

2nd TREASURE WORKSHOP
TREASURE: A response to user needs in PPP
and RTK
21-22 May 2019
Toulouse

Emergence of high technology markets: the case of space related business

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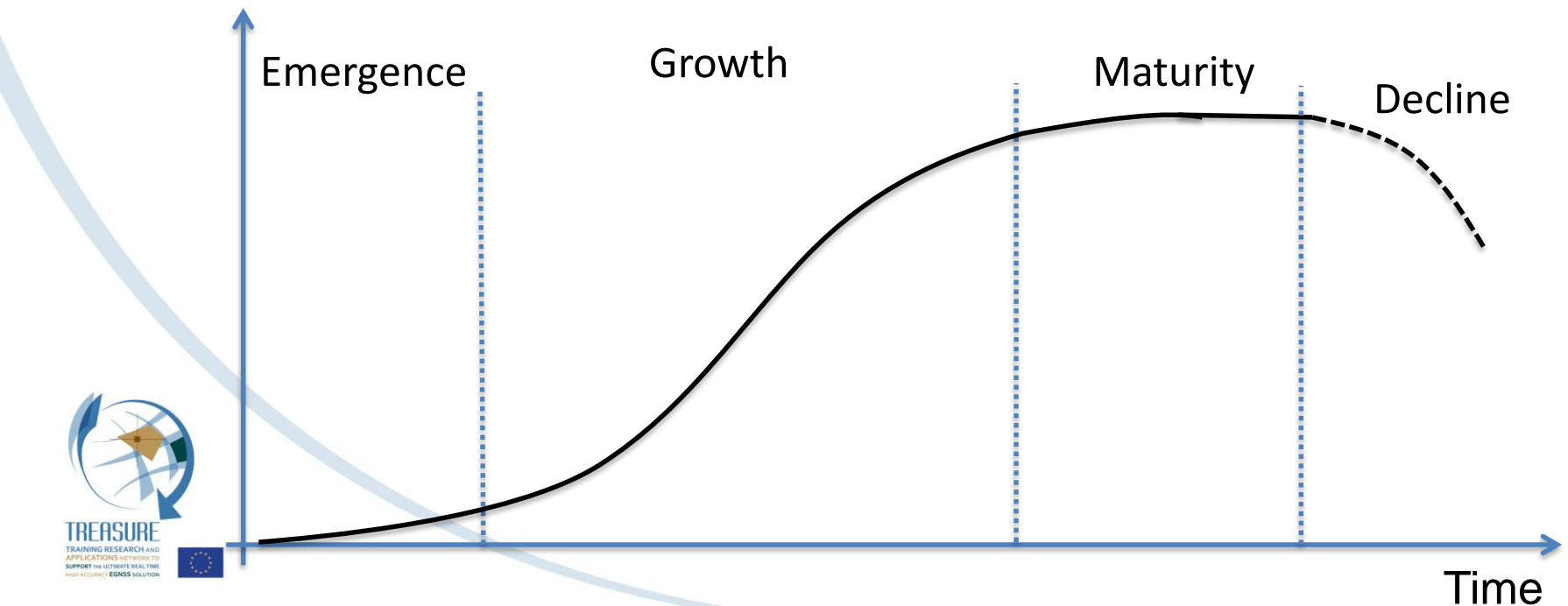
TREASURE
TRAINING RESEARCH AND
APPLICATIONS NETWORK TO
SUPPORT THE ULTIMATE REAL TIME
HIGH ACCURACY EGNSS SOLUTION



