



ROAD SAFETY IMPACT INVESTMENT THE iRAP GLOBAL BUSINESS CASE FOR IMPACT INVESTORS



THE PROBLEM

- 500 million killed and injured between now and 2030
- #1 killer of young people worldwide

THE SOLUTION

- Investment opportunity USD\$1.4 trillion
- 1 in 3 deaths and injuries saved
- 20%+ Internal Rates of Return

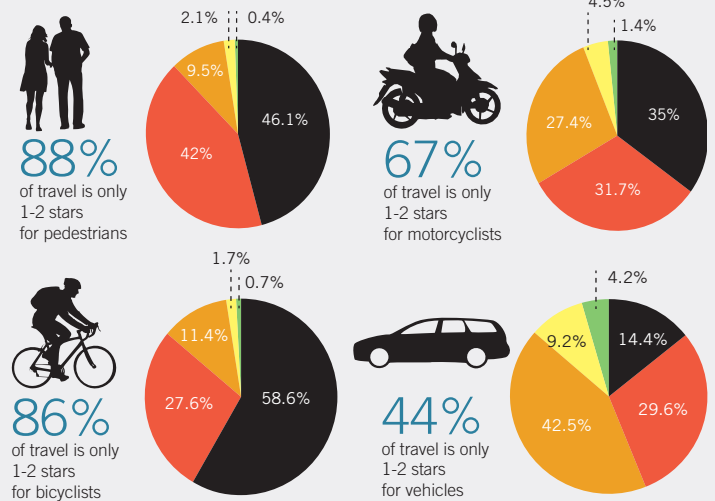
THE NEED

- The UN Sustainable Development Goal 3.6 aims for a halving of road death and injury.
- 16 million people will die and an estimated 500 million people will be injured in road crashes between now and 2030. The majority will be young people.
- The cost will be an estimated USD\$24 trillion.
- Gross under-investment in road safety continues. Only \$1-3 is invested in road trauma prevention for every \$100 of costs.
- Investment does not match the scale of this preventable public health crisis.
- Based on current action, Goal 3.6 will not be met.
- Lives will be lost. Life-long injuries will occur. Families will be changed forever.

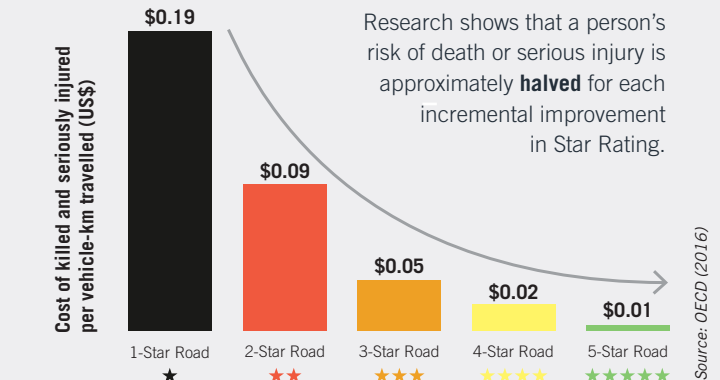
WHERE ARE WE NOW?

- A 1-star road is the least safe and a 5-star road is the safest.
- >40% of the world's roads assessed by iRAP are only 1- or 2-star - unacceptably unsafe.
- Proven and cost effective solutions exist such as footpaths and pedestrian crossings, divided carriageways, safe roadsides, safe turning provision, bicycle and motorcycle lanes, etc.

