

The background is a photograph of Melbourne Central Station, a historic building with a large green dome and classical architectural details. A modern skyscraper is visible in the background to the left. A large, white, stylized logo 'ort' is superimposed over the center of the image. The letters are thick and rounded, with the 'o' and 't' having a slightly irregular, hand-drawn feel. The 'r' is also thick and rounded. The overall image has a slightly desaturated, teal-tinted appearance.

ort

Shaping Our Transport Future

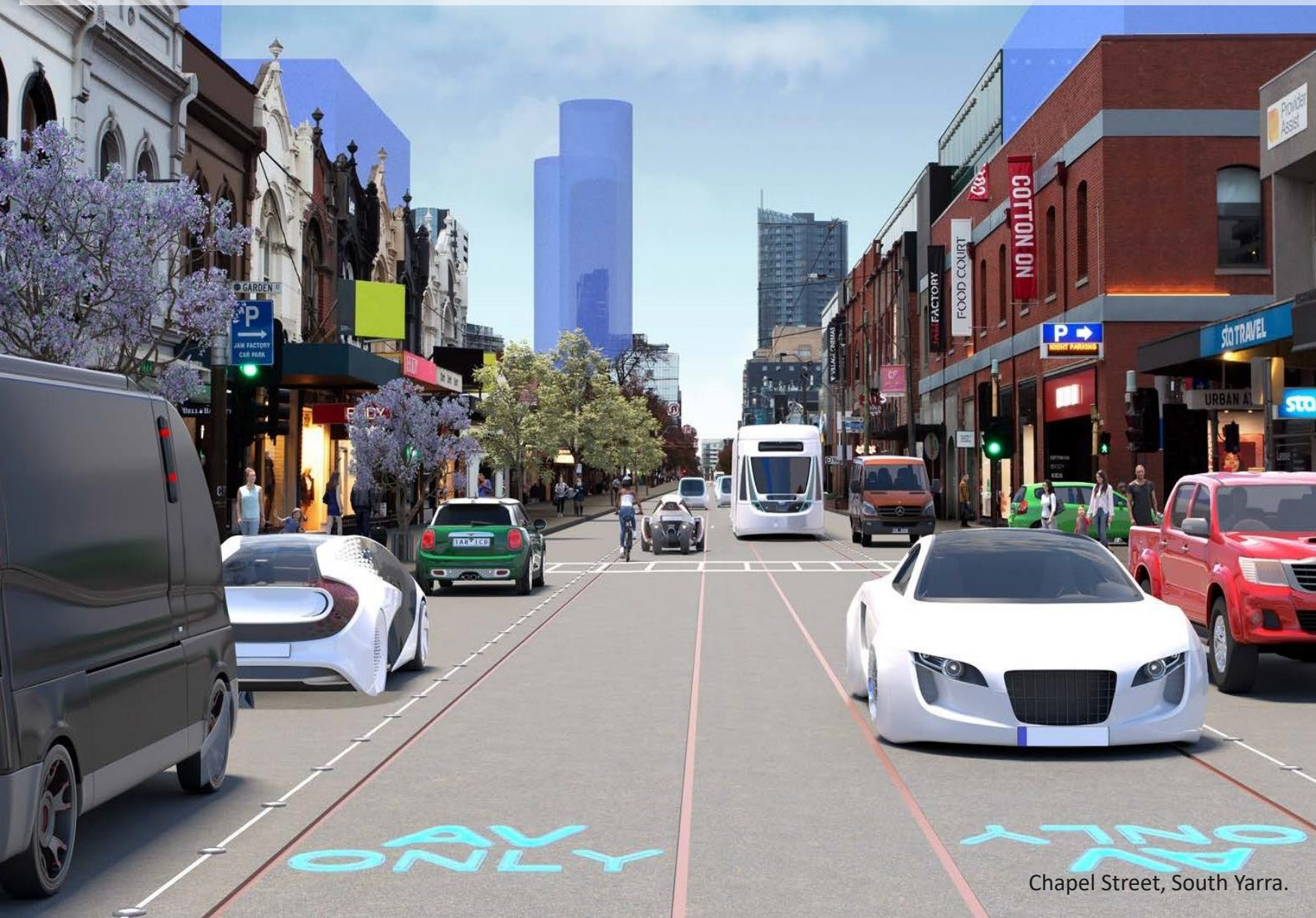
Dr Richard Yeo Chief Operating Officer

Future Transport Landscape

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It's time for an Infrastructure “RESET”



Chapel Street, South Yarra.