Market emergence and product life cycle

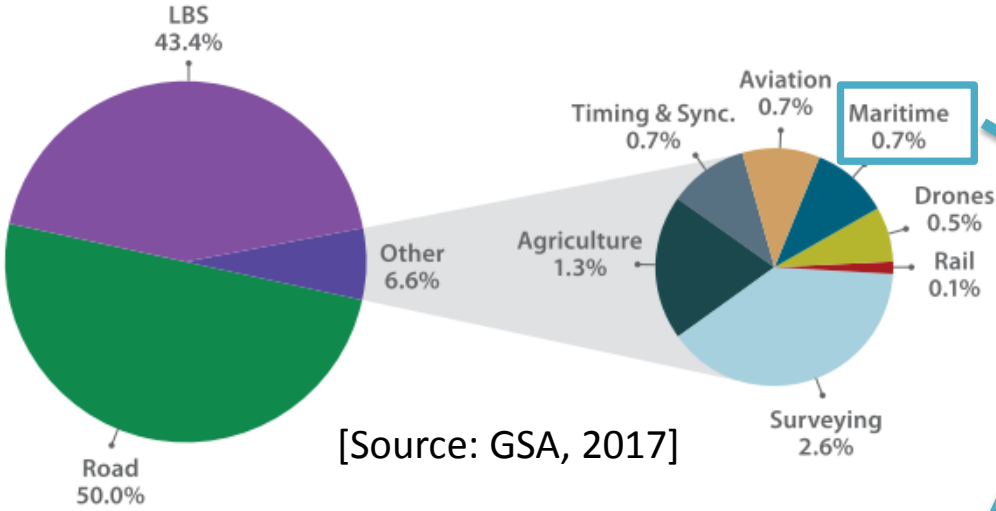
- Typical curve
- Starting point: launch of a new product (aka launch of an innovation)
- Placing firm's product in the life cycle helps to understand current situation and make forecasts on
 - Sales, profits, competition rivalry, production decisions, etc.

Sales / Adoption



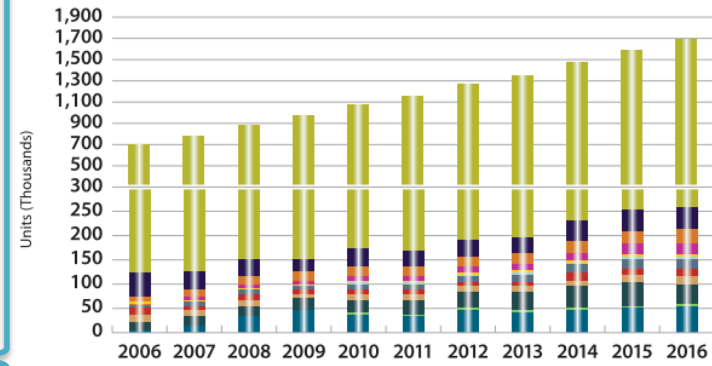
The case of GNSS markets

Cumulative Revenue 2015-2025 by segment

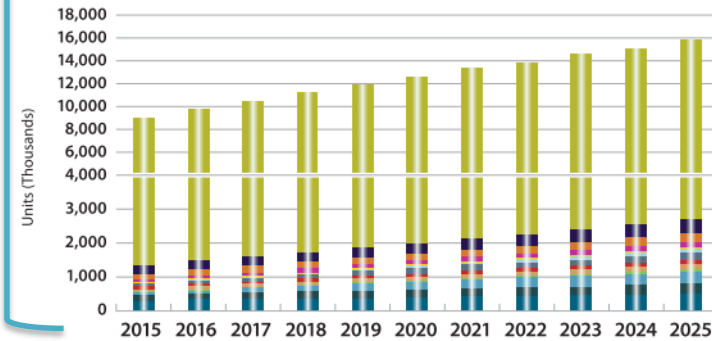


[Source: GSA, 2017]

