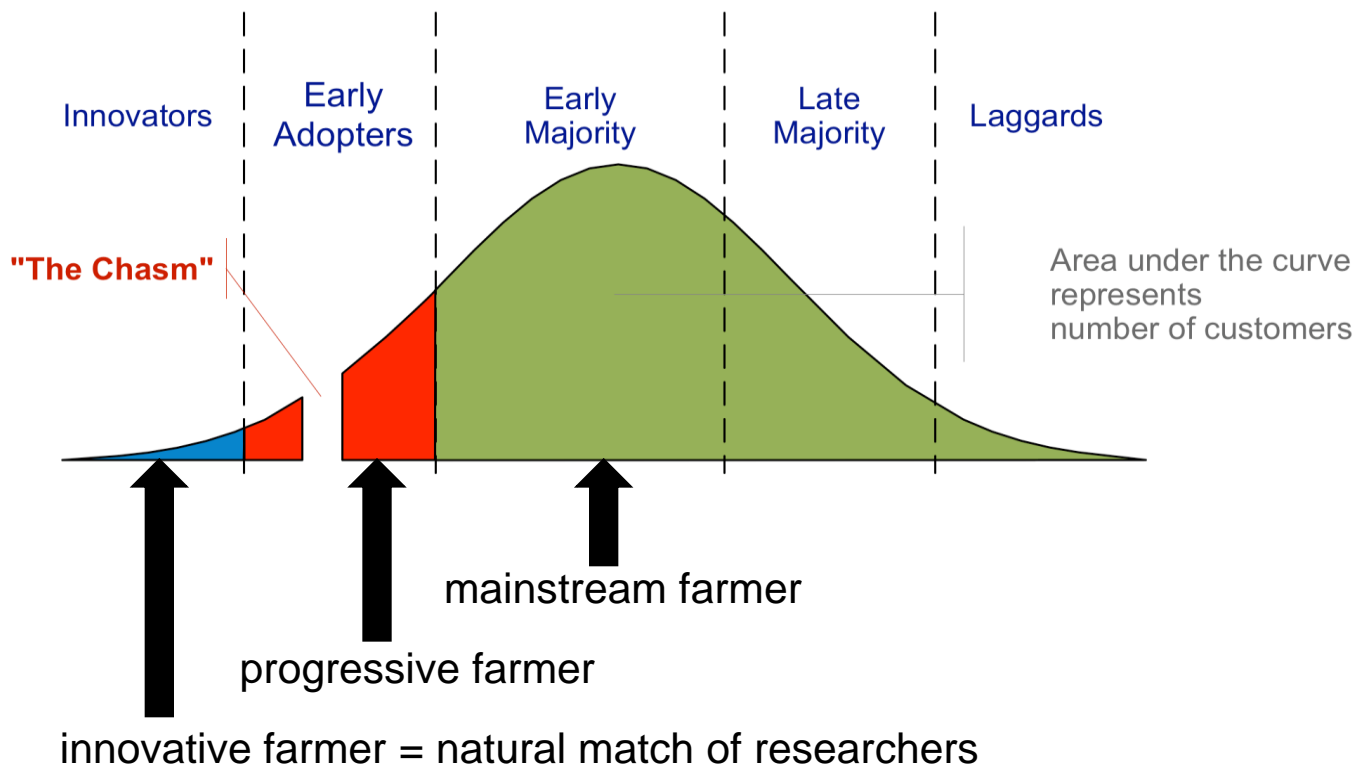
Jan Buurma
Poznań, 14 January 2015

Contents

- Technology Adoption Lifecycle
- Findings New Cultivation (NL)
 - Early adopters
- Extrapolation to IPM context
- Economics of top-quality products
- Definition of new challenges

