



**Motorsport Industry:
driving innovation and industry diversification**
New knowledge development and knowledge sharing

By

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with Gabriele Testi (Motorsport journalist)

The global **Motorsport Industry** comprises:

- '**motor**': meaning the provision (construction and preparation) of cars and bikes and;
- '**sport**': meaning the infrastructure including clubs, circuits, promotion, insurance and so on which are needed to participate in, spectate, or view the sport.

Motorsport value chain

Regulation of sport

Regulatory environment for business and fiscal environment

Supporting Service industry

Constructors

Participants

Events

Distribution

Consumption



Constructor suppliers



Event suppliers

Motorsport Industry **Data**:

Global Turnover: above \$ 100 billion *

(Formula 1 organisational and media rights currently sold at above \$ 8 billion)

Global Audience Formula 1: approximately 400 million - only behind FIFA World Cup and Olympic Games

Global Motorsport events: 56 across 29 countries *

Thousand of yearly events at the national and regional level all over the world

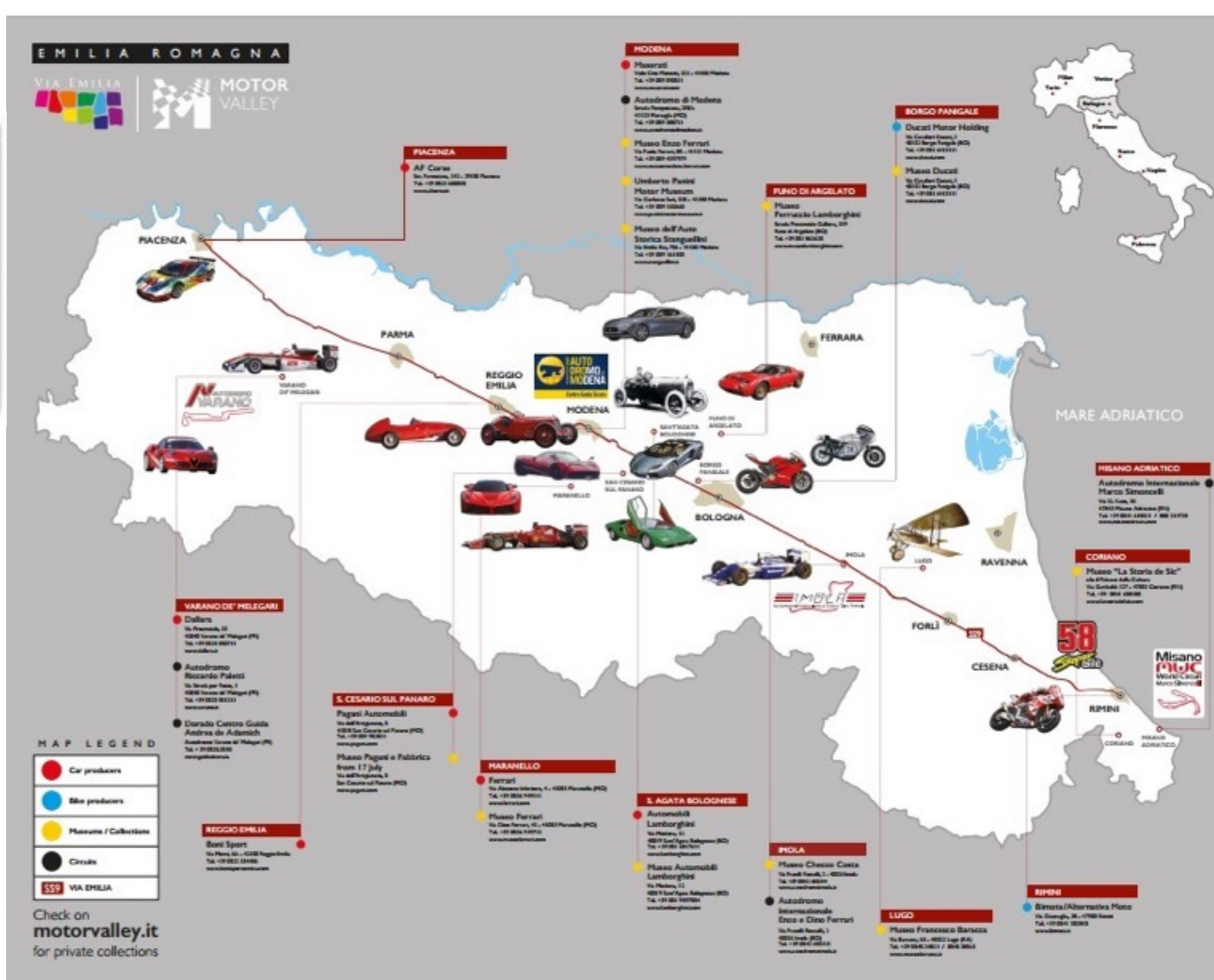
* (Henry et al., 2007)

Motorsport dynamics and lessons for management:

- **Know-how** generated and developed through a synergetic mix of **highly skilled human capital** and **high level technological Capital Investment**;
- Concrete understanding and **implementation of innovation**;
- Marked systematic capability to **share know-how with other industries**.

