iTRACT
Improving Transport and Accessibility through new Communication Technologies

Smart Specialisation in Rural Areas

Hugo Velthuijsen
Hanze University of Applied Sciences

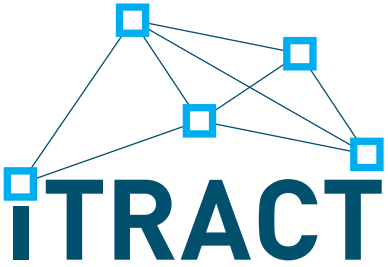
The Interreg IVB North Sea Region Programme
Investing in the future by working together for a sustainable and competitive region

Smart specialisation in rural areas

iTRACT
Improving Transport and Accessibility through new Communication Technologies

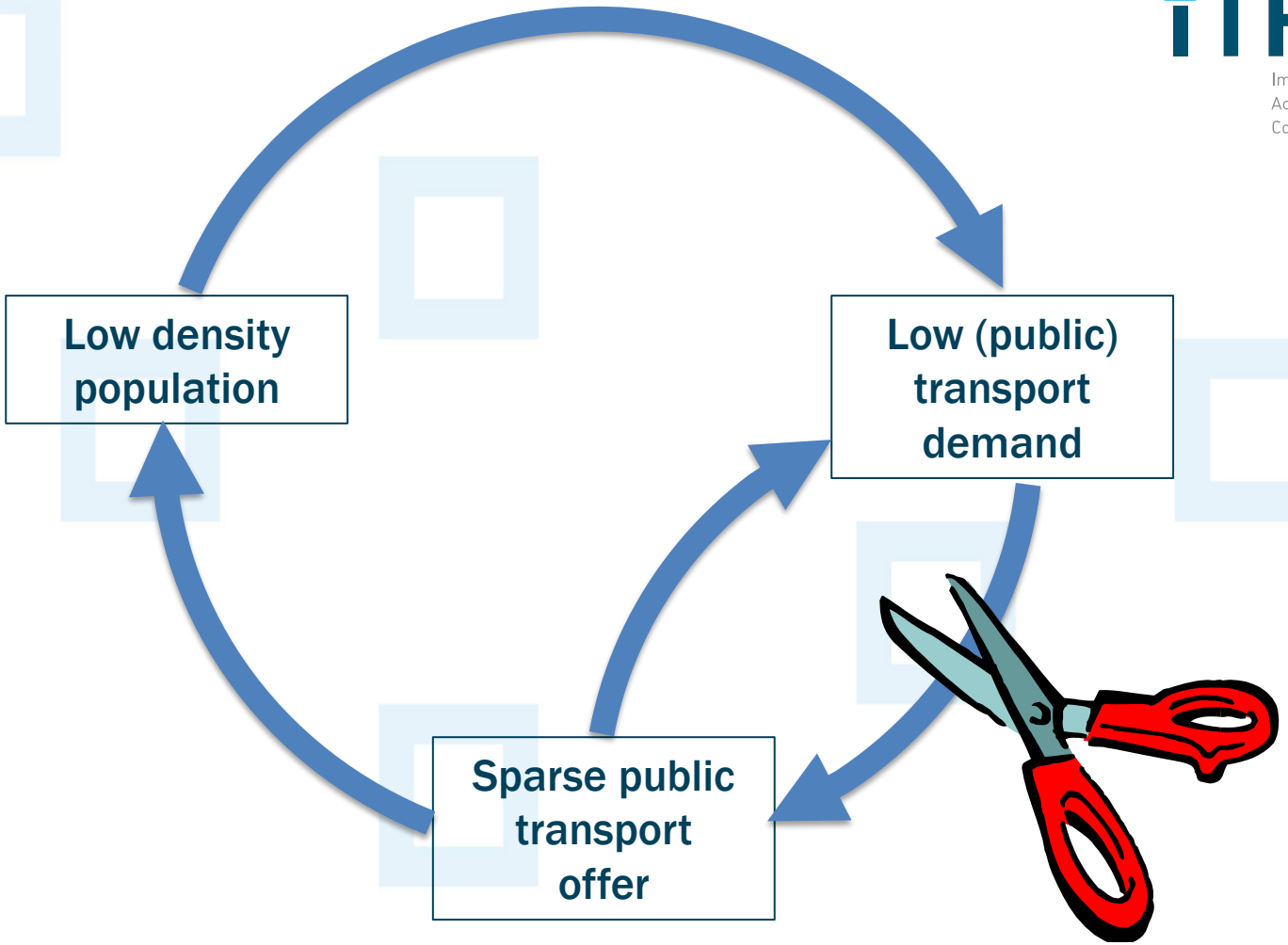
- Ambition of the project: ICT solutions for improving transport and accessibility of rural areas
- 16 Partners
- 5 countries Sweden, Norway, Germany, UK, The Netherlands
- Transport authorities, transport companies, local and regional governments, universities
- 3 years

