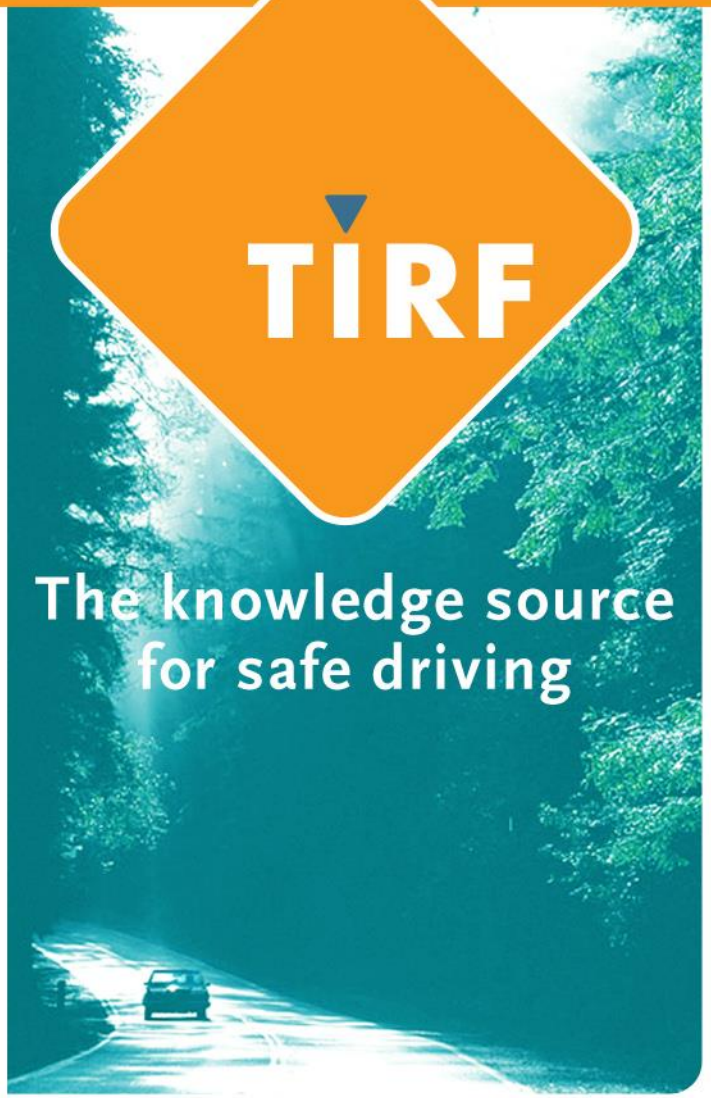
TRAFFIC INJURY RESEARCH FOUNDATION

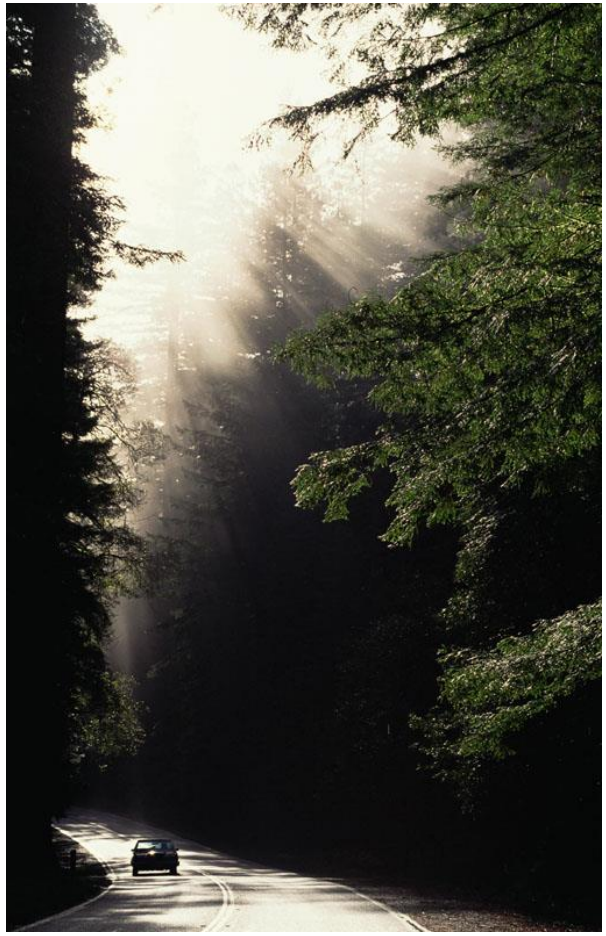


Knowledge translation & road safety management: Using research to inform decision-making