Key Historic and Current Global Regions for
Motorsport Industry presence and
development:

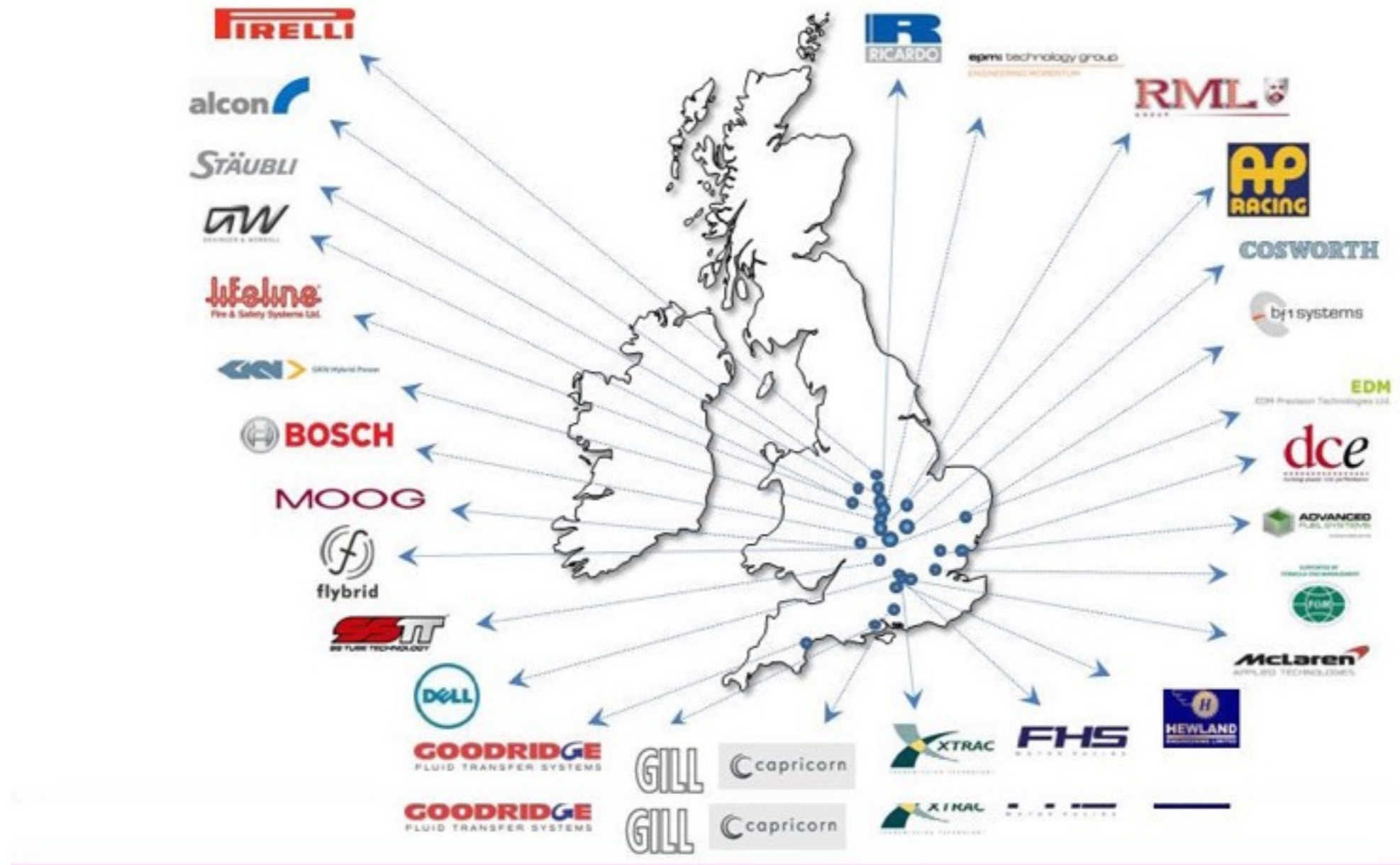
Italy and United Kingdom



- since early 1920s / traditional mechanical craftsmanship and racing focus
- very active from a supercar manufacturing / racing and touristic point of view



Motorsport Suppliers



- since 1950s / aviation industry technology / ex-military aviation airfields
- turnover £ 9 billion and 41.000 employees in 2012

Know-how generated and developed through a synergetic mix of highly skilled human capital and high level technological Capital Investment

Case study



Italy

High precision machine tooling for small batches productions or prototyping (friendship & concurrent entrepreneurial development Enzo Ferrari - Iliano Parrini)

- > since 1947 continuous investment on the latest technology (Invested 20 % of yearly turnover)
- > utilised by highly skilled workmanship (90 % of employees Technical Diploma and University Degrees - average seniority well above 30 years)

SINCE 1947

KNOWLEDGE DEVELOPED, APPLIED &
DYNAMICALLY SHARED ACROSS
SECTORS



aviation



motorsport



SINCE 1947

KNOWLEDGE DEVELOPED, APPLIED &
DYNAMICALLY SHARED ACROSS
SECTORS

PRESENT TIME...