The future of smart mobility



- Gelderland starts in 2015 with autnomous vehicles
- Driver-less cars and busses
- Economy of sharing: Uber(Pop), AirBnB, Peerby
- Decrease of private car ownership already happening in cities (US)
- Blurring distinction between public and private transport
- Anytime, anywhere, any size
- Technology mostly ready
- Progress hinges on ethical and societal dilemma's

iTRACT
Improving Transport and Accessibility through new Communication Technologies



Vicious cycles of rural transport

iTRACT
Improving Transport and Accessibility through new Communication Technologies

- Few people living; few people using transport; few public transport offerings; less attractive to live and work
- Cutting vicuous cycle
- Smarter use of information leads to smarter transport services
- Smarter transport services offer better service levels in rural areas
- Smarter transport services have positive impact on liveability and economy of rural areas

WEATHER'S NOT BAD, IS IT?

What users want

iTRACT
Improving Transport and Accessibility through new Communication Technologies

- Ask them, but
- Marshall McLuhan: Rearview mirror paradox
- Difficult to know what does not yet exist
- Interactive, iterative, and explorative process of innovation:
  - Creating balance between ‘what is valuable’ and ‘what is possible’; co-creation
  - User empowerment: inviting users to express their interests
  - Design thinking:
  - Personas & user stories
  - Show what is possible

Madre
Lynwood
East Pasadena
Arcadia
Monrovia
Duarte
Azusa
San Marino
Temple City
Mayflower Village
Alhambra
Rosemead
El Monte
West Covina
Monterey Park
Garvey
South El Monte
Walnut Valley
Avocado Heights
La Puente
Hacienda Heights
Rowland Heights

Bus Stop
Rougier Stree
4 Acomb
10 Poppleton
12 Woodthorpe
13 13A Copmanthorpe
24 Acomb
26
37
743 840
844 845
X45

Р П

The innovations

- 40 new applications
- Personalised & Adaptive
- Reactive: using real time information
- Integrating domains
  - Public & private
  - Geography: Regions; countries
  - People and goods
- Clusters
  - Travel planning (multimodal ridesharing and public)
  - Travel updates (traffic jams, delays)
  - Monitoring and optimising
  - Staff support (connection helper)
  - Insight behaviour & change

iTRACT
Improving Transport and Accessibility through new Communication Technologies