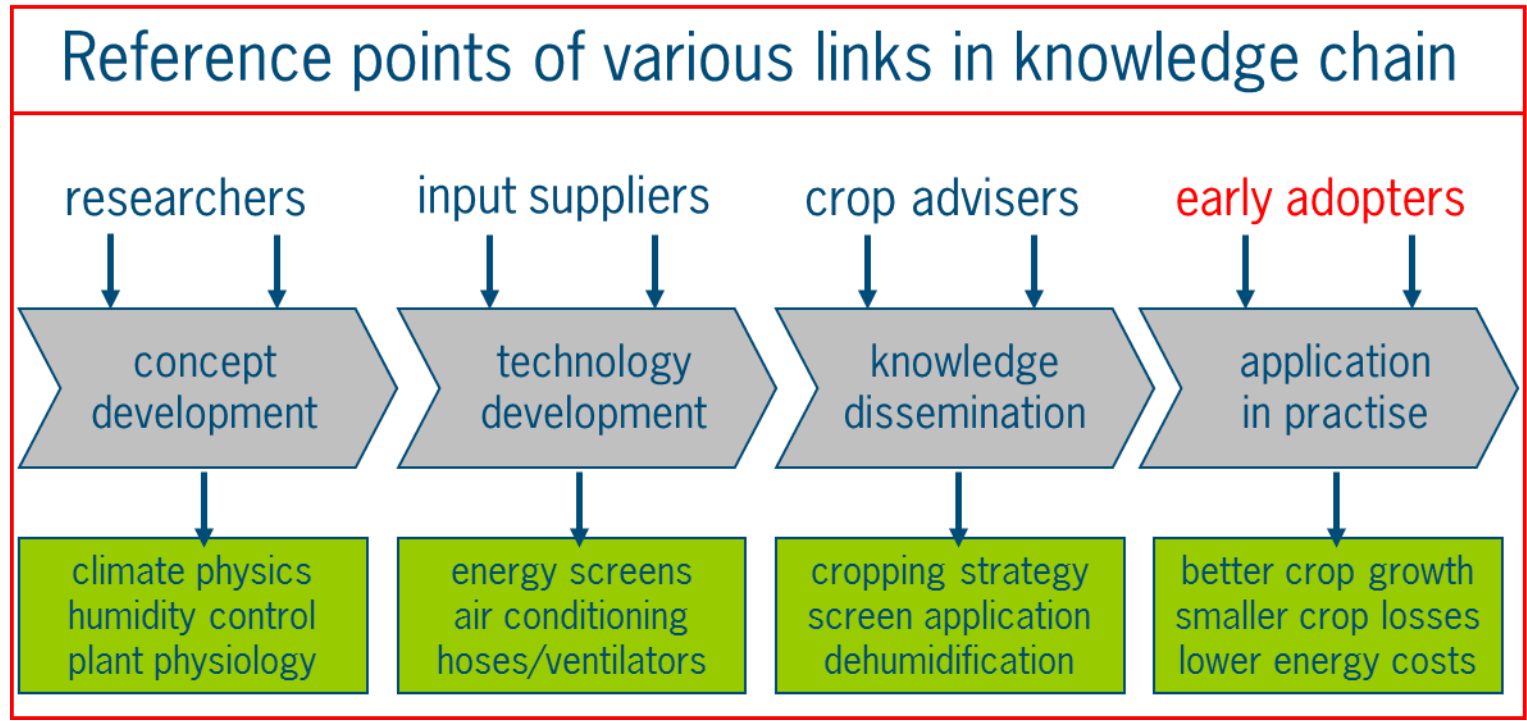
Technology Adoption Lifecycle

Geoffrey A. Moore (1991) Crossing the chasm