aerospace / aviation / defense

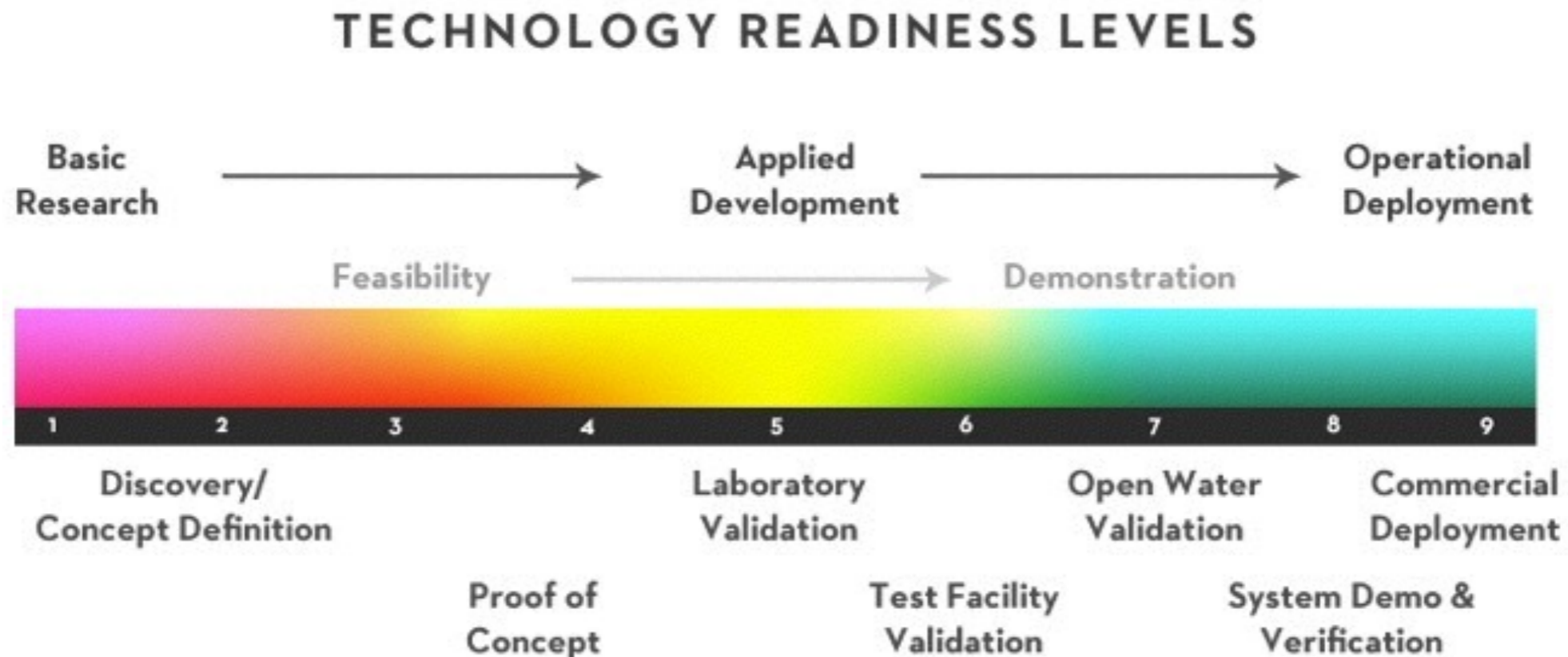


motorsport / automotive



Concrete understanding and implementation of innovation

INNOVATION: APPLYING ORIGINAL THINKING TO SOLVE PROBLEMS AND/OR CREATE VALUE FOR MARKETS



**MOTORSPORT MANUFACTURERS: CAPABILITY TO ACCELERATE
THE 4 TO 7 TRL PHASES
ESSENTIAL IN TODAY'S AUTOMOTIVE INNOVATION**

Concrete understanding and implementation of innovation

INNOVATION: APPLYING ORIGINAL THINKING TO SOLVE PROBLEMS AND/OR CREATE VALUE FOR MARKETS

MOTORSPORT MANUFACTURERS: CAPABILITY TO ACCELERATE THE 4 TO 7 TRL PHASES ESSENTIAL IN TODAY'S AUTOMOTIVE INNOVATION (AND NOT ONLY...)

Case study



Italy

Entire project innovation cycle in motorsport and beyond: design, development, carbon fiber manufacturing, testing, racing



INNOVATION: effectively solving a problem through accelerating the 4 to 7 Technology Readiness Level phases

