RINSPEED

Shaping The Future of Urban Mobility

Tomorrow Becomes
Reality Today

Mobility - Curse or Blessing?
FLEET Convention - Vienna
June 4th, 2019

Statement

Level 5 Autonomy will not only change the type of vehicles used, but also will redefine their usage and the corresponding business cases.
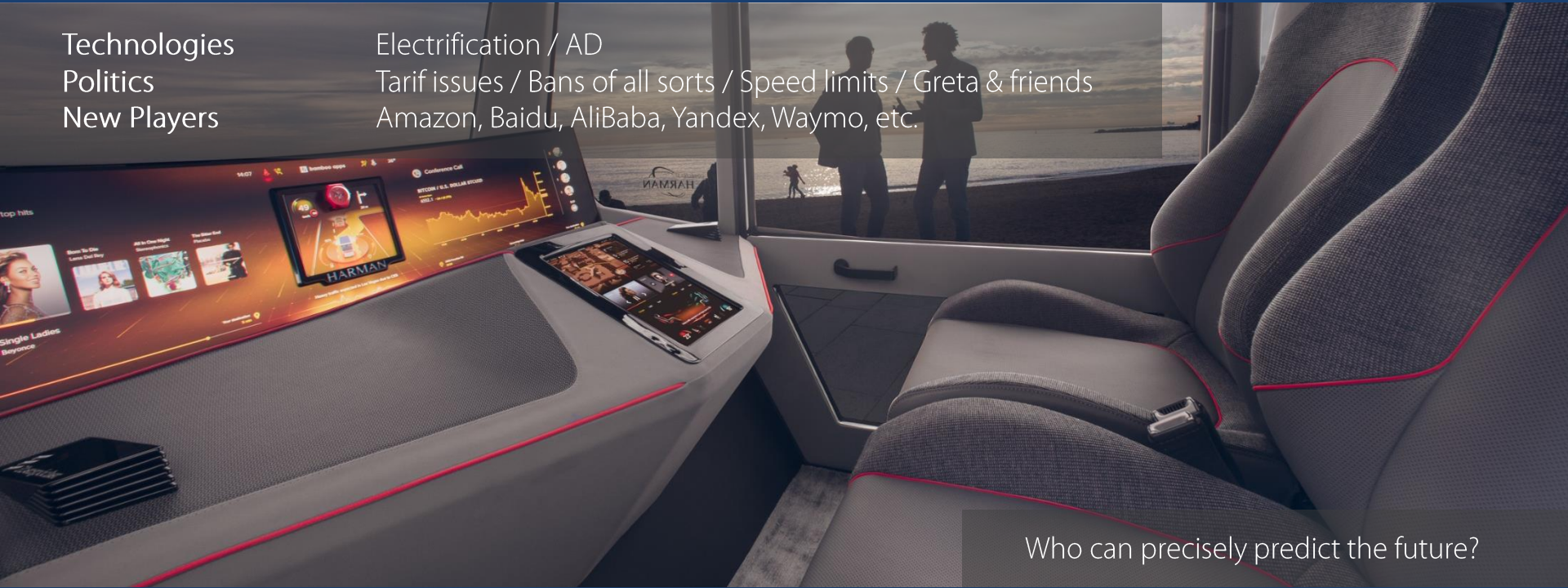
But when do we see Level 5 in reality?

Game Changers

Technologies	Electrification / AD
Politics	Tarif issues / Bans of all sorts / Speed limits / Greta & friends
New Players	Amazon, Baidu, AliBaba, Yandex, Waymo, etc.

Who can precisely predict the future?

Rinspeed

Founded by Frank M. Rinderknecht in 1977 following his passion for individual mobility.
In the early 80s, Rinspeed was one of the initiators of the - at that time - not existing tuning and customizing industry.

In 1995, Rinspeed introduced their first concept car at the Geneva Motor Show.
Since 2008, Rinspeed is fully dedicated to the future of mobility.

Rinspeed Overview

Profile

- Leading independent concept car and prototype builder
- Advanced sustainability and mobility concepts and ITS
- Innovation sparring and consulting
- Communication and networking
- Cutting-edge think-tank and mobility lab
- Worldwide unique positioning

Mission

- Forty-one years of start-up thinking and acting
- The passion for customer needs
- Innovative, disruptive and holistic approach
- Trend scouting and trend setting
- Out-of-the-box and move borders
- Thought leadership
- Think tank

Pioneering & Achievements

- 1977 : Introduction of the Turbocharger
- 1982 : Steering wheel with integrated buttons
- 1984 : Mobile office
- 1999 : X-Tra-Lift
- 1999 : Play-Boxx (Rear Seat Entertainment)
- 2001 : Promotion of "Green" - "Sustainable"
- 2005 : Promotion of mat and white colors
- 2005 : HMI (drivers assistance system)

- 2007 : Downsizing and Light-weight
- 2008 : Autonomous driving experience
- 2010 : Intermodal mobility
- 2011 : Connectivity
- 2012 : Expandable and modular mobility
- 2013 : Increased efficiency in mobility
- 2014 to 2019 : Interior design and changes for autonomous driving

Concept Cars

Some of The Twenty-Five Unique Visions (1995 - 2019)

Problems and the Solutions

Market Considerations

Basic Problems

- Congestion
- Pollution
- Efficiency
- Traditional OEM Conservation and Hesitation (endangered business model)
- Urban Mobility
- Cabin interiors (not transformable)
- Public or 3rd party transportation (not viable, affordable, short lifespan)
- Sharing equals loss of time

True solution?