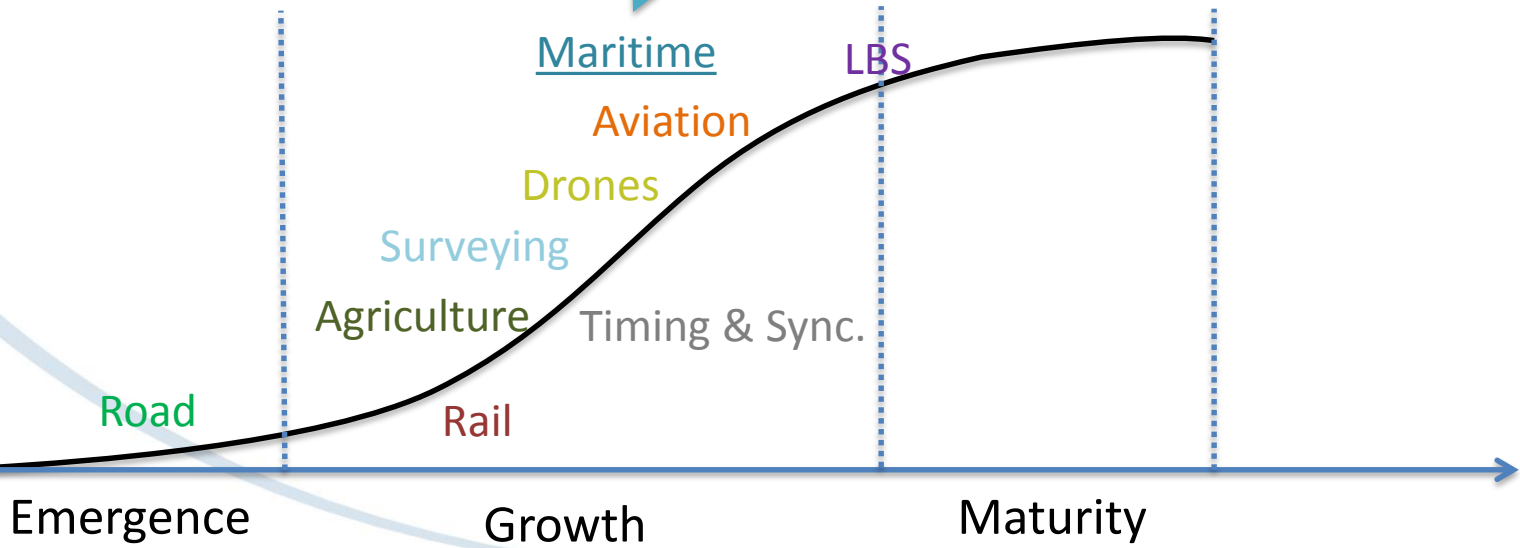
GNSS unit shipments by application



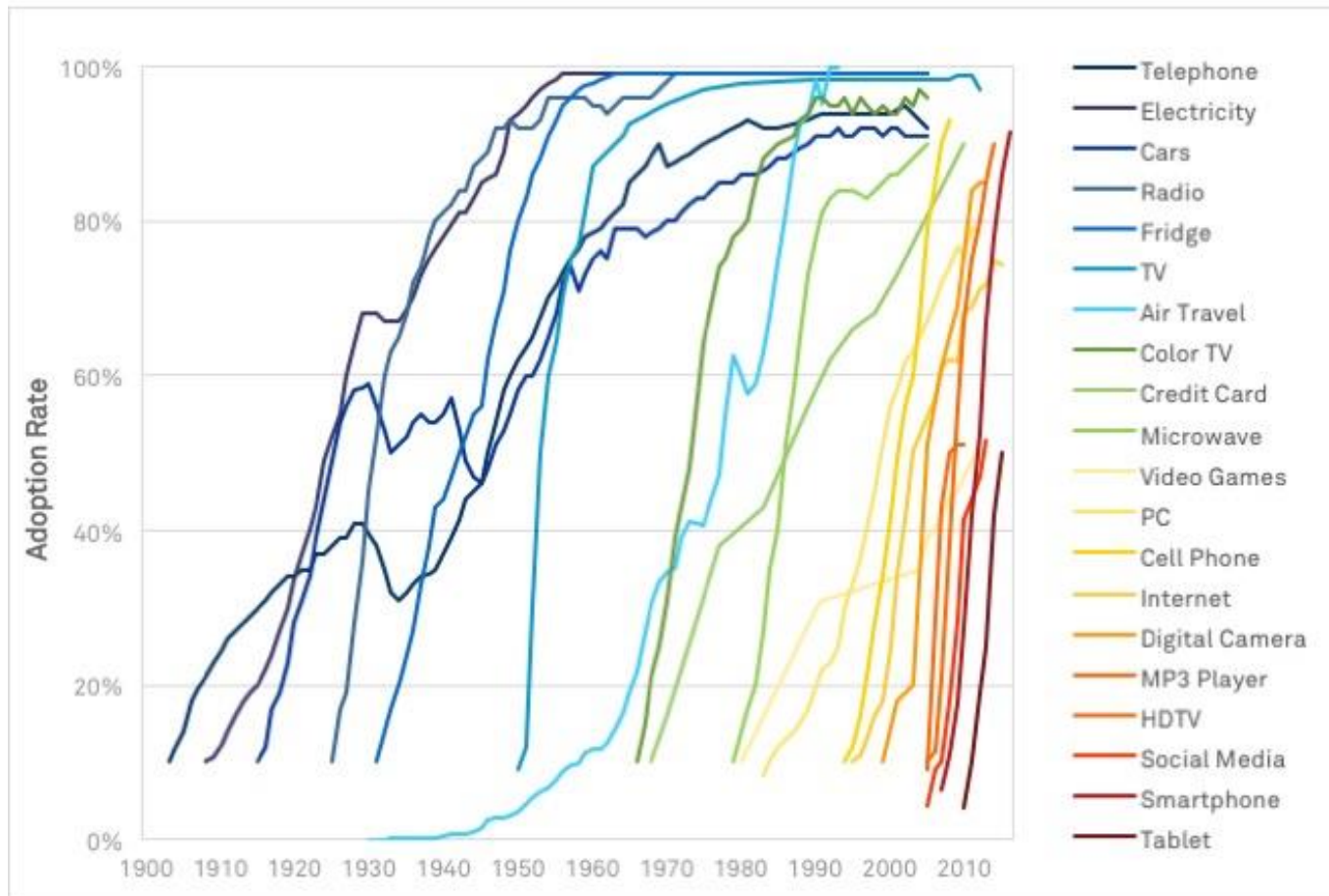
Installed base of GNSS devices by application



Sales



Diffusion of innovations



Source: Asymco