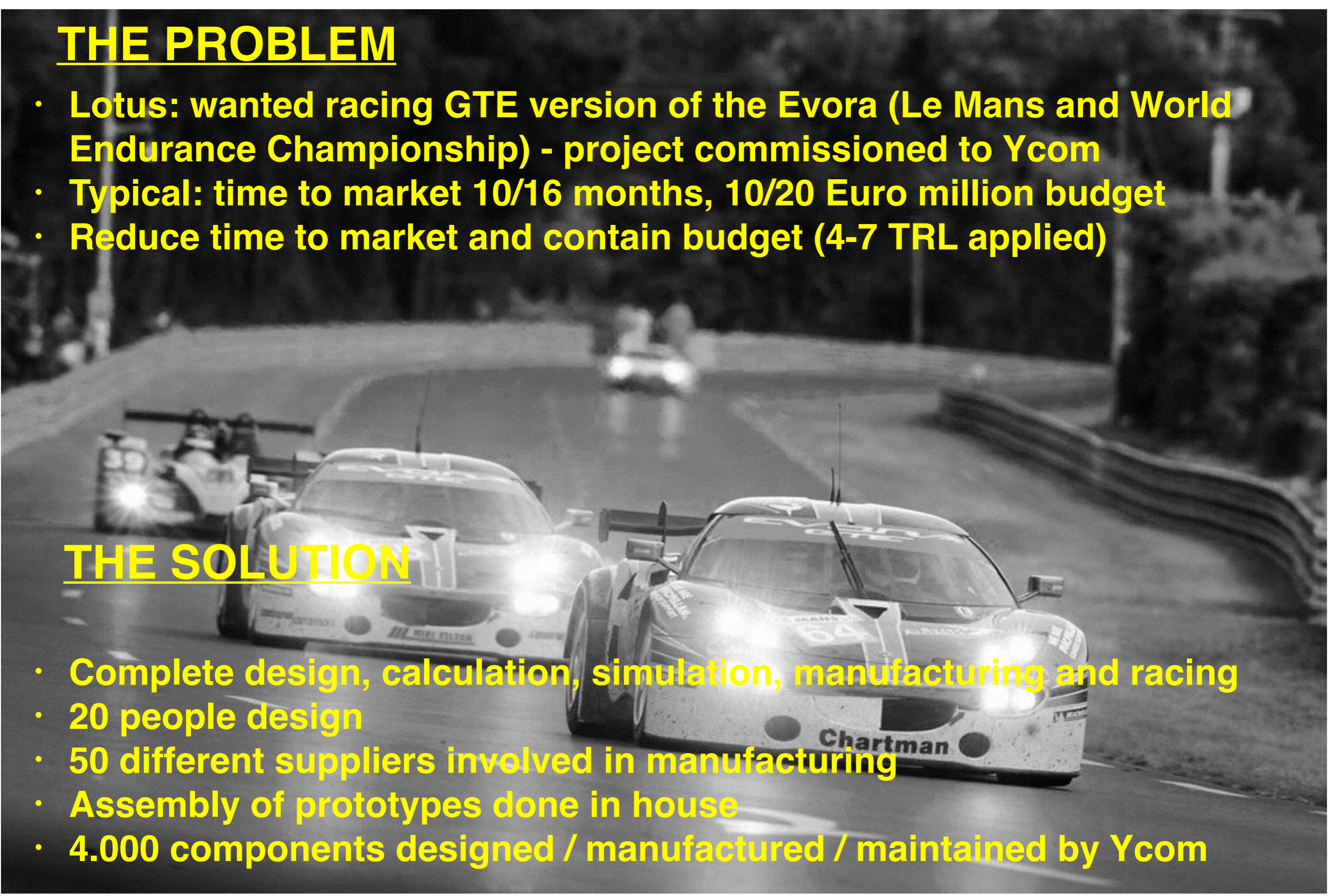


THE PROBLEM

- **Lotus: wanted racing GTE version of the Evora (Le Mans and World Endurance Championship) - project commissioned to Ycom**
- **Typical: time to market 10/16 months, 10/20 Euro million budget**
- **Reduce time to market and contain budget (4-7 TRL applied)**

THE SOLUTION

- **Complete design, calculation, simulation, manufacturing and racing**
- **20 people design**
- **50 different suppliers involved in manufacturing**
- **Assembly of prototypes done in house**
- **4.000 components designed / manufactured / maintained by Ycom**



INNOVATION: effectively solving a problem through accelerating the 4 to 7 Technology Readiness Level phases



CONCLUSION

- **Overall implementation time: 5 months**
- **Investment reduced to 5 million Euro**
- **Great success on track against strongest competition**
- **Finish 24 hours of Le Mans on first attempt**
- **23.000 KM, one season no technical failure**



Marked systematic capability to share know-how with other industries

KNOW-HOW CONTINUOUSLY DEVELOPED, UPDATED AND INNOVATED ON RACE TRACK COMPETITIVE FIELDS ALLOWS FOR TECHNOLOGICAL AND PRACTICAL APPLICATION IN OTHER INDUSTRIES

McLaren since 1963 Motorsport Manufacturer & Racing Team.
Winning 20 World Championships and over 180 races.
Always at the forefront of technological development.



Apple + Add to myFT

Apple in talks on McLaren supercars takeover

iPhone maker's approach to British supercar group signals automotive ambition

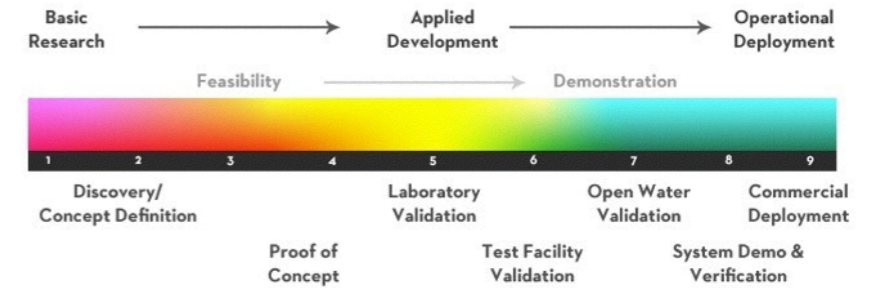


113 comments Save

SEPTEMBER 21, 2016 by: **Matthew Garrahan** in New York and **Tim Bradshaw** in San Francisco

Apple has approached McLaren Technology Group, the British supercar engineer and Formula One team owner, about a potential acquisition, in the clearest sign yet that the iPhone maker is seeking to transform the automotive industry.

TECHNOLOGY READINESS LEVELS



By: **Jonathan Noble**, Formula 1 Editor

2016-09-22

Apple and McLaren did hold talks about a potential future partnership, sources have indicated to Motorsport.com, but the discussions came to an end for unspecified reasons.



