

# Helmet Optimization in Europe

COST Action TU1101, also known as HOPE (Helmet OPTimization in Europe), aimed to stimulate collaboration amongst European scientists in the field of bicycle helmet safety and improvement. By working in a single, collective Action, researchers improved the collection and dissemination of data from across Europe, thereby stimulating and accelerating knowledge.

**For perhaps the first time, the issue of bicycle helmets was addressed from an international perspective**



## HOPE results

HOPE's results include: (i) establishment of a Europe-wide database for bicycle accident reporting; (ii) development of an international survey on bicycle accidents and helmets with over 8,500 responses to date; (iii) proposal of a new bicycle helmet test method, integrating more realistic impact conditions and pass/fail criteria; (iv) specification of design and manufacturing improvements to significantly reduce discomfort and increase helmet usage. In addition, numerous scientific papers and presentations were produced. Perhaps most importantly, Working Group members received invitations to continue their research in other studies and collaborations.

## Uncovering new research areas

Despite all the tangible results each Working Group attained, the topic of bicycle helmet manufacturing and usage is far from being exhausted. Only through further collaboration, investigation and discovery can more insights be uncovered. And only through real cooperation amongst researchers can the various factors that influence helmet usage all be addressed simultaneously, and can real solutions be found.

COST Action TU1101 was structured in four Working Groups.

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### 1. In-depth accident observations and injury statistics

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### 2. Traffic psychology

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### 3. Impact engineering

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### 4. Ergonomics of thermal aspects

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This flyer is based upon work from COST Action TU1101, supported by COST (European Cooperation in Science and Technology). COST is a pan-European intergovernmental framework. Its mission is to enable break-through scientific and technological developments leading to new concepts and products and thereby contribute to strengthening Europe's research and innovation capacities. [www.cost.eu](http://www.cost.eu)

COST is supported by the EU Framework Programme Horizon 2020.