EUROPEAN CITIES AND REGIONS NETWORKING
FOR INNOVATIVE TRANSPORT SOLUTIONS

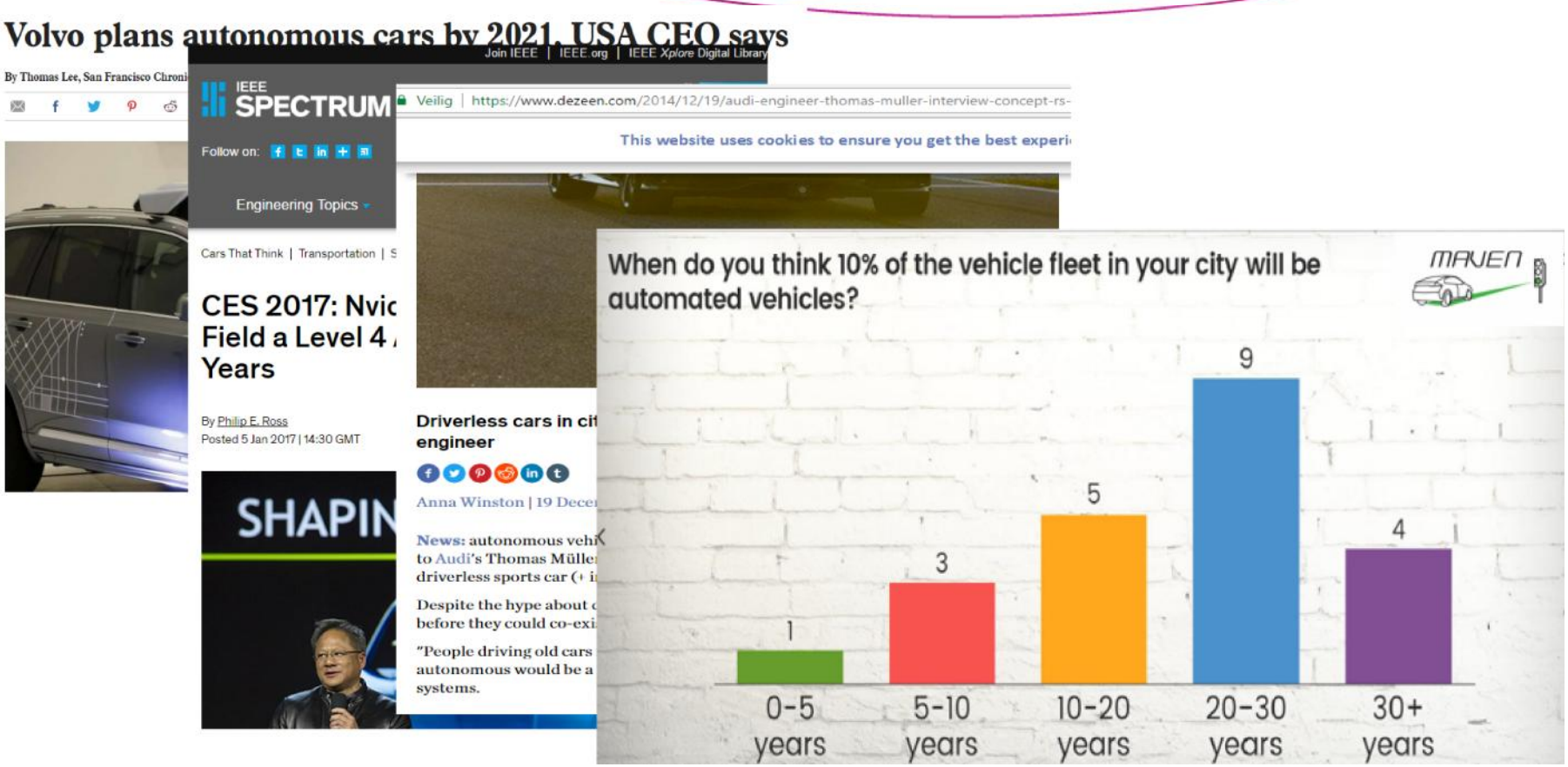
Some preliminary views from European cities and regions on AVs (automated vehicles)

Suzanne Hoadley, Polis

Why a paper on AVs?