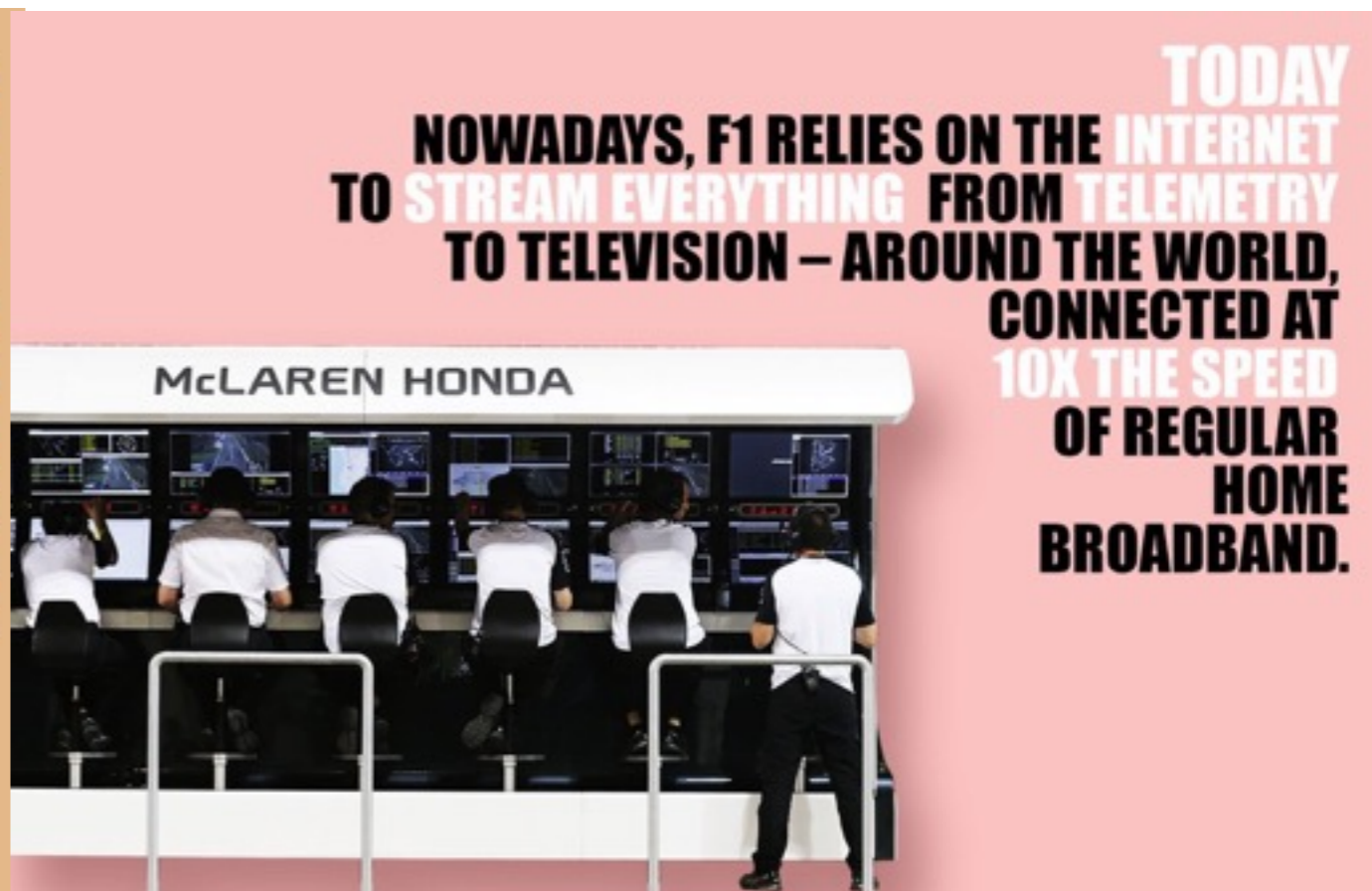
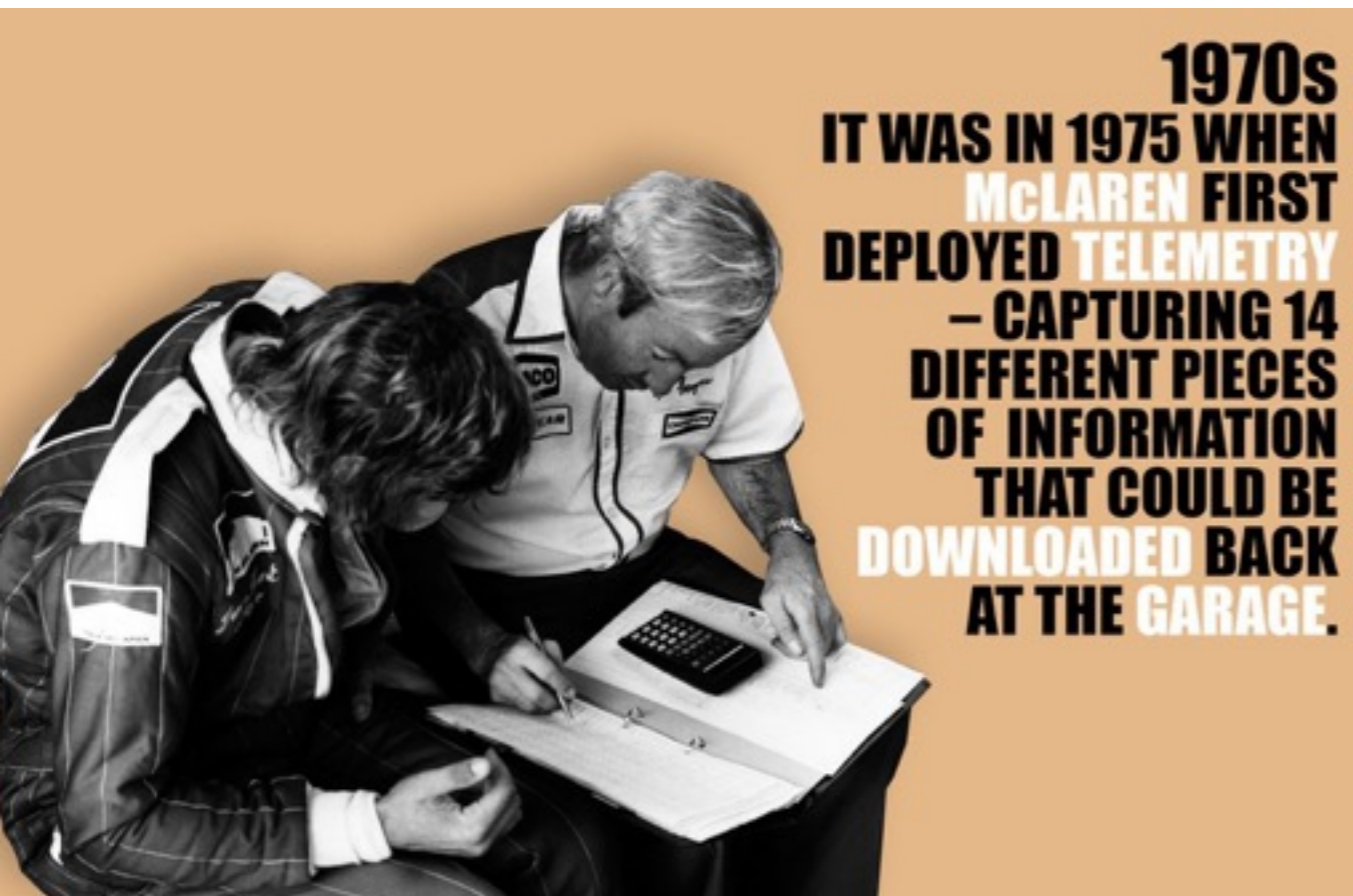
Marked systematic capability to share know-how with other industries