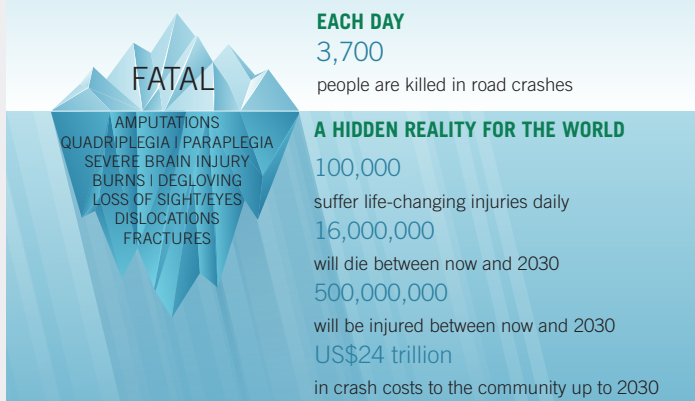
BASED ON 358,000KM OF ROADS ACROSS 54 COUNTRIES:



SOLUTION: A WORLD FREE OF HIGH RISK ROADS



THE GLOBAL CHALLENGE



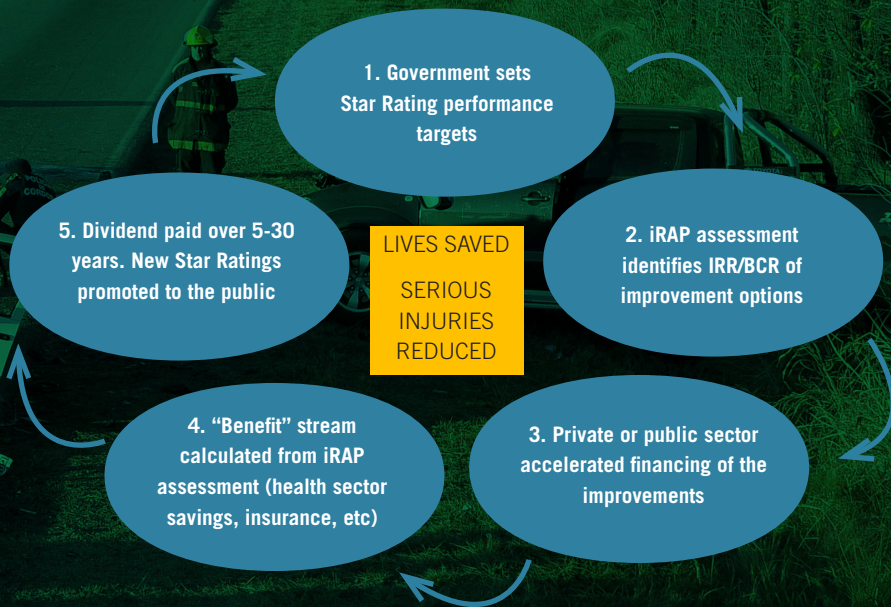
Transport accounts for 70% of spinal cord injury in Africa (World Health Organisation)

43% of major trauma in Victorian hospitals (Australia) is transport related.

(Department of Health, Australia)



IMPACT INVESTMENT MECHANISM



THE BUSINESS CASE FOR SAFER ROADS

For each **\$100** that road trauma costs the community,

only **\$1-3** is currently invested to prevent crashes.

However, unlocking the potential of USD\$1.4 trillion in targeted investment would achieve...

467 THOUSAND lives saved a year

100 MILLION deaths and serious injuries saved over 20 years

20%+ Internal Rates of Return

\$8 SAVINGS for every **\$1 INVESTED**

UN TARGET 4 >75% of travel on roads that meet technical standards for all road users by 2030 (equivalent to 3-star or better)

	Low income	Lower middle income	Upper middle income	High income	ALL
Number of countries	31	45	51	50	177
CURRENT SITUATION					
Annual number of fatalities	195,569	423,148	472,563	116,331	1,207,611
Fatalities per 100,000 population	24.2	17.1	19.6	9.2	17.3
Annual number of fatalities and serious injuries	2,151,259	4,654,628	5,198,193	1,279,641	13,283,721
Annual cost of fatalities and serious injuries (% of GDP)	5.8%	4.2%	4.7%	2%	2.9%
WHAT CAN BE ACHIEVED with >75% of travel on 3-star or better roads for all road users by 2030*					
Infrastructure and Speed Management Investment required	15 bn	140 bn	313 bn	925 bn	1,395 bn
Annual investment as a % of GDP (2018)	0.14%	0.18%	0.12%	0.14%	0.14%
Reduction in fatalities per year	86,342	169,259	174,106	37,332	467,039
Reduction in fatalities and serious injuries (FSI) over 20 years	18,995,159	37,237,024	38,303,352	8,213,036	102,748,571
Economic benefit (\$US)	\$273bn	\$1,335bn	\$5,063bn	\$4,507bn	\$11,180bn
Benefit Cost Ratio	18	9	16	5	8

*Full assumptions and national snapshots are available at vaccinesforroads.org



ROAD SAFETY IMPACT INVESTMENT

How impact investment may be mobilised and the social benefits attained may differ by country income status.