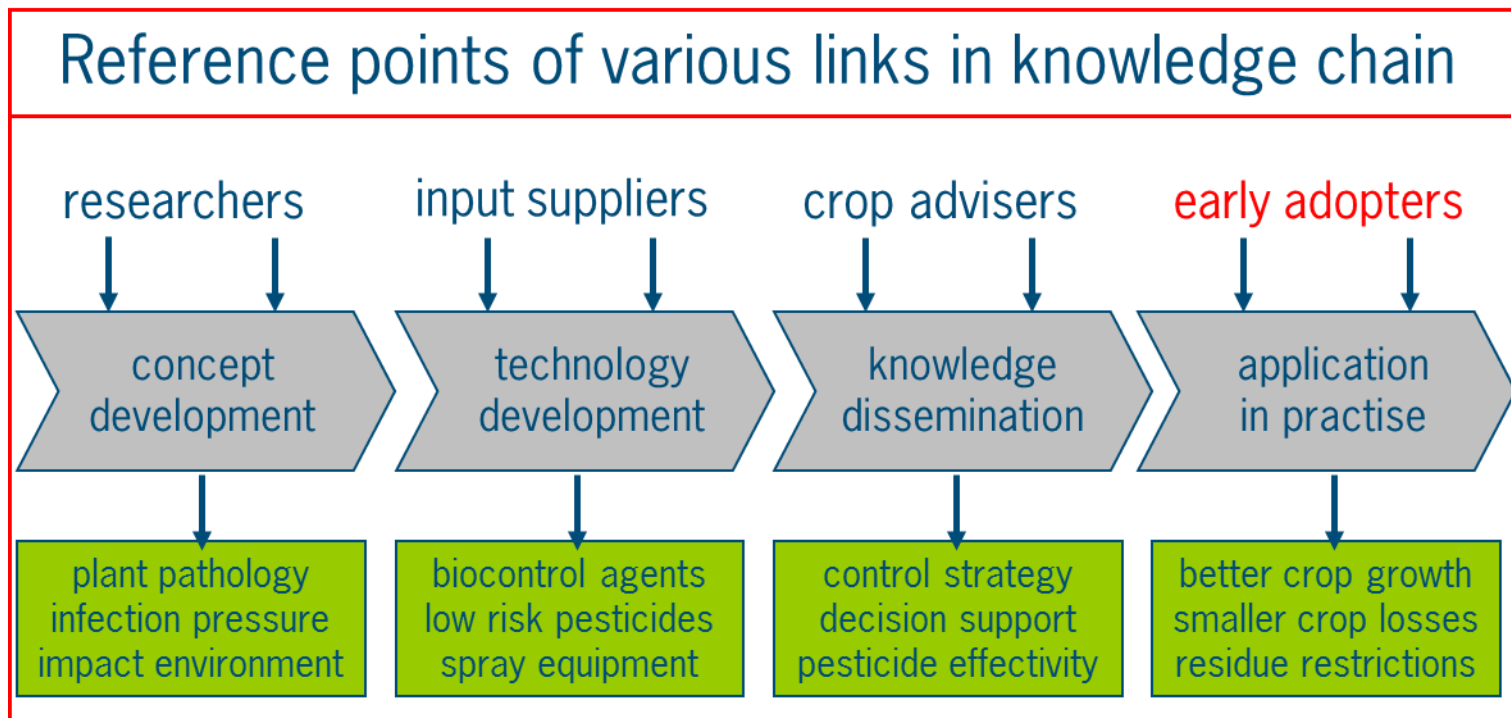
Message: farmers on right-hand side of "The Chasm" have other interests