- Mobility as a Service
- Connected and Automated
- Shared spaces
- Innovative vehicles
- Last mile mobility
- Safety
- Sustainability
- New Economy



Road Corridors
of today, are set to
be mobility corridors
of tomorrow



New Journeys : New Vehicles



arbo

YOUR NATIONAL TRANSPORT
RESEARCH ORGANISATION



Connected Journeys



What ARRB Does

FUTURE TRANSPORT INFRASTRUCTURE



Research Labs



Pavement & Materials



Specifications



Guidelines

FUTURE TRANSPORT SYSTEMS



Smart Traffic
Management



Network Operations
Planning



Intelligent Transport
Systems Assets



Advanced Mobility
Technologies

TRANSPORT SAFETY



Transport Safety
Policy



Transport User
Behaviour



Safe Road
Infrastructure



Safe Mobility

SUSTAINABILITY AND RESILIENCE



Resilient Transport
Systems



Sustainable Transport
Planning



Freight & Logistics



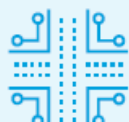
Transport Policy

ASSET MANAGEMENT

DATA COLLECTION AND ANALYSIS



Data Collection



Infrastructure
Performance



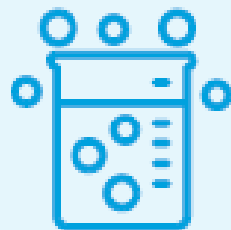
Intelligent Asset
Management



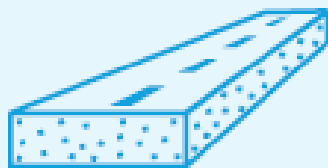
Transport economics

ARRB's Expertise

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ARRB's Expertise

Future Transport Infrastructure

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Optimised heavy duty pavement
Full scale pavement
performance testing

Low cost all weather roads
Use of marginal materials




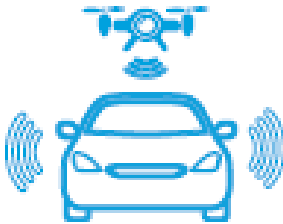


FUTURE
TRANSPORT
INFRASTRUCTURE




Research Labs
 Pavement & Materials
 Specifications
 Guidelines

FUTURE
TRANSPORT
SYSTEMS

Smart Traffic Management
 Network Operations Planning
 Intelligent Transport Systems Assets
 Advanced Mobility Technologies

TRANSPORT
SAFETY


Transport Safety Policy
 Transport User Behaviour
 Safe Road Infrastructure
 Safe Mobility





SUSTAINABILITY
AND RESILIENCE






Resilient Transport Systems
 Sustainable Transport Planning
 Freight & Logistics
 Transport Policy

ASSET
MANAGEMENT

Data Collection
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 Intelligent Asset Management
 Transport economics

ARRB's Expertise

Commute from hell

KIERAN ROONEY

MOTORISTS in Melbourne's north are the most likely to be fed up with their trip to work, with new research mapping the city's most frustrating commutes by car.

The newly launched National Transport Performance Centre, with joint state and federal government funding, has collected years of data on our road network to determine which routes are most likely to drive people up the wall.

Travel times, traffic levels, road conditions and crash statistics were all used to create a frustration index authorities could now use to target

Northside workers face worst drive

infrastructure funding more effectively.

Commutes travelling through the inner-north through High St and Brunswick St ranked highest but were followed closely by routes through Narre Warren, Craigieburn, Vermont South and Berwick.

Australian Road Research Board chief executive Michael Caltabiano said the results would come as a surprise to many motorists.

"You ask people where they reckon the maximum frustration will be and everybody will say the Monash," he

said. "But that's not true. It's actually the north to south route coming into the city.

"That information needs to inform our policymakers about where the investment needs to be. Ultimately, we serve the community and frustrated drivers become dangerous drivers."