KNOW-HOW CONTINUOUSLY DEVELOPED, UPDATED AND INNOVATED ON RACE TRACK COMPETITIVE FIELDS ALLOWS FOR TECHNOLOGICAL AND PRACTICAL APPLICATION IN OTHER INDUSTRIES

Case study



United Kingdom

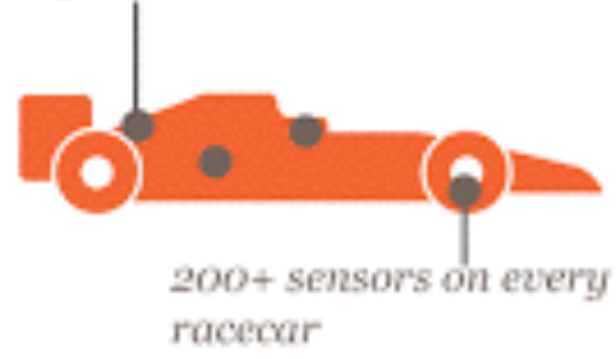


Experiences and technology developed on racing tracks utilised in other industries: Health & Wellness



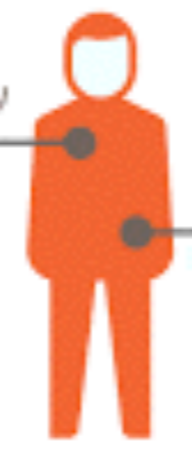
Sensors used by McLaren

More than a billion data points

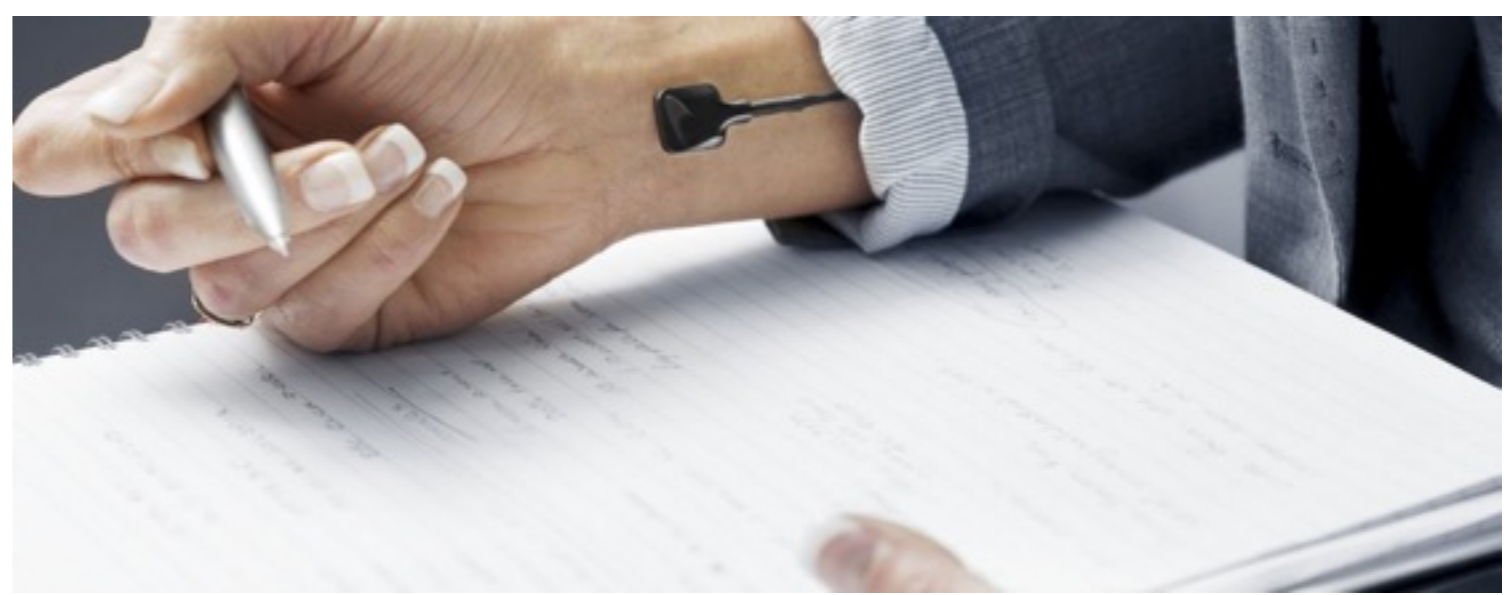
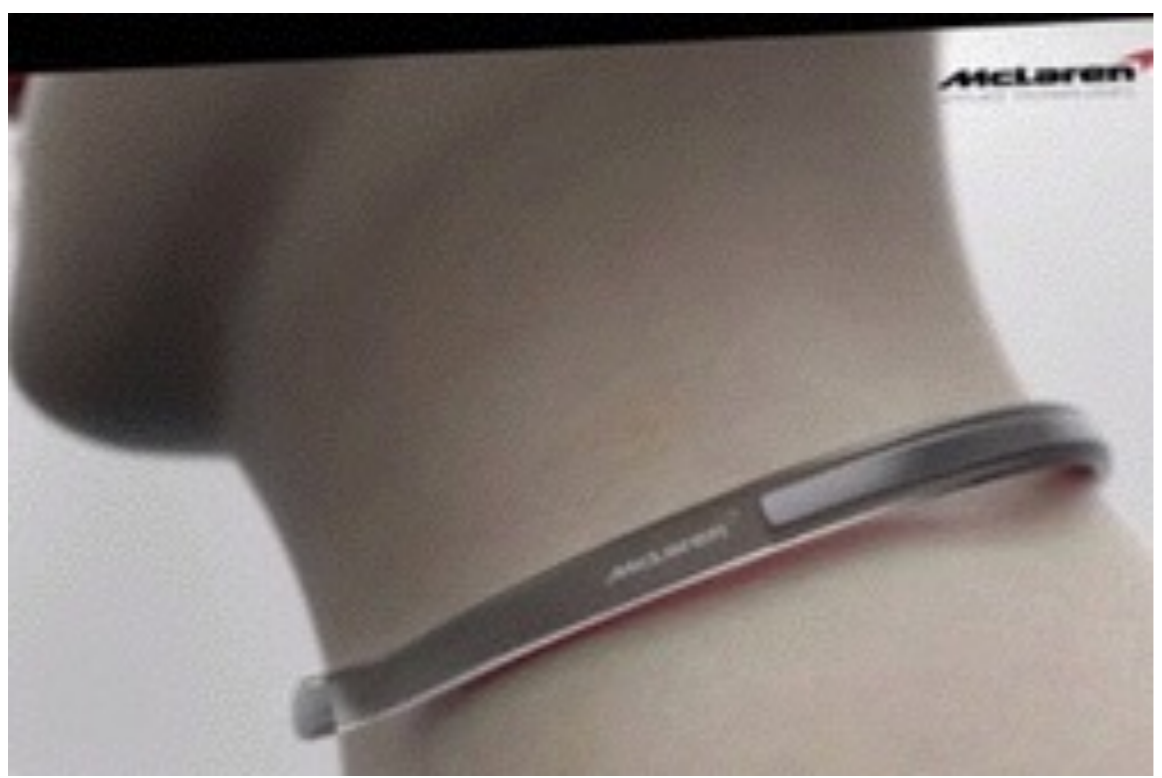