- Customer : City transportation providers
- Customer : Free float providers

- But how about the customers expectations?

Battle of Life-Spans

Yesterday, today and tomorrow

- According to the German authorities, the average age of an automobile is at 9 years. Its life span ends at the age of 18 years. It is determined by its mechanical components
- What do you do with a PC, laptop, smartphone or pad which is 9 years old?

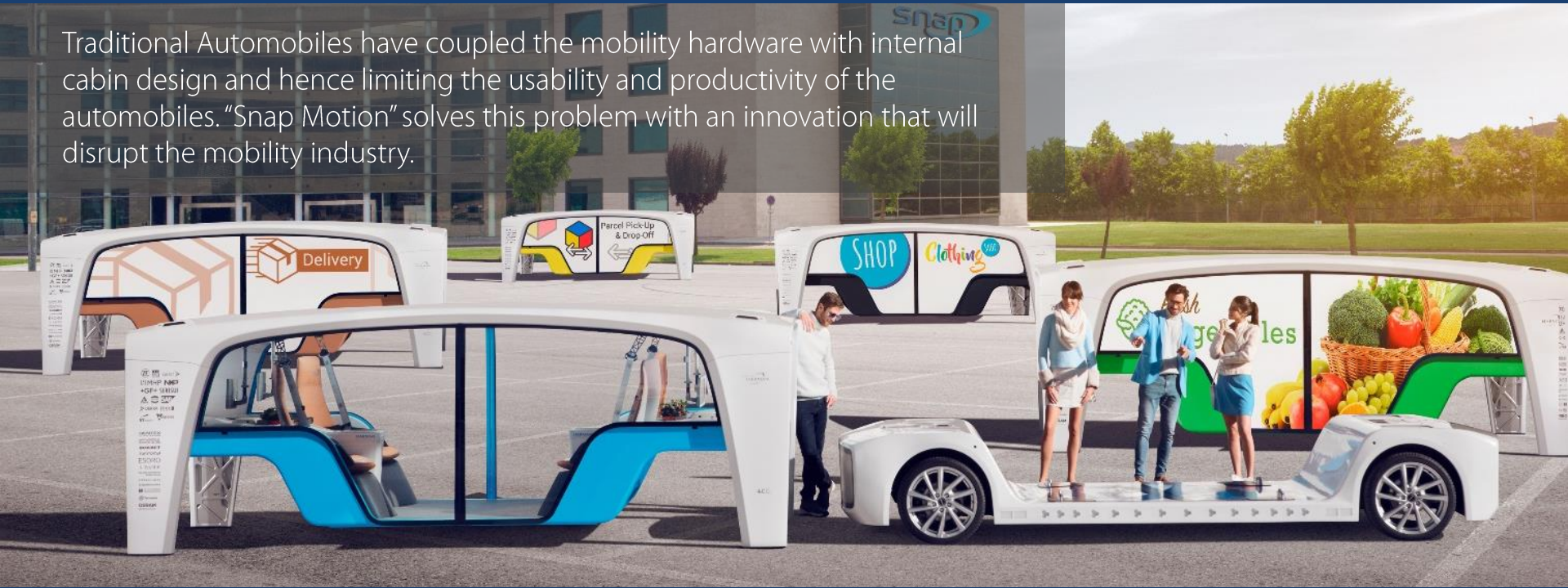- And now? What is the impact on the automotive industry?

Project Description

"Snap"

Traditional Automobiles have coupled the mobility hardware with internal cabin design and hence limiting the usability and productivity of the automobiles. "Snap Motion" solves this problem with an innovation that will disrupt the mobility industry.

"microSNAP"

A Unique, Unprecedented and Proprietary Mobility- and Eco-System

Addressing and solving the needs of future
urban mobility and the requirements of new technologies

"Snap Motion"

Disrupting the existing usages, services and sharing models of automobiles, challenging robotaxis
Creating exciting new services, great experiences and sustainable values

Snap Eco-Systems

RINSPEED

snap motion

Snap Eco-System - Overview

Cloud

Payments

Pods

Eco-System
Snap Motion

Skateboards

Order stream users

Order executions users

Snap Eco-System - Skateboard + Pod

- Open to any "Skateboard" supplier and/or operator
- Allowing new vertical industries to enter the "mobility" market

- Open to any "Pod" supplier and/or operator
- Allowing new vertical industries to enter the "mobility" and stationary market

Snap Eco-System - Suppliers

"Skateboard" Suppliers

- Traditional OEM's
- Tier 1 (e.g. Schaeffler, Bosch, ZF, ThyssenKrupp, Benteler,
    Continental, Magna, etc.)
- New comers
- Battery suppliers (e.g. Samsung, Panasonic, LG, CATL, etc.)
- Electronic supplier (e.g. Foxconn, etc.)
- White labeler (new or transitional from an OEM)
- Etc.