A HIGH INCOME COUNTRY CASE STUDY

THE LANDSCAPE

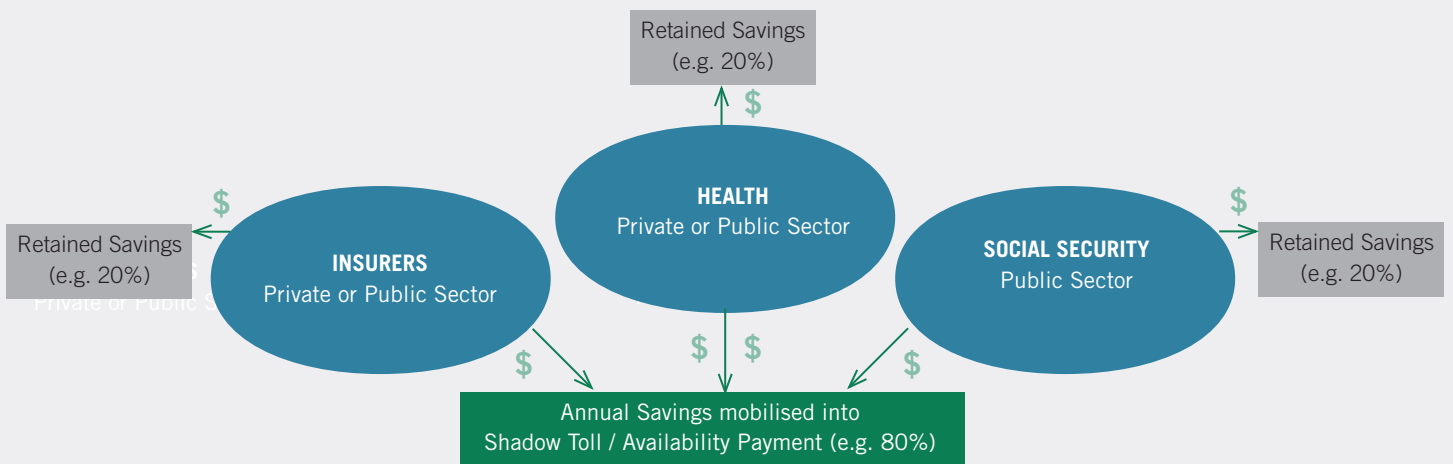
Road trauma costs are covered by:

- third party injury, property damage and life insurance schemes (up to 1% of GDP);
- emergency response and life-time care costs;
- social security and disability benefits;
- families and friends leading to lost productivity and lost tax revenue