Robyn Robertson, MCA
President & CEO
Traffic Injury Research Foundation
XIII PRI World Congress
Gammarth, Tunisia, May 5th, 2017

About TIRF

- National, independent road safety research institute
- Registered charity
- Governance
- Funding
- Staff
- Mission and focus
- Services and activities



Overview

- Road crashes as a public health problem.
- Frameworks for road safety solutions.
- Importance of knowledge transfer and mobilization in road safety.
- How TIRF uses its own knowledge transfer model to inform decision-making.
- Lessons learned.

Road safety management

- **Road crashes are a leading public health problem worldwide:**
  - trends in deaths and injuries;
  - a leading cause of death for ages 16-24;
  - 80% driver error;
  - common problem driver behaviours transcend national boundaries.

Road safety management

- **United Nations: Pillars of the Decade of Action**

National activities				
Pillar 1 Road safety manage-ment	Pillar 2 Infra-structure	Pillar 3 Safe vehicles	Pillar 4 Road user behaviour	Pillar 5 Post crash care response

- Develop a national strategy coordinated by the lead agency through confirming long-term investment priorities; set realistic targets.

*A Decade of Action 2010

Barriers to management

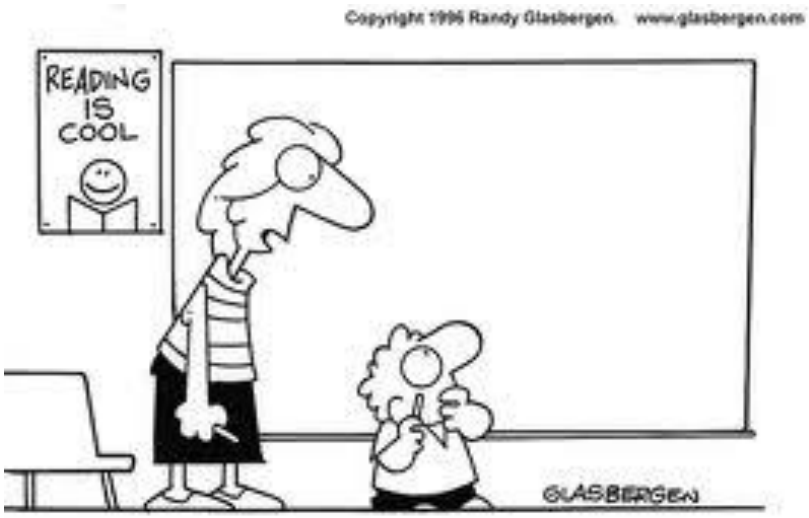
- **Intersecting systems:**
  - transportation and licensing;
  - medicine and public health;
  - engineering;
  - criminal justice.
- **Emerging trends:**
  - research;
  - technology;
  - policy.

Barriers to management

- **Multidisciplinarity:**
  - neuroscience and brain development
  - occupational therapy
  - adult education
  - risk assessment
  - behaviour modification
  - engineering and design
  - road ecology and environment
  - data mining and artificial intelligence
  - policy and legislation

Knowledge transfer

- Research must be translated and used in the real world to improve social life.
- Knowledge transfer (KT) science spans at least 50 years and 14 disciplines.
- Research to develop/ evaluate theoretical models is underway.
- A relatively new issue in road safety and its complexity makes it more challenging to address.



"There aren't any icons to click. It's a chalk board."

Knowledge transfer

- KT is a process to ensure rigorous/sound research is effectively communicated to appropriate audience to inspire/motivate them to alter behaviour in real world to improve outcomes.
- KT is "a dynamic and iterative process to synthesize, disseminate, exchange and ethically apply knowledge".