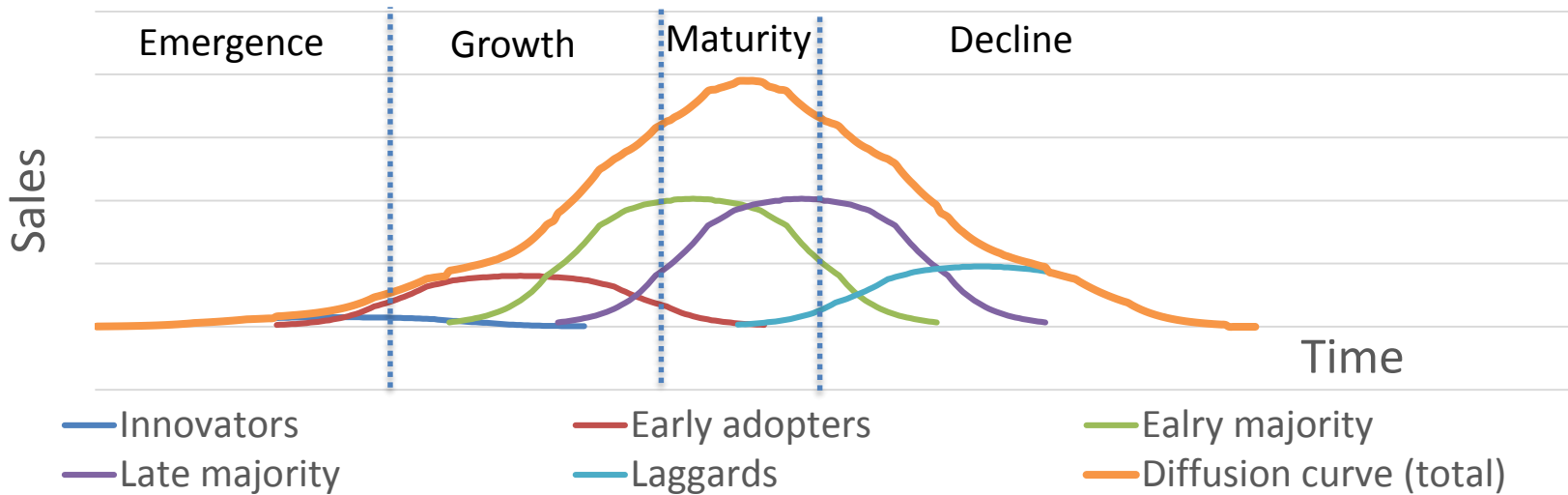
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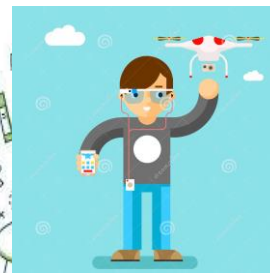
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SUPPORT THE
HIGH ACCURACY

