The future development of e-mountain bikes in Europe

Jonathan Sweet
Bosch eBike Systems
BOSCH eBIKE SYSTEMS
Definition

- A pedelec (from pedal electric cycle) is a bicycle where the rider's pedaling is assisted by an electric motor. Unlike some other types of e-bikes, pedelecs are legally classified as conventional bicycles in many countries by road authorities, esp in EU.

- Pedelecs include an electronic controller which stops the motor producing power when the rider is not pedaling or when a certain speed – 25 km/h in EU, 20 mph in NA – has been reached.
Pedelec Segments vs Bosch Product Lines

Bosch offers tailored Drive Systems for different applications:

- **Active Line** → City / Tour / Trekking
- **Performance Line** → Urban / Trekking / ATB
- **Performance Line CX** → eMTB
MY15 Bosch Product Portfolio for eMTB

Performance Line CX
- Strongest assistance over all rpm
- Real ISIS-Interface
- Best-in-class Q-Factor
- Extra robust powder coating

PowerPack 300
- Lightest battery 2,0 kg

PowerPack 400
- Highest energy density (160Wh/kg)
- 2,6 kg weight

Nyon
- Fitness functions
- Manual altitude setting
- User-defined assistance modes customization

Intuvia
- Intuitive and well-proven
- Off-Board use
- Walk assist

Travel charger
- Charging on the way to your next ride

4A charger
- Fast, robust, silent
- Small & lightweight

Widest tailored product portfolio for eMTB!

Automotive Electronics
Future use & target groups of e-mountain bikes.

- eMTB is currently a small segment but with the largest growth rate of all eBikes in EU

- like in MTB we expect largest segment in ATB / “normal MTB” (average spec, hardtail or medium suspension travel)
  - for tour and trekking on trails and gravel roads

- some very sportive eMTB with All Mountain/Enduro style spec
  - single trails, flow trails
Which age category buys e-mountain bikes?

- Age class moved from 60+ to 30+
- 50+ and 60+ buy eMTB because of the cool looks and image
- 30+ and 40+ because of the riding performance
- Younger riders like the fun aspect of the power on trails
Pedelec: Trend in all Segments

“classic E-Bike”

Target Group: 60+ → 50+ → 40+

Urban
City/Trekking
Commuters, Leisure, City, Touring
Mostly Private use
Fun
Sportive
Fascination
Enthusiasm
Social acceptance
Cool

Road
MTB/Fully
Urban
City/Trekking
Cargo

“E-Bike”

Lifestyle & Sport
Tourism
Commuters & Leisure
Fleet
Familys & Commercial

Pedelec: All bike types are electrified!

Automotive Electronics

IMBA EUROPE SUMMIT 2015 | RAMATUELLE
Anti Tampering

→ Bosch and the Industry work on a “Code of Business Conduct to prevent from illegal tampering (Tuning)”

Key messages:
• The eBike industry is strictly against tampering
• eBike industry will create a high level of awareness for all stakeholders e.g. dealers, consumers, authorities
• The ebike industry actively discourages the distribution chain to support tampering (contracts, legal measures…)

• Contracting with dealers to include a code of conduct.
  - No distribution of tuning kits / no manipulation of the system to increase to the speed etc.
  - Training and information about the consequences of violation of the code of conduct

• eBike Industry will team up with dealer / cycling organizations to discourage dealers and consumers from tampering
• The ebike industry offers education to discourage dealers and users
• eBike industry is willing to cooperate with police authorities how to identify speed ebikes and how to identify manipulation
Will e-mountain bikes change the mountain bike sport?

⇒ Bosch sees eMTB as the logical continuation and addition to the MTB in recreational sport for the average cyclist
Will there be e-mountain bike categories at competitions?

➔ The new eMTB categories in MTB racing (German Masters, 24h Rad am Ring etc.) are an evidence and proof for the acceptance...
Is additional instruction / skills training needed for safety reasons?

- eMTB is a human powered bike sport if we limit the E-power to the EU level (250 W, 25 km/h)

- speed on even or downhill trails is the same; the power helps on moderate and step uphill trails

- only for technical sections the MTB training might be upgraded to eMTB due to the added weight and for uphill climbing
What is the attitude of other recreational trail users (hikers etc.) and land managers towards the use of e-mountain bikes?

- The initial reaction of MTB cyclists and purists was: “this is cheating, this is wrong!"  
  - this seems to no issue anymore in the EU

- As long as the EU-definition of eBikes (25 km/h, 250 W) is respected, any eMTB is rated as a MTB bicycle

- As of today, hikers and landmanagers in EU do not differentiate between MTB and eMTB

- MTB and eMTB face the same trails access discussions
Acceptance might change, if we do not act and prevent:

- Bosch promotes “eMTB is equal to MTB” in terms of use case, utilization, rights & duty, and responsibility

- Bosch promotes “eMTB” in a responsible way (2014 video “Uphill Flow”)

- “Uphill Flow” part 2 will be produced in Spring 2015 in the Alps to show technical training, riding skills, guided tours of “average MTB tourists”

- Bosch appreciates the DIMB and IMBA initiatives and respects & promotes trail etiquette
Bosch: Uphill Flow
Bosch Promotion regarding eMTB

- Bosch believes that eMTB is a reasonable and positive addition to the MTB

- „Bike more, bike longer (age & duration), have more fun on your bike!“

- Positive addition to the sport:
  First eMTB races prove this!

- Trail Etiquette is very important !!!
THANK YOU FOR YOUR ATTENTION!

Automotive Electronics