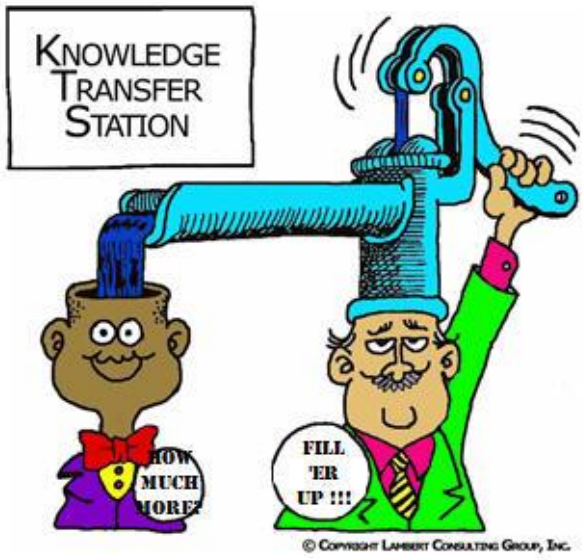
  *Canadian Institutes for Health Research (CIHR).
- Key features of definitions:
  - organizations are inherently resistant to change;
  - new knowledge is not spontaneously used or widely adopted;
  - knowledge must be filtered/distilled to be usable.

Knowledge transfer

- **Target audience rarely queried or consulted:**
  - Practitioners rarely consulted about KT initiative resulting in limited uptake.
- **Models are generally linear, cyclic or sequential:**
  - Fail to account for ongoing, iterative nature of KT process; negotiation is a critical element.
- **Models are discipline-specific:**
  - Researchers/practitioners inherently operate in silos; overlook relevance of their work to others.
  - Limited utility to address complex social issues.
- **Models are analogous to a "black box":**
  - Explain what happens but not how.

TIRF KT model

- **TIRF model was developed after working with practitioners for more than a decade.**
- **Based on several theories:**
  - planned behaviour/action
  - social interaction
  - knowledge utilization
  - networks
  - knowledge brokers



- **Model is based upon four distinct and independent yet inter-connected streams of activity.**