- Many diffusion processes are very chaotic
- 62% of new products launched onto the market are failures
- Improvements build on a better understanding of the diffusion of innovations

Main segments of adopters

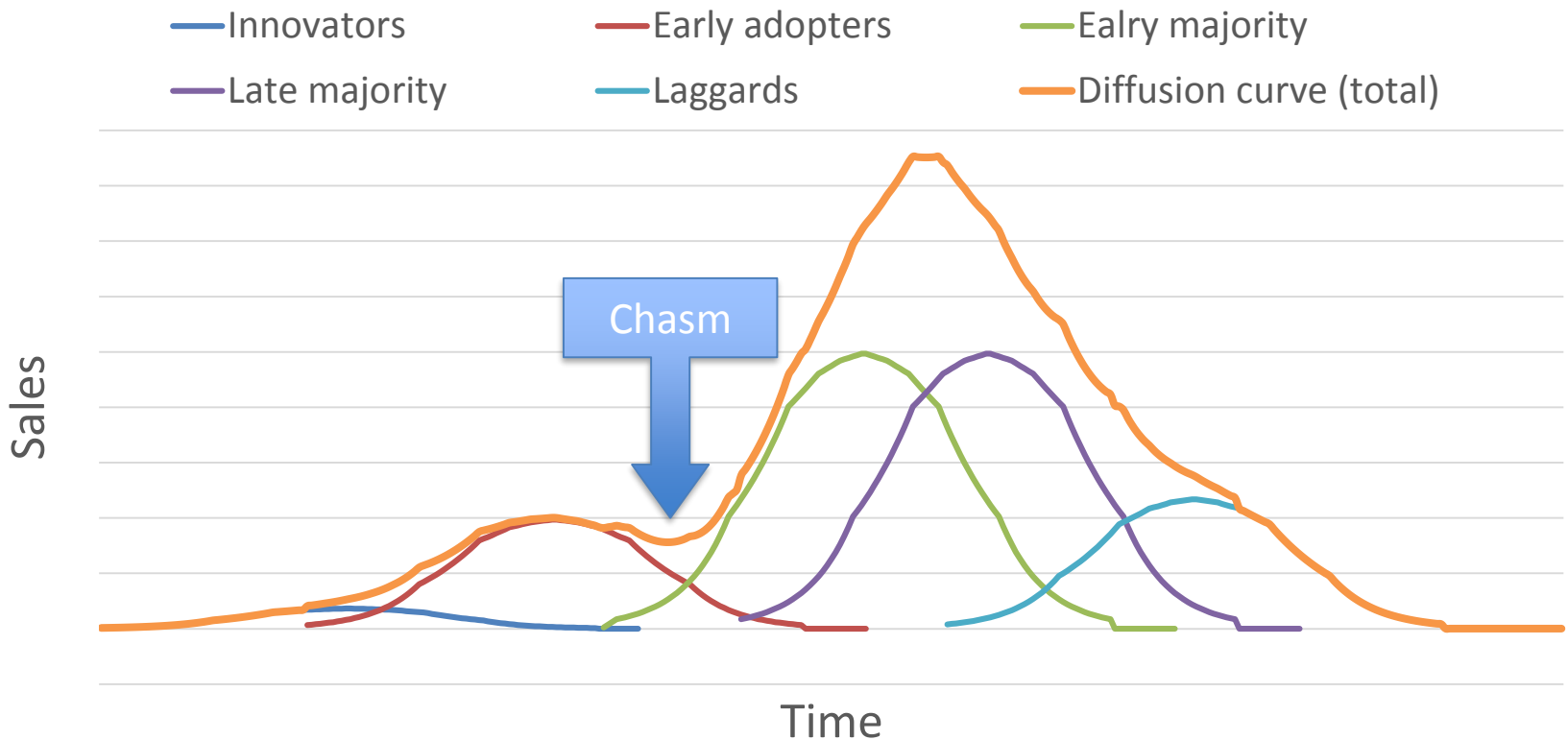


Different needs for each segment	Innovators	Laggards
Expected returns from adoption	+++	--
Expertise on the innovation	+++	--
Risk tolerance	+++	--
Price sensitiveness	---	++
Key performance parameters	Specific	Specific



Chasms and failures of innovations on markets

- If significant changes in the commercial and technical specifications are not made we observe chasms and failures of innovations on the market
- Why?
 - “we do what we do but better” leads to improve the position within the existing adopter segment



Solution

- “we do something different” and not “we do what you do but better”
 - “we do something different” leads to move toward the next adopter segment
- How?
 - Collaborate with existing adopters to find out the new direction for innovation
 - Von Hippel (1986) details the case of collaboration with innovators (aka lead users)

Step 1: learn from existing adopters

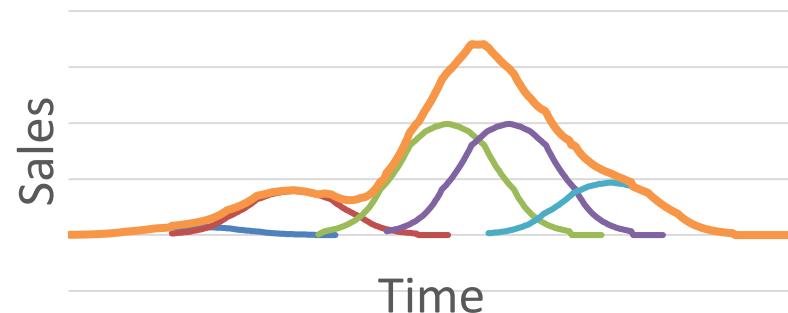
- Learn from innovators by identifying together
 - the needs of innovators
 - the needs of the early adopters from the needs of innovators
 - the obstacles to adoption for early adopters
- Use the information collected
 - Integrate the comments of innovators in the development of the next version of the innovation
- The main objective of the collaboration with innovators
 - Is not to propose a product that fits with the needs of the innovators
 - Is to develop the next version of the innovation that fits with the needs of the early adopters
- Implies significant changes in the technical and market specifications of the product
 - “we do something different”

Some tips

- The producer invites 10 innovators to joint a project team made of 5 employees to develop the next version of the innovation
- Invite only innovators that agree with your vision about the innovation
- Be fair: the project manager has to accept innovators comments otherwise it is useless to invite them
 - e.g. innovators will leave the project team

Step 2: enlarge the market

- Risky choice to do something different
 - Existing customers
 - The needs of innovators tend to be addressed less accurately
 - Innovators will reduce their purchases in new generation
 - Some will argue that they are “betrayed” by the producer
 - e.g. negative word of mouth
 - New customers
 - Difficult to forecast the future sales because it is the first attempt in this market
- In the long term the producer has to leave the innovators market segment to keep selling longer his product in the market



Conclusion

- The diffusion of innovations on the market is chaotic and usually fails
- How to overcome this situation?
 - Collaborate with existing adopters to find out the new direction for innovation

Thank you !



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