In the southeast, traffic coming from Narre Warren through the Princes Highway and Berwick, through Lower Dandenong Rd, ranked highly for congestion, rough roads and heavy delays.

But drivers were most likely to be enraged by highly con-

gested and older corridors in the north such as the Greensborough Bypass, Sydney Rd and High St.

Mr Caltabiano said the centre now had traffic speed, volume and safety data for every single road in the country and would use it to find new solutions to traffic snarls.

"Our aim is take 35 minutes off people's journeys," he said.

"The first task is to provide for each of the capital cities in Australia, and the major regional cities an indication of what problem they're really trying to solve."

kieran.rooney@news.com.au



SIX MOST FRUSTRATING TRIPS

- 1 From Preston via High St and Brunswick St
- 2 From Narre Warren via Princes Highway
- 3 From Craigieburn via Sydney Rd and Citylink
- 4 From Doreen via Greensborough Bypass and Heidelberg Rd
- 5 From Vermont South via Burwood Hwy and Toorak Rd
- 6 From Berwick via Lower Dandenong Rd and Beach Rd

National Transport Performance Centre

Source: Herald Sun 26 August 2019

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DATA COLLECTION
AND ANALYSIS

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Infrastructure Performance

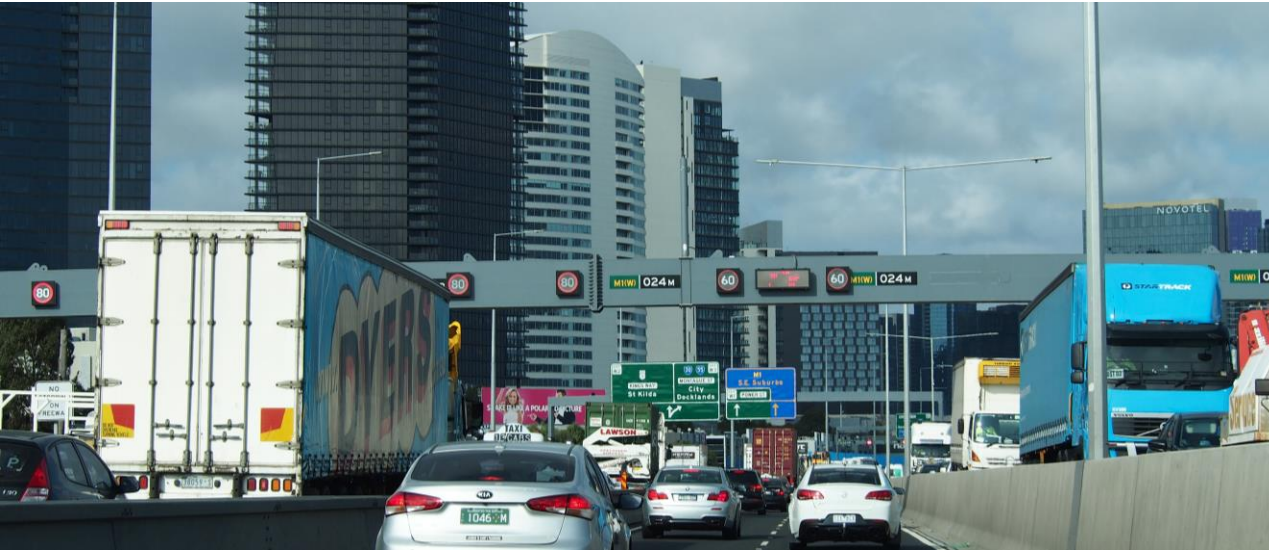
Intelligent Asset Management

Transport economics

ARRB's Expertise

Safe System approach

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Safe drivers
Safe speeds

Safe vehicles
Safe roads



FUTURE
TRANSPORT
INFRASTRUCTURE

Research Labs Pavement & Materials Specifications Guidelines

FUTURE
TRANSPORT
SYSTEMS

Smart Traffic Management Network Operations Planning Intelligent Transport Systems Assets Advanced Mobility Technologies

TRANSPORT
SAFETY

Transport Safety Policy Transport User Behaviour Safe Road Infrastructure Safe Mobility