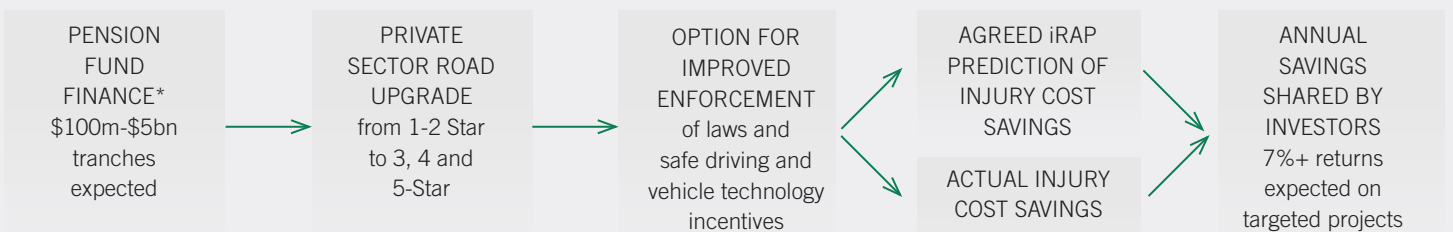
THE SOLUTIONS

- Public private partnerships exist for road infrastructure upgrades for congestion reduction
- The same proven delivery models can be mobilised with safety the primary benefit
- The private sector carry the investment and financing risk for the project
- Benefits based on a combination of predicted iRAP outcomes and actual claim reductions
- A proportion of Road Trauma Cost savings are agreed and mobilised as Annual Income Streams / Availability Payments or through a Road Safety Impact Bond

THE ANNUAL INCOME STREAM - HIGH-MIDDLE INCOME COUNTRY



THE INVESTMENT STRUCTURE



*Road Safety Impact Bonds similar to Green / Climate Bonds can be established



ROAD SAFETY IMPACT INVESTMENT

How impact investment may be mobilised and the social benefits attained may differ by country income status.

A LOW-MIDDLE INCOME COUNTRY CASE STUDY

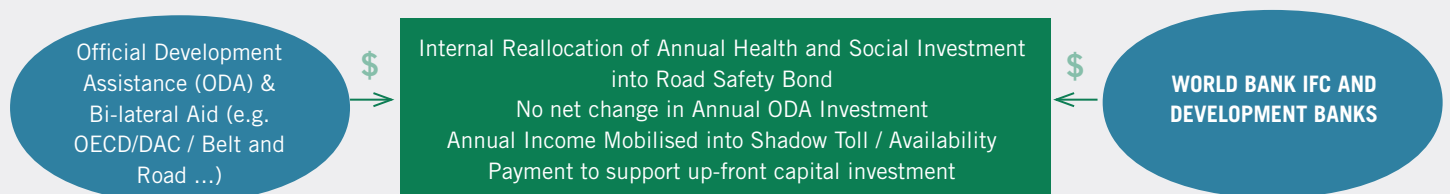
THE LANDSCAPE

- Road trauma costs are not well known or documented at the country level
- Financial governance levels vary greatly within each country
- Bi-lateral and development aid disbursements >US\$300 billion a year¹
- 18.3% of Overseas Development Assistance is for Education, Health and Population and 17.3% is for Economic Infrastructure²
- Development Financing and Grants value financial and social / poverty reduction outcomes³
- Value capture and re-distribution of aid allocations by sector will have no net increase in total aid disbursements

THE SOLUTIONS

- Public private partnerships exist for road infrastructure upgrades in most countries
- The same proven delivery models can be mobilised with safety the primary benefit
- Footpaths for pedestrians; Dual carriageway roads; Safe roadsides; Safe speeds are examples of treatments that will deliver on the UN Target for 3-star or better roads
- The private or development sector carry the investment and financing risk for the project
- Benefits based on the predicted and agreed iRAP outcomes
- A reallocation of the annual health and social cost savings provides the income stream to support the Road Safety Bond and/or up-front capital investment

THE ANNUAL INCOME STREAM - LOW-MIDDLE INCOME COUNTRY



THE INVESTMENT STRUCTURE



¹ <http://www.oecd.org/dac/stats/idsonline.htm>

² <https://www.oecd.org/dac/stats/aid-at-a-glance.htm> - detailed chart available [here](#)

³ <https://www.ifc.org/impactprinciples>

*Road Safety Impact Bonds similar to Green / Climate Bonds can be established



Because every life counts.



A world free of high risk roads: #3StarorBetter

icanhelp@irap.org [irapsavinglives](#) [iRAPfb](#)

The International Road Assessment Programme is a global registered charity. iRAP partners with mobility clubs, governments, funding agencies, research institutes and other non-government organisations in more than 90 countries to provide the tools and training to make roads safe. **Registered Charity Number:** 1140357 **Registered Office:** 60 Trafalgar Square, London, WC2N 5DS, United Kingdom **Published:** May 2019