- **Concern about optimism bias**
- **Only the potential benefits are highlighted – rarely the potential disbenefits**
- **Creating expectations that automated vehicles will be widely deployed in near future (5-10 years?) and will always work perfectly**
- **AV developments are mainly technology and vehicle driven – few public authorities are engaging**
- **Aims of paper:**
  - Raise awareness and promote reflection about AVs among local and regional authorities
  - Communicate views of cities and regions to policy makers & other AV players
  - Challenge AV sector to develop products and services suited to urban policy context

Does automation really mean automation?



Some possible implications of AVs

Travel behaviour

- Worst case: projected increase in kms travelled
- Best case: removal of private cars in favour of shared mobility + public transport, combined with walking & cycling
- Prerequisites for best case
  - Massive modal shift: not easy given attachment to car for independent mobility
  - Level 5 automation (not realistic in medium-term)
  - Redundancy of fleet vehicles during off-peak: unrealistic given fleet manager drive for economic efficiency

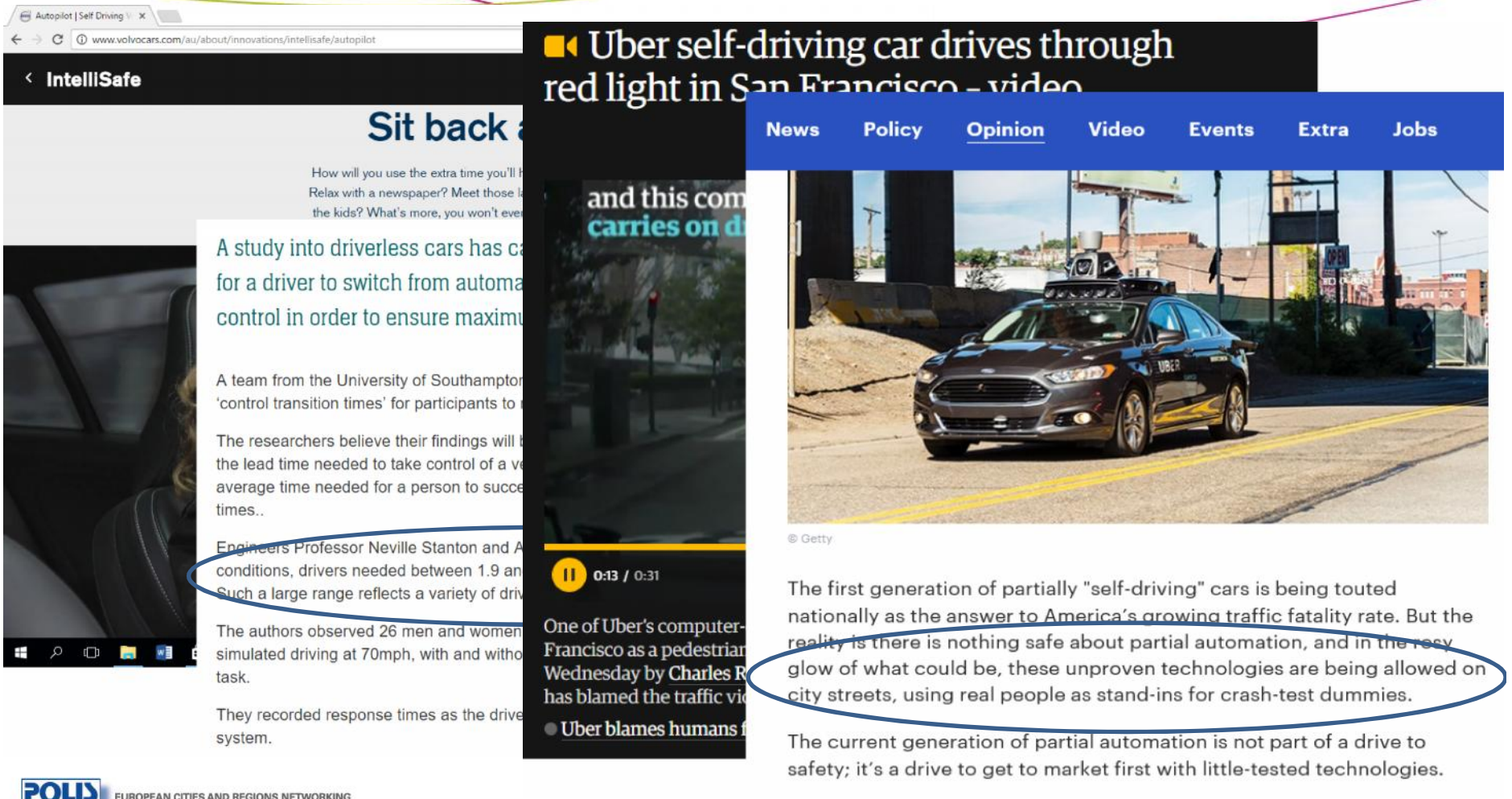
Some possible implications of AVs

- **Spatial**
  - Some off and on-street parking could become redundant - but newly created road space must be put to other functional uses
  - Urban sprawl and longer commuting trips
- **Social**
  - Enhance accessibility to persons with limited transport access by reducing cost of service provision
  - Risk of increased social division and inequality if market-driven approach
- **Road safety**