SUSTAINABILITY
AND RESILIENCE

Resilient Transport Systems Sustainable Transport Planning Freight & Logistics Transport Policy

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MANAGEMENT

DATA
COLLECTION AND
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Data Collection Infrastructure Performance Intelligent Asset Management Transport economics

ARRB's Expertise

Roads & Infrastructure

SMART MATERIALS AND RECYCLED MATERIALS



- Life Cycle Assessment
- Geogrids
- Water capture storage and reuse
- Pollution prevention



- High % RAP
- Examples: Crumb rubber, Glass, Plastics, Fly ash, Slag
- Plastic, modular roads for lightly trafficked or active transport areas




- Self healing asphalt
- Perpetual pavements
- Next Generation Maintenance




- Pavement recycling
- Manufactured aggregates from by products i.e. light-weight aggregates from sintering
- Recycled glass


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Resilient Transport Systems



Sustainable Transport Planning



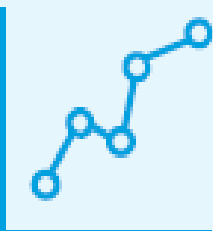
Freight & Logistics



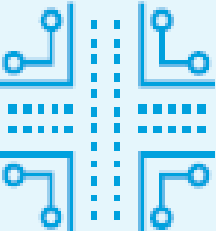
Transport Policy

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Infrastructure Performance



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Transport economics

ARRB's Expertise

iPAVE—intelligent pavement assessment vehicle

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- Allows greater understanding of pavement condition above & below surface
- Data is successfully being used to manage road networks
- Definite safety benefits
- Network level assessment

iPAVE Efficient Infrastructure Mgt Tool



iPAVE — Extensive Data Collection

Since 2014:

- Queensland (90,000km)
- New South Wales (80,000km)
- New Zealand (60,000 km)

2017:

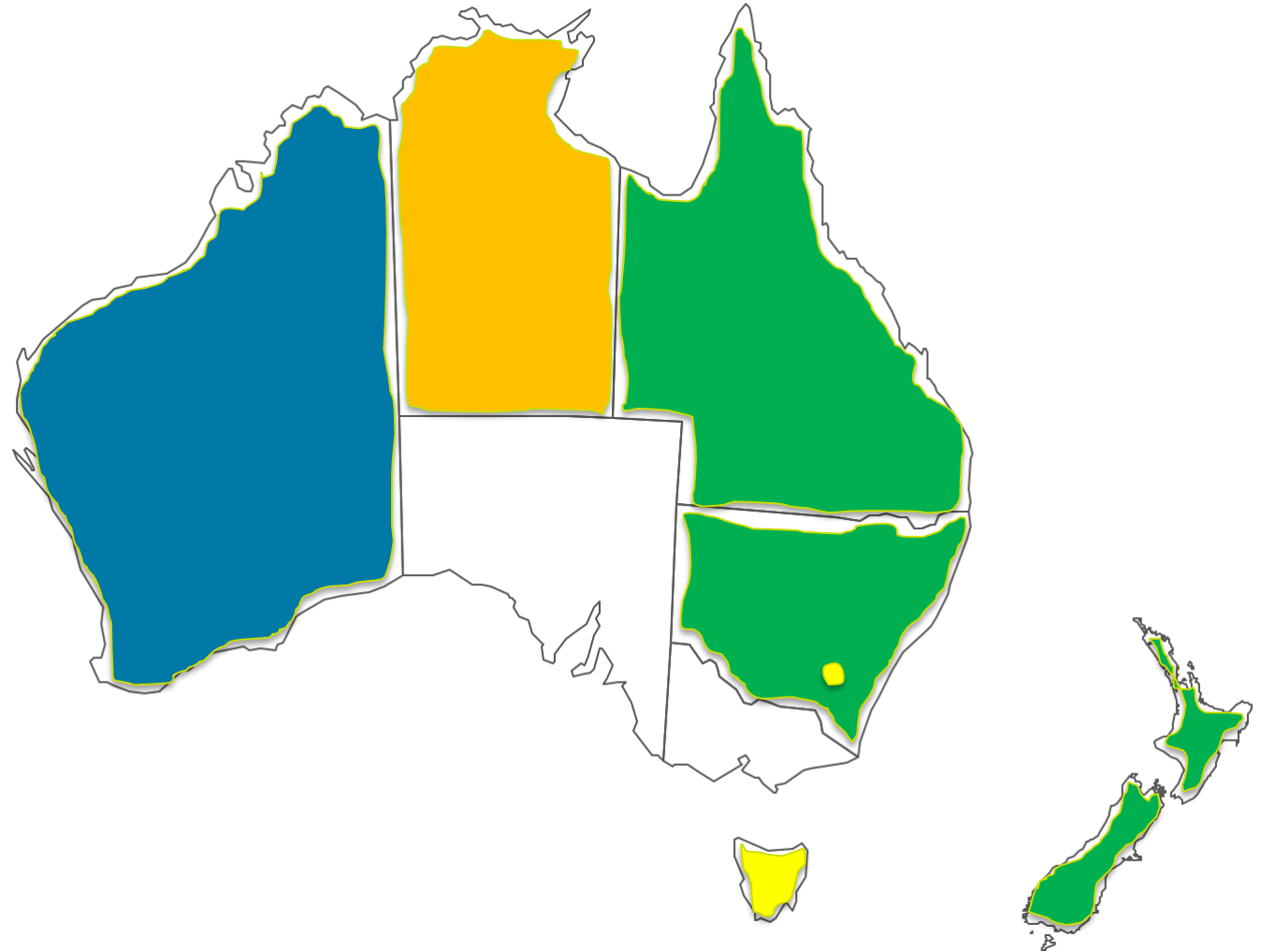
- ACT (200km)
- Tasmania (1,500km)