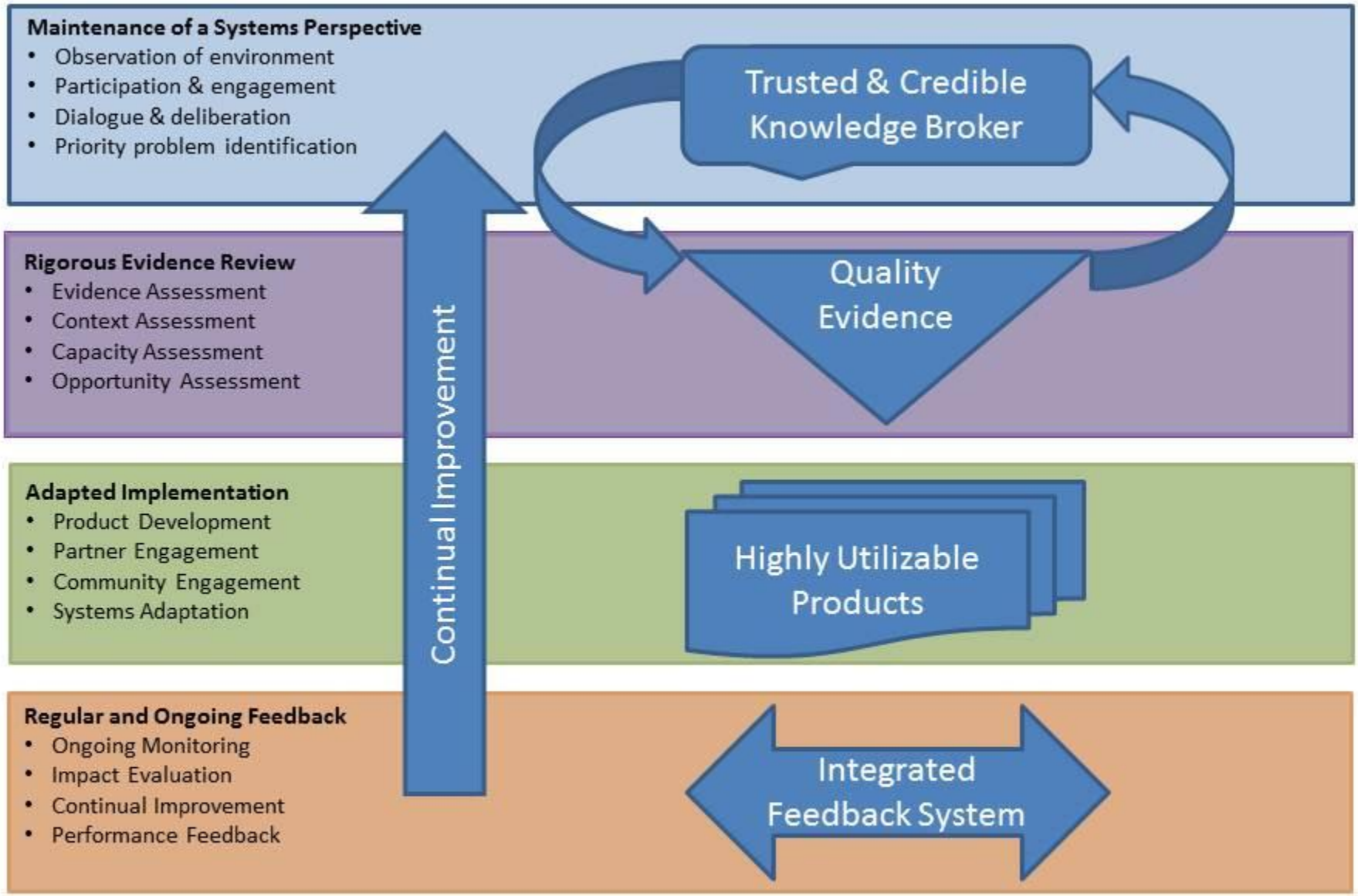


Figure 1: Traffic Injury Research Foundation Knowledge Transfer Model

Unique features

- **Selection of topics and activities:**
  - Driven by and determined in consultation with practitioners.
  - Ability to understand issue from multiple perspectives to more precisely focus strategy and activities.
- **Consideration of context, systems, environment:**
  - Complex adaptive view of road safety; neither linear nor cyclical.

Unique features

- **Multi-disciplinary approach:**
  - Careful attention to diverse terminologies/practices, competing priorities, delivery mechanisms.
  - More challenging but more rewarding.
- **Does not assume pre-determined outcome:**
  - Emphasis on providing options and alternatives.
  - Decision-making is not purview of researchers and the application of findings is complex.
  - Credibility of researchers is based on their understanding of context/environment and also their ability to separate their opinions from their knowledge.

TIRF KT samples

Canadian Coalition on
DISTRACTED DRIVING
.....
Coalition canadienne contre
LA DISTRACTION AU VOLANT


FONDATION DE RECHERCHE SUR LES BLESSURES DE LA ROUTE

PROCHAINE ÉTAPE

DISTRACTION AU VOLANT : PLAN D'ACTION NATIONAL

Fondation de recherches sur les blessures de la route, février 2017

La Coalition canadienne contre la distraction au volant (CCDV) est issue d'un partenariat réunissant 24 organismes essentiels provenant des milieux suivants : gouvernements, services de police, santé, secteur privé et collectivités. Lors de leur première rencontre en 2016, les membres de la CCDV ont examiné un éventail de priorités servant à définir les outils potentiels que les organismes pourront utiliser pour élaborer des stratégies afin de prévenir la distraction au volant. Bien sûr, il existe aussi d'autres lacunes dont il faudrait tenir compte. Toutefois, les éléments du Plan d'action national qui ont été sélectionnés représentent les principales actions qui peuvent le mieux répondre aux besoins des divers organismes intéressés par la question. Certaines tâches du plan sont reprises pour chaque organisme, puisqu'il n'y a pas de mécanisme naturel de partage des données, ce qui entraîne une perte de temps et d'argent. Grâce à leur expertise, les membres de la CCDV peuvent aider les employés de ces organismes à s'acquitter de leurs tâches plus efficacement.