Biosensors used by GSK

Wearable sensors on patients to study vital signs



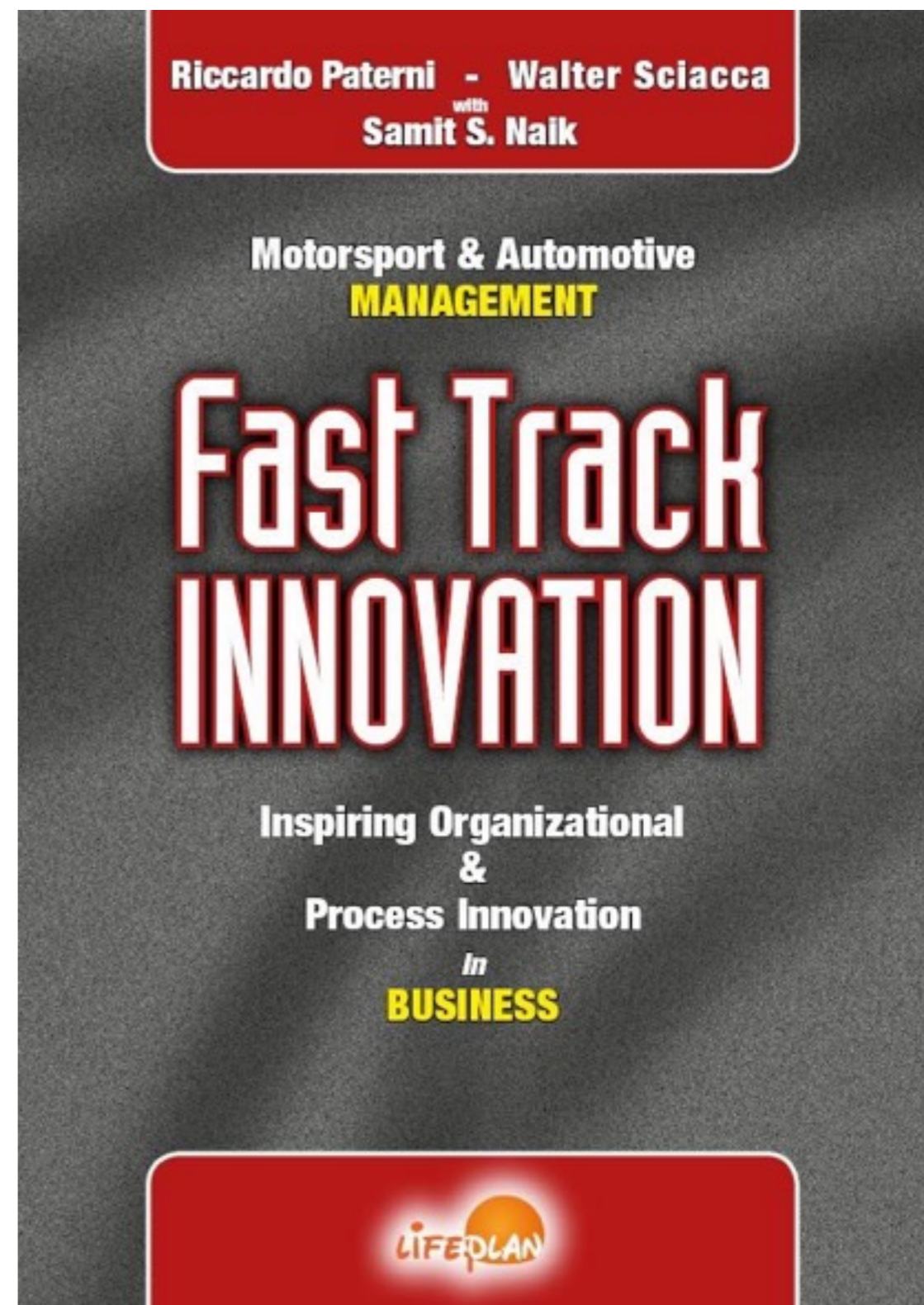
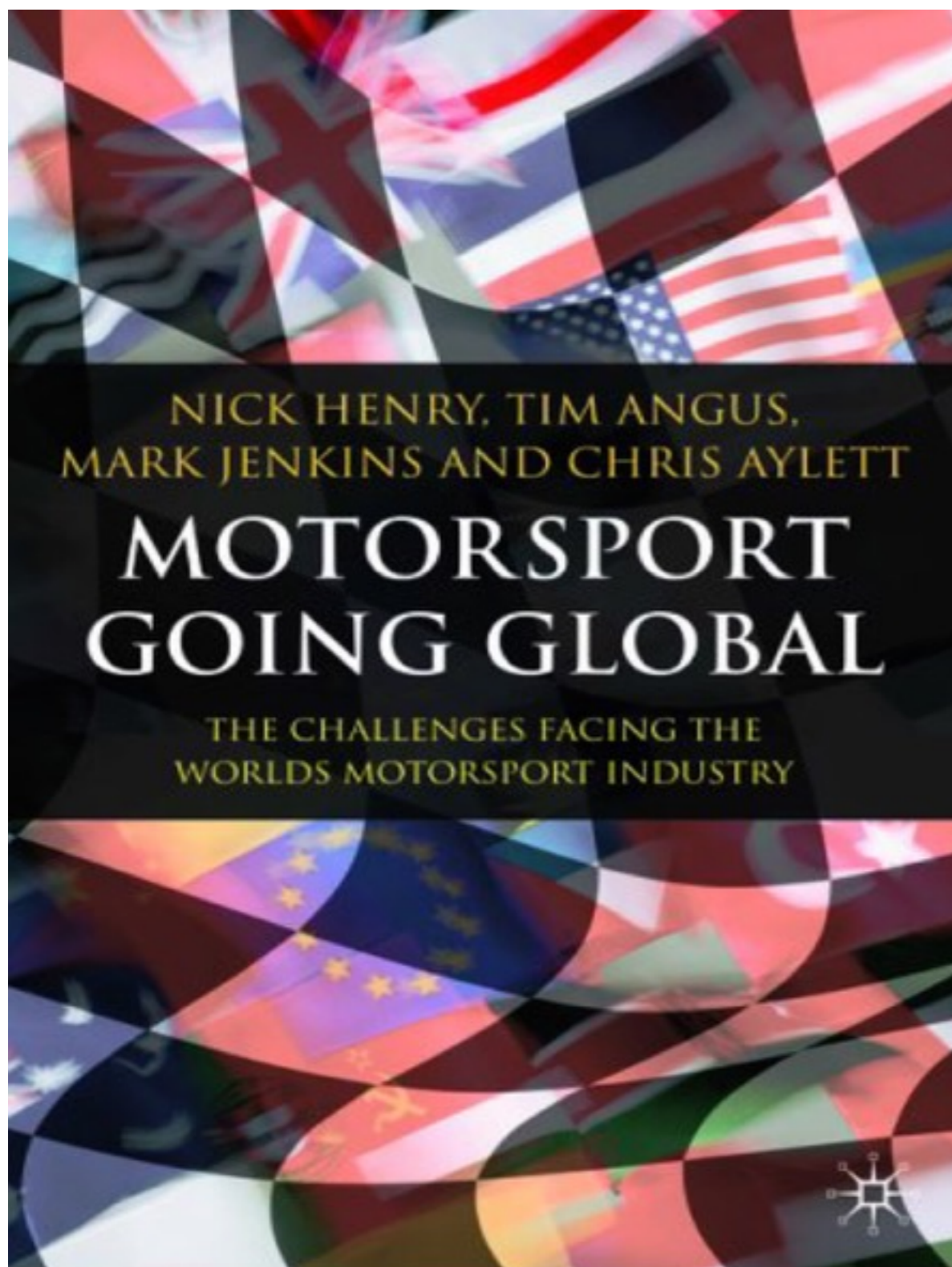
Measurement of motor activity in a range of diseases



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REFERENCES AVAILABLE UPON REQUEST



www.fasttrackinnovation.com

Thank You for your attention
for questions and clarifications:

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