Findings New Cultivation



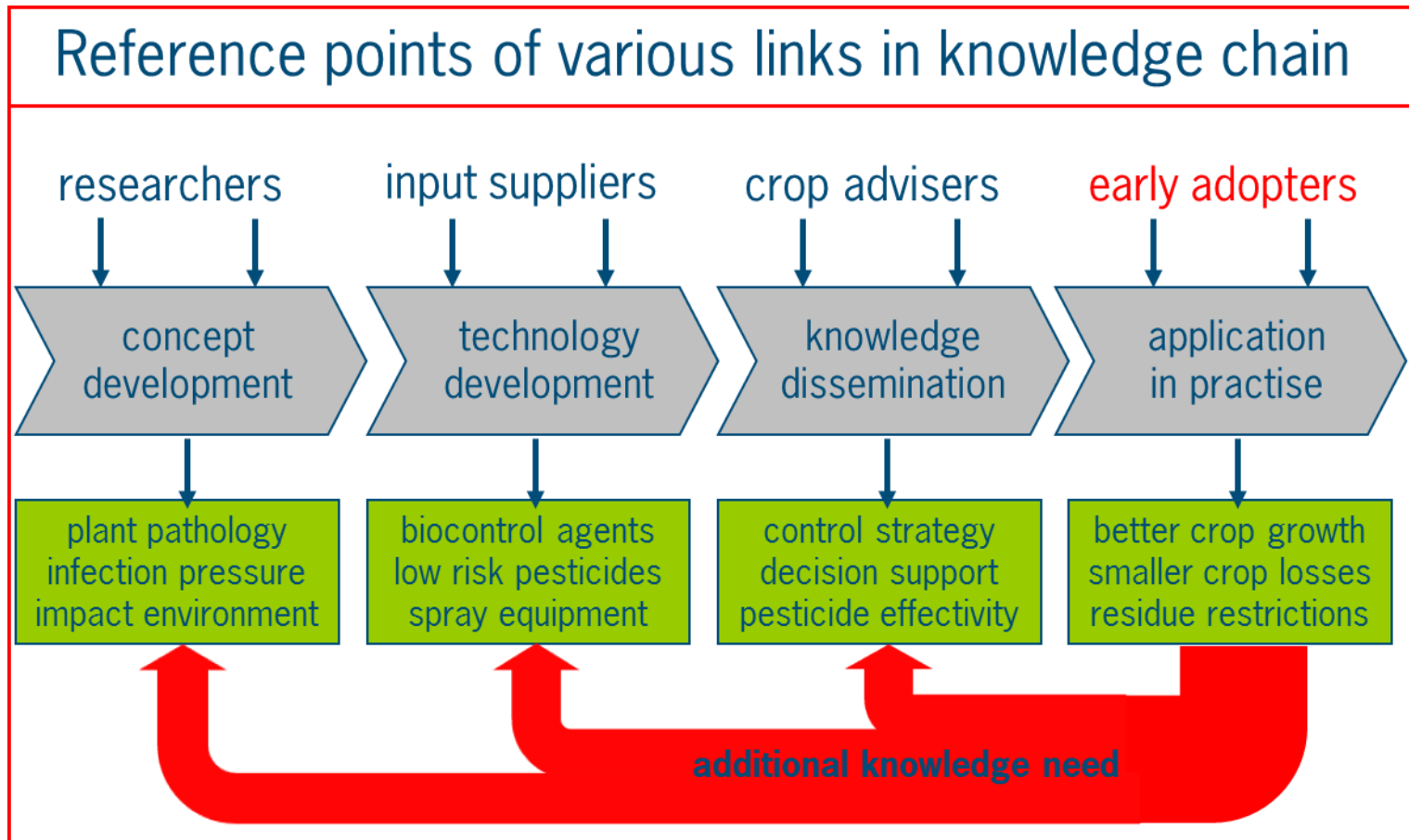
Lesson: each link in knowledge chain has his own reference points.
Message: Knowledge still needs to be adjusted to farmers' interests.

Extrapolation to IPM context



Lesson: end-users of IPM have other reference points than research.
Technology push strategy may incite aversion of farmers/growers.