2018:

- Western Australia (36,000km)

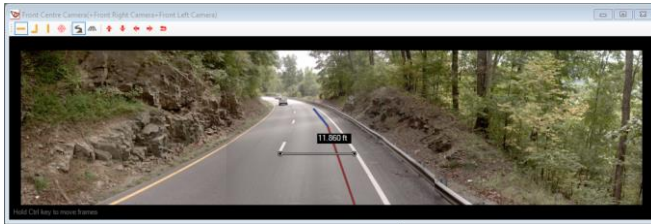
2019:

- NT (12,000km)



iSSAVE - intelligent safety surface assessment vehicle

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+ GNSS DGPS geospatial location

+ Digital imaging system

+ Rutting

+ Texture
Centre and Both wheel
paths



+ Geometry
Cross fall, Grade,
Horizontal and Vertical
curvature



Continuous Friction Response

CAV Readiness: Sample Survey of 1000 km



The vehicle

ARRB network survey vehicle with front facing cameras



The driving task

A survey of 1000 km of priority roads



Our Activities

Research, standards & best practice, knowledge sharing, and partnerships

Research



NRSP
NATIONAL ROAD SAFETY

**PARTNERSHIP
PROGRAM**



**SPARC
Hub**



Austroads



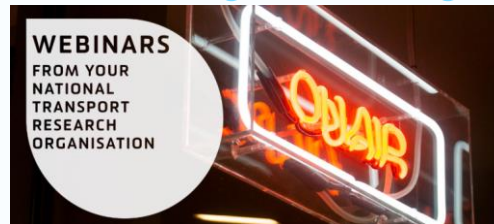
Standards & best practice



Austroads



Knowledge sharing



Partnerships



Australian Government
Department of Infrastructure,
Regional Development and Cities





IN-HOUSE
KNOWLEDGE
TRANSFER
WORKSHOPS

Expert
knowledge
delivered
to you

FIND OUT MORE
ARRB.COM.AU

Upcoming workshops



Unsealed roads



**Bridge
Inspections**



**Smart Pavements
Now**

The image features a solid blue background with a pattern of small white dots. On the right side, several curved lines of these dots sweep across the frame, creating a sense of motion. In the top left corner, the word "arto" is written in a white, lowercase, rounded sans-serif font. Below the logo, a large, light blue, rounded rectangular shape contains the text "SHAPING OUR TRANSPORT FUTURE" in a blue, uppercase, sans-serif font.

arto

SHAPING
OUR
TRANSPORT
FUTURE