"Pod" Suppliers

- Health
- Entertainment
- Wellness
- Recreation
- Sport
- Business
- Leisure
- Education
- F+B
- Infrastructure
- Etc.

"Pod" Suppliers - Possible Build-Up Strategy

Traditional approach

- OEM
- Body suppliers (such as RV or trailer manufacturers)

Out-of-the box approach

- Open source "body in white" manufacturer

Customizers / Suppliers

- Individual build-up and eco-system integration

Advantage

- Low investment (tooling, testing, homologation, etc.)
- Lead-time
- Pricing

Technical Definitions + Requirements

Standard

- Definition of a certain standard of the connection/merging area
    - mechanics
    - connectivity (power, etc.)
    - IP protected or open sources
    - minimal or extended standard

- Homologation and registration
    - mobile use
    - stationary use

Alternative "Fixed units"

- The "Skateboard" and the "Pod" could also be fixed for dedicated purposes/uses

Backbone System Operator

- Powerful, reliable, fast and geolocal services
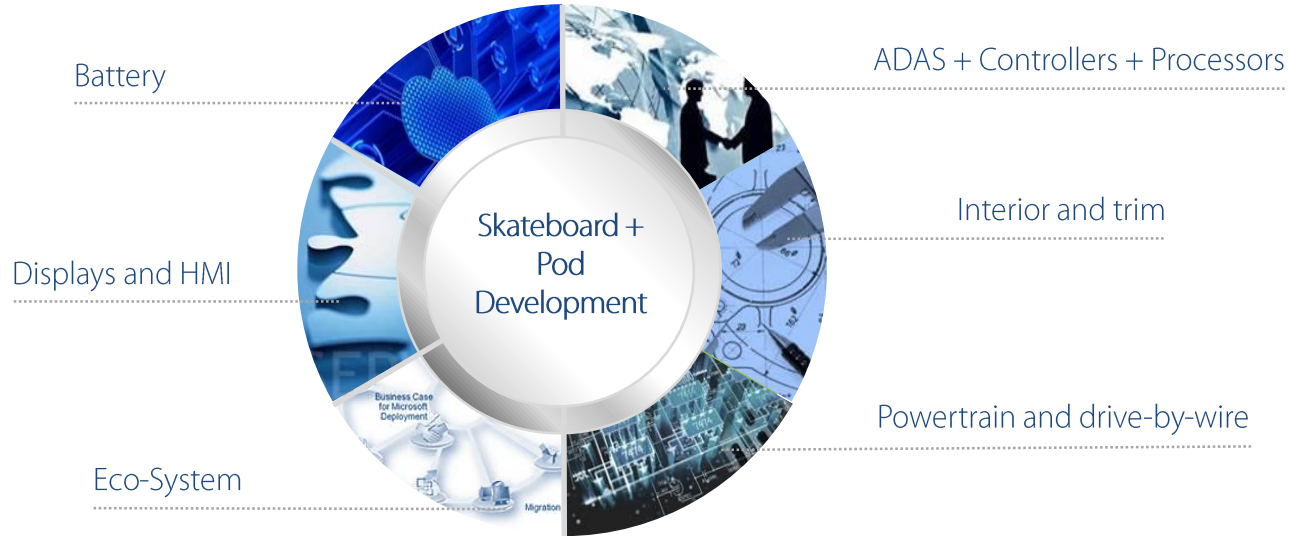
Scalability Approach

Foundation

Unique Tier 1 and 2 Partnership Model and Eco-System

- Joint development
- Cutting edge technology implementation
- Exchange of test results, experience and data
- In-depth knowledge base
- External customer viewing and trials
- Product development and implementation
- Positioning and communication

Tier 1 and 2 Partnership Eco-System

Overview of Partner Domains (not terminatory)

Battery

ADAS + Controllers + Processors

Interior and trim

Displays and HMI

Skateboard +
Pod
Development

Powertrain and drive-by-wire

Eco-System

Industrial Pod Changing Exploitation

Robotic / Automated Systems

Possible Business Models

"Apple Approach"
Owning the major component(s), create satellite ecosystem

"Amazon Approach"
Create open market place

"Google Approach"
Build software platform that powers "Snap" extracts all data for the users and monetizes
 data and delivers ads in the "Pods", open source the design of hardware

Above and combined Uber/Lyft Approach
Create platform for fixed units

Staged Approach
Go step-by-step with the development and growth of the eco-system

"Mobility as a Service (MaaS)"

- Convenience
- Experience
- Ease of Use

but also thinkable

- Disruptive Approach ("Free Mobility" like "Free Shipping")
- New Constellations (Cities as "Mobility Owners")

"microSNAP" Video

RINSPEED

Contact

Frank M. Rinderknecht
CEO
Rinspeed Inc.

✉ fmr@rinspeed.com

☎ +41 79 400 25 25

🔍 www.rinspeed.com

RINSPEED **snap** motion