Challenge for future IPM



Targets product development


Surveys PURE – WP7, tomatoes

- Taste and flavour
- Physical quality
 - Type/cultivar
 - Shelf life
 - Colour
 - Packaging
- Low residue level



IPM in product development


 **Germany**




- Maximaal 33% MRL norm
- Maximaal de ARfD per actieve stof, som < 100%
- (Kaufland) laagste telt: EU of oudste Duitse norm max 70% ARfD maximale som van 100%



- Maximaal 70% MRL per actieve stof
- Maximaal de ARfD per actieve stof







- Maximaal 5 werkzame stoffen
- Maximaal 80% som MRL's
- Maximaal 80% som ARfD's




- Maximaal 70% MRL
- Maximaal 70% som ARfD's
- Maximaal aant. werkz. st. per gewasgroep (3,4,5)



- Maximaal aantal werkzame stoffen per gewasgroep (3,4,5)
- 70% per act. stof en Max. 80% som MRL's
- Maximaal 80% som ARfD's



- 70% MRL
- 50% Gärtners Beste



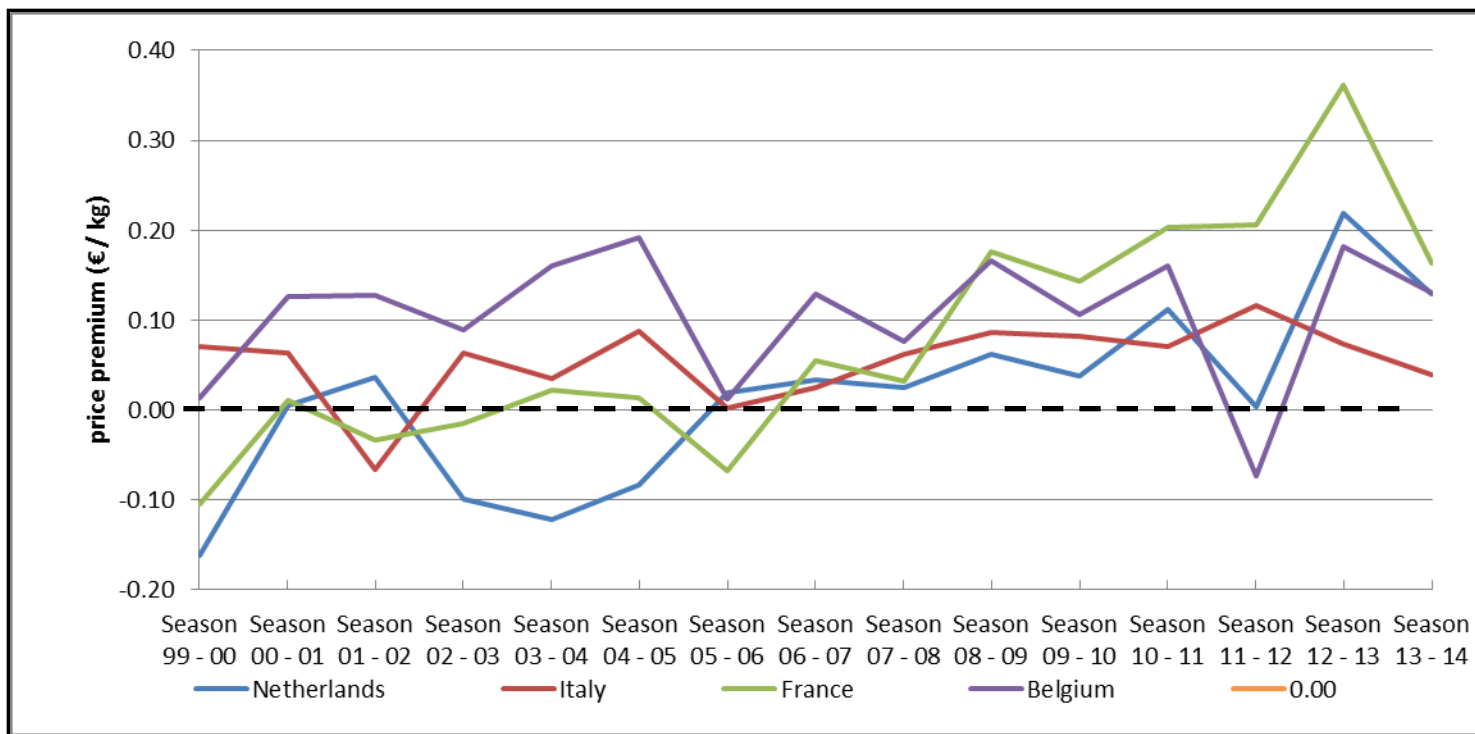
- 70% MRL per stof
- < 100% ARfD per stof
- Maximaal aantal werkzame stoffen in de toekomst verminderen