  - Reduction of driver distraction
  - Technology infallibility?
  - Interaction with non-automated road users, especially VRU
  - Ethical issues
  - Road signs interpreted in context

Some possible implications of AVs

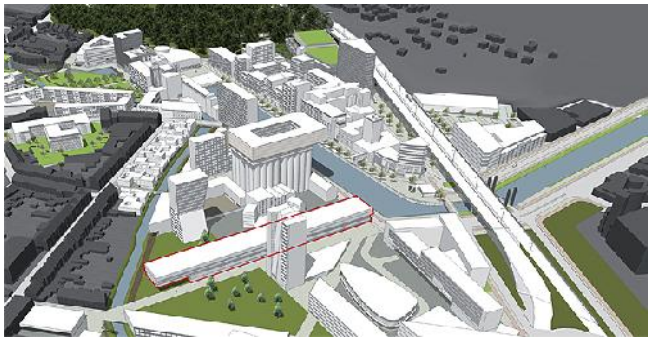
- **Traffic efficiency**
  - Richer data for traffic and asset management
  - Road space management - “More pain than gain” in short-medium term due to co-existence and higher safety margins
- **Infrastructure**
  - Investments depend on AV implementation path: autonomous, CAV or systems-approach
  - Where significant investments required, new business models must be found

Partial automation – is it really safe and what are the benefits in urban areas?



Automated vehicles – aspects transport authorities need to explore

Urban planning & development

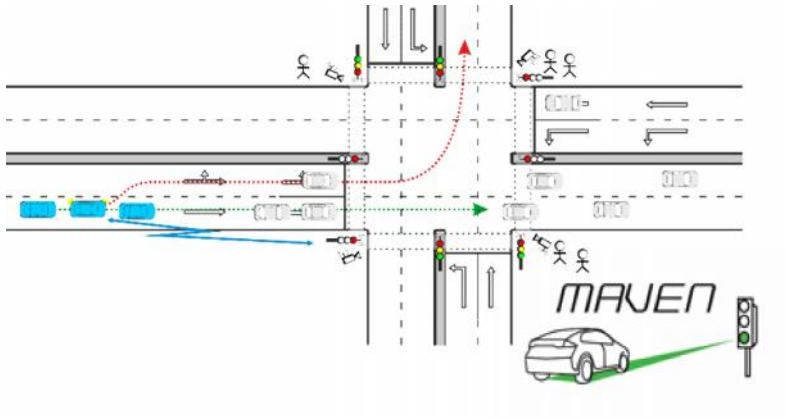


AV services rather than tech.

VRU safety

Tackling predicted growth in trips/km driven

Traffic management implications



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Preliminary recommendations

- City and regional authorities should build and implement AV policies to guide their introduction in the most effective manner
- A structured dialogue between the public sector and AV industry needs to be established
- Research on the potential impacts of AV on urban and regional transport is needed (travel behaviour, VRU interaction/safety, infrastructure implications, new transportation services, etc)
- EU and national policy on AV should give greater consideration to sustainable urban mobility policy

Suzanne Hoadley
shoadley@polisnetwork.eu
www.polisnetwork.eu