Il est essentiel, soulignons-le, que l'action coordonnée commence maintenant, vu la gravité du problème et les répercussions négatives qu'il pourrait entraîner si rien n'est fait. Quand il y a surcharge de travail, réduction de postes et demande massive, l'étape la plus difficile pour effectuer un processus de changement est de commencer. C'est pourquoi la FRBR, D.I.A.D et Co-operators, ainsi que les membres de la Coalition canadienne contre la distraction au volant s'engagent à aider les organismes à franchir la première étape. Au cours des six prochains mois, la coalition créera une série d'outils pour guider et aider les organismes dans leurs efforts respectifs. Ces outils seront offerts aux organismes du Canada pour leur inspirer des actions et étayer l'élaboration de leurs stratégies pour lutter contre la distraction au volant et rehausser la sécurité routière.

Le Plan d'action national comporte les 15 éléments suivants:

Éducation et prévention

1. Créer une fiche descriptive qui résume les résultats de la recherche sur les stratégies de changement de comportement efficaces, notamment les habitudes et les stratégies pour les modifier, afin d'appuyer les programmes sur la distraction au volant.
2. Résumer les sujets de discussion essentiels que les intervenants peuvent aborder auprès du public et dans les médias pour encourager l'utilisation de la terminologie appropriée pour décrire les collisions.
3. Préparer une fiche descriptive que les intervenants peuvent utiliser lors de leurs communications dans les médias pour expliquer l'ampleur du problème de la distraction au volant, ses conséquences et ses coûts.
4. Créer un répertoire sur la distraction au volant contenant l'information pertinente et une trousse d'outils connexe, pour faire connaître les pratiques basées sur des données probantes auprès des intervenants et des décideurs.