Restrictions on:

- MRL
- ARfD
- # substances

Reward: willingness to pay

Price premiums for exports to Germany: apples

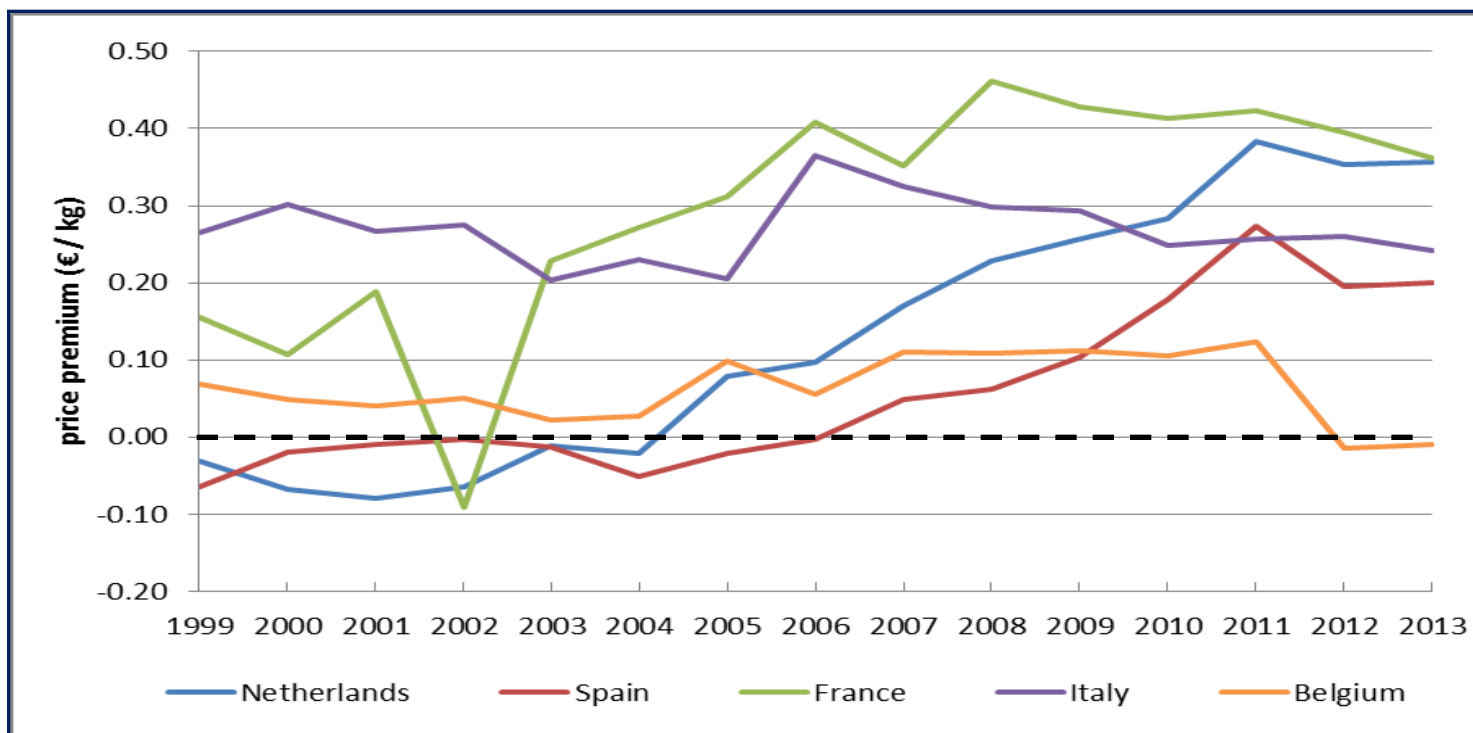


Top-segment pays 10-15% higher prices for top-quality apples.