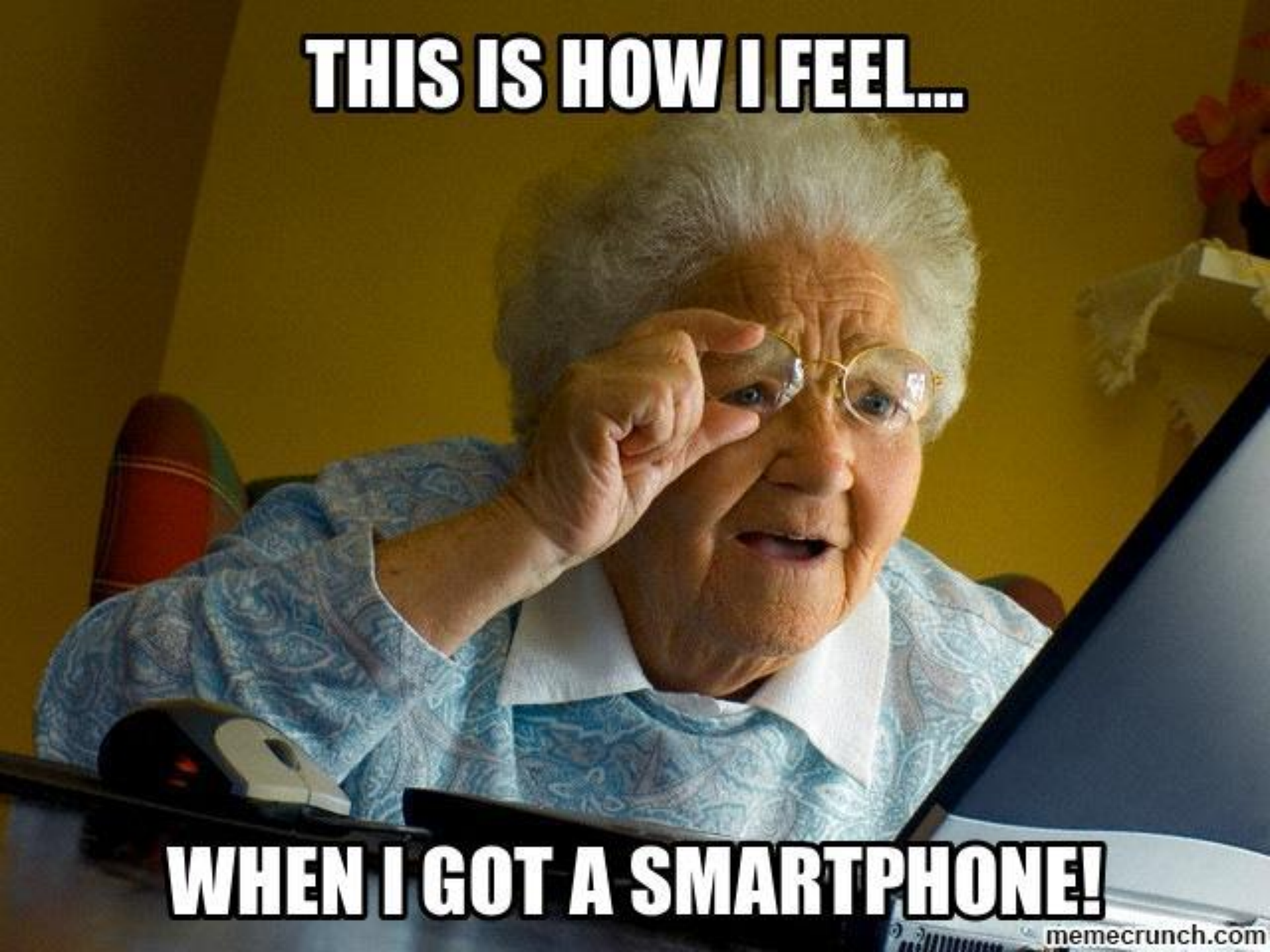
The elephant in the room

iTRACT
Improving Transport and Accessibility through new Communication Technologies

- John Carr (Yorkshire Dales): The elephant in the room
- Assuming ICT as solution for transport in rural areas…
- …where digital infrastructure is often hardly available

- New technology (4G, 5G)
- Government interference
- Compounded business models

- No smart solutions without digital connectivity


THIS IS HOW I FEEL...
WHEN I GOT A SMARTPHONE!
memecrunch.com

Digital maturity (ability)

iTRACT
Improving Transport and Accessibility through new Communication Technologies

- Elderly, disadvantaged less often car owners: target groups
- Some of these target groups are not used to IT, including smart phones, Internet, Facebook, Twitter, etc.: digital divide
- Creating ICT based solutions deepens the digital divide
- Very personalised approaches to engage less digitally mature

Social innovation (willingness)

iTRACT
Improving Transport and Accessibility through new Communication Technologies

- Community thinking: ridesharing
- Changing behaviour: plan and share; not ‘just go’
- Matching demand and supply

- When government retreats; communities need to step up
- Organising social innovation
  - Leaders
  - Doers
  - Training

IT maturity (ability)

iTRACT
Improving Transport and Accessibility through new Communication Technologies

- Vision on what is needed and possible with ICT
- Set targets and reserve funds
- Source the right ICT
- Be a good principal
- Shared Competence Center?

Mandate (willingness)

iTRACT
Improving Transport and Accessibility through new Communication Technologies

- Optimal solutions may span:
  - Public and private transport
  - Different transport authorities:
    - Regions
    - Countries
    - Rural and urban
  - Different transport operators
- Who is driving the vision, ambition, change?
- Need for transcending vision and direction
- Government assignment?

When things don't go as planned

ITRACT
Improving Transport and Accessibility through new Communication Technologies

- Did we fail?
- Things we did not anticipate
  - Connection Users and Technology
  - IT development
  - Communication infrastructure
  - Digital Literacy
  - IT maturity of involved organisations

- What did ITRACT bring us; what will the future bring us?
- The top still beckons, project results and other developments (Uber, Google Transport, etc.) support the ambitions
- Need for more collaboration to reach the top?