La source du savoir pour la conduite sécuritaire

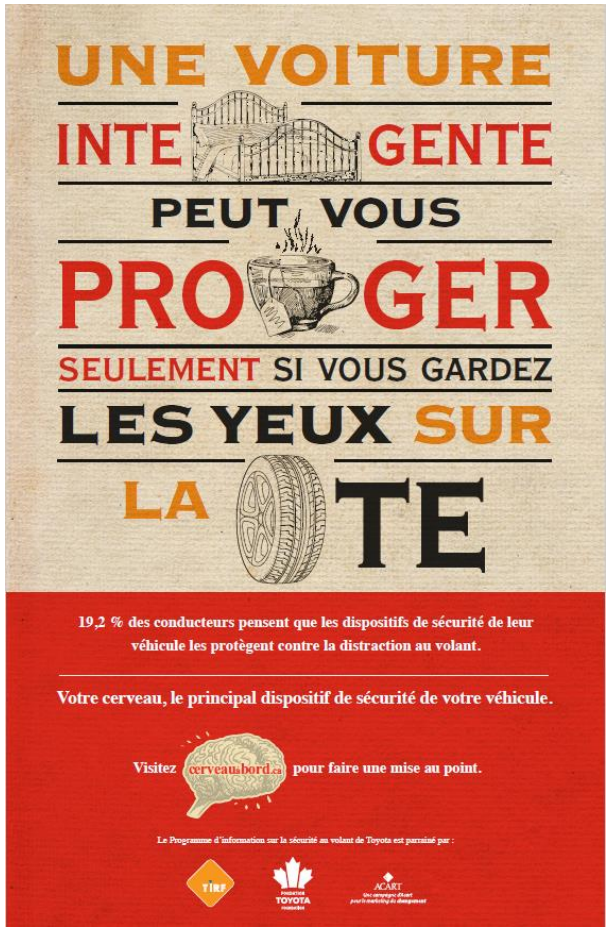
DRUG-IMPAIRED DRIVING
LEARNING CENTRE

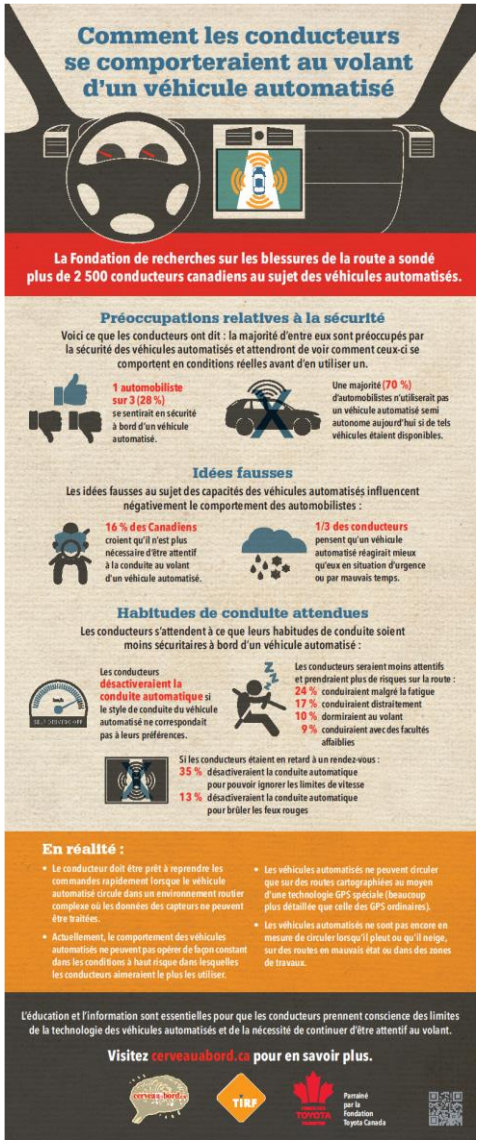
Knowledge informing strategies

CENTRE D'ÉTUDES SUR LA CONDUITE AVEC FACULTÉS AFFAIBLIES PAR LES DROGUES

Consolider la connaissance pour élaborer des stratégies

TIRF KT samples





Key features of materials

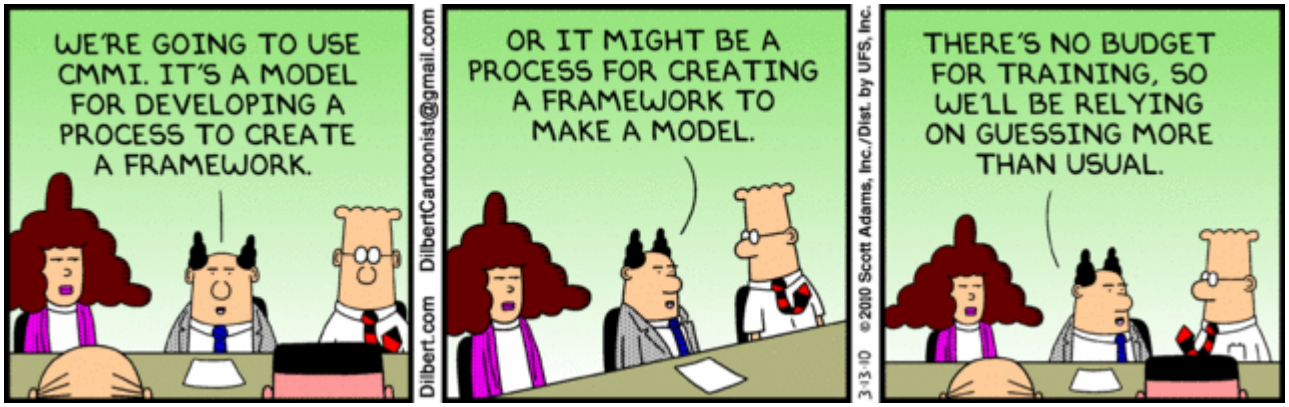
- Core component of project development.
- Critical review of relevant research drawing upon key disciplines.
- Place findings in context of systems and practice.
- Peer review by researchers/practitioners.
- Tailor to audience.
- Emphasis on commonalities and consensus to encourage progress.
- Use of positive messaging and social norming.

Lessons learned

- Show up often, participate, and listen to understand practitioner concerns, perspectives, experiences before drawing conclusions.
- Do not impose own experiences and frame of reference on issues.
- Identify specific goals but retain flexibility to adapt to changing conditions across systems.
- Engage in continuous dialogue with thought leaders and practitioners.
- Do not underestimate value of good visuals.

Conclusions

- Profound consequences of failing to pursue KT are evident throughout history.



- Shortcomings of KT today are more due the silo mentality that divides researchers/practitioners than the fact that research is unavailable or considered irrelevant to decision-making.

Conclusions

- Effective road safety management relies upon emerging evidence across disciplines.
- Knowledge transfer can build partnerships to facilitate data collection and access.
- Knowledge transfer shapes and underscores the relevance of road safety research to inform practice, and added much-needed context to inform decision-making in a policy environment.
- Researchers play a critical role in the knowledge transfer process to ensure research results are correctly interpreted in the decision-making process.

Connect with us!

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