Jan Buurma
Poznań, 14 January 2015

Reward: willingness to pay

Price premiums for exports to Germany: tomatoes



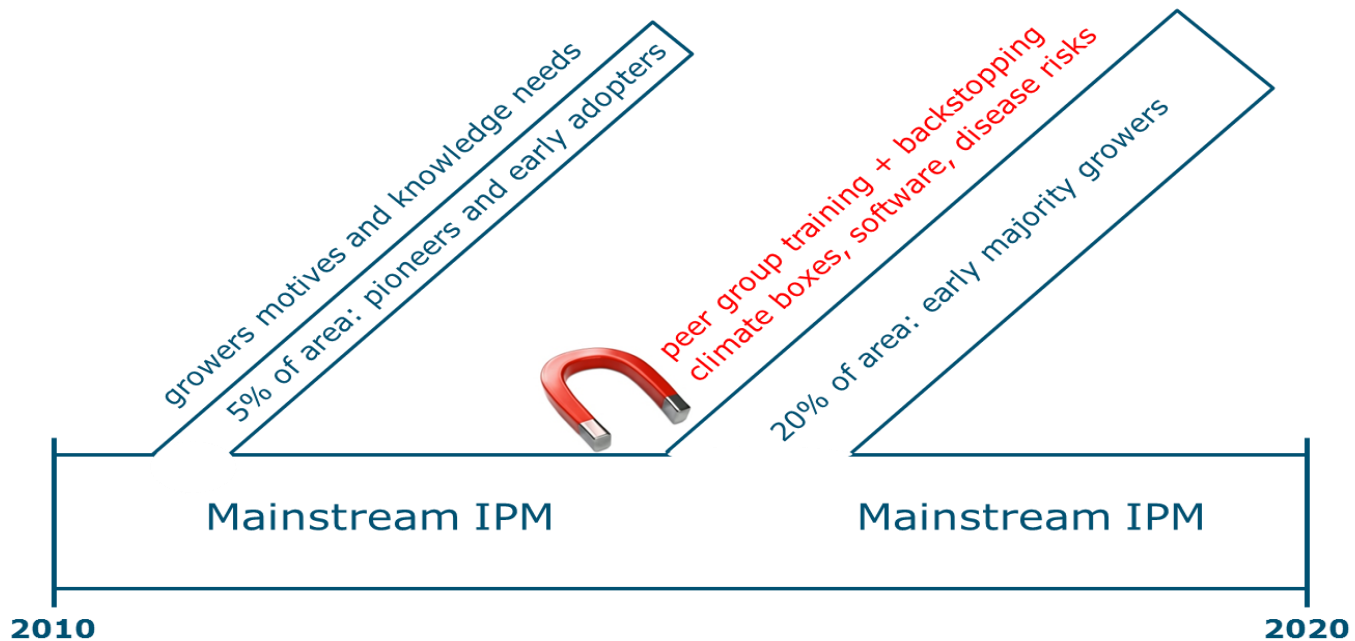
Top-segment pays 20-30% higher prices for top-quality tomatoes

Future IPM = co-innovation

- Economists willingness to pay
- Breeders taste and flavour
- Agronomists growth and colour
- IPM-research low residue
- Post-harvest long shelf life
- Advisers crossing the chasm

Advisers: crossing the chasm

Magneet voor Het Nieuwe Telen



Message: early majority growers require safe learning environment.
Current practise advisers also need to be trained.

Summary

- Growers produce for market
- Shift to demand pull strategy
- Start from willingness to pay
- Additional knowledge need
- Interdisciplinary co-innovation
- Safe learning environment





Thank you for your attention!



The research leading to these results has received funding from the European Union Seventh Framework Programme (FP7/ 2007-2013) under the grant agreement n°265865- PURE