

...can analyze and assess
...the mix of activities
...performed in terms of the
...a **knowledge** base for
...proprietary knowledge is
...used peers as a means of
...understanding capabilities

An industrial perspective of the knowledge triangle

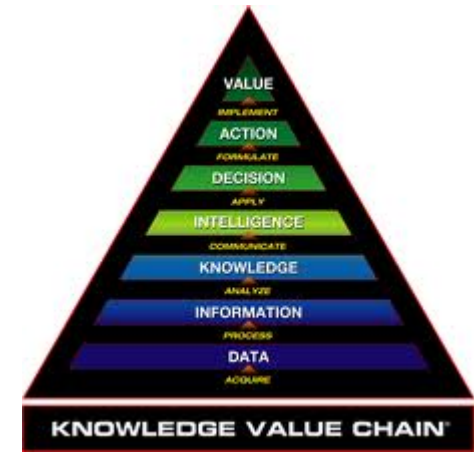
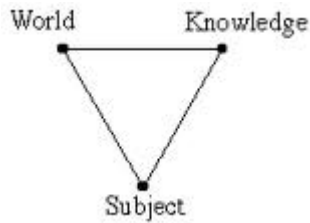
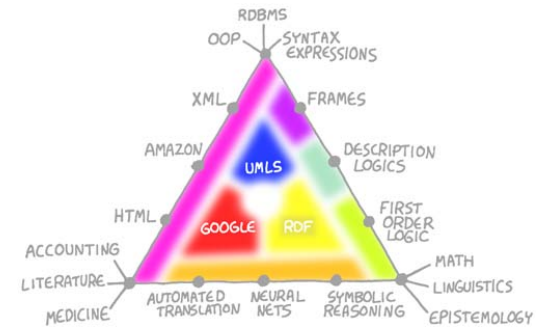
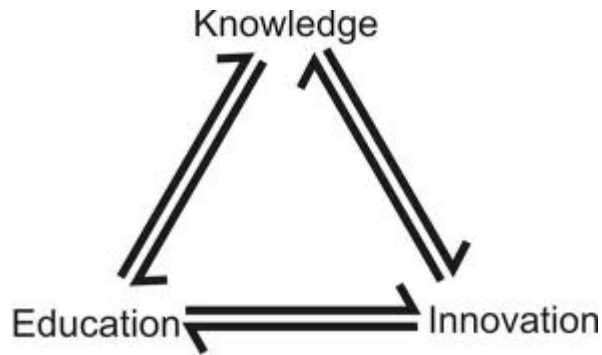
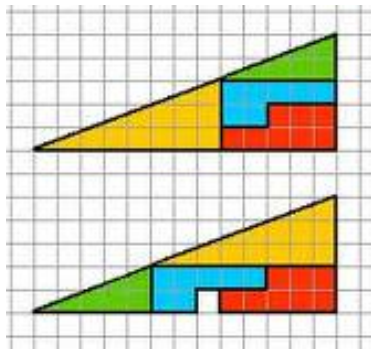
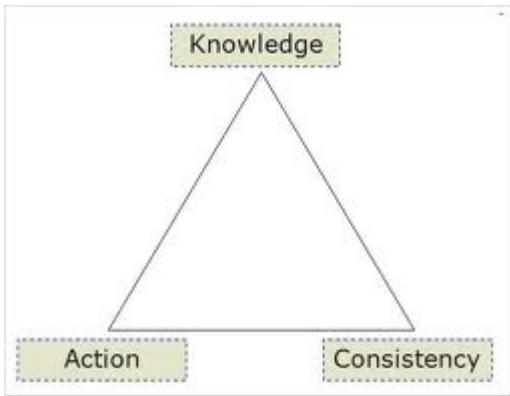
Dr Jan-Eric Sundgren

Senior Vice President, Public and Environmental Affairs

Volvo Group

Gothenburg, Sweden





Volvo Group

Volvo Trucks

Renault Trucks

UD Trucks

Mack Trucks

Eicher *



Buses

Construction Equipment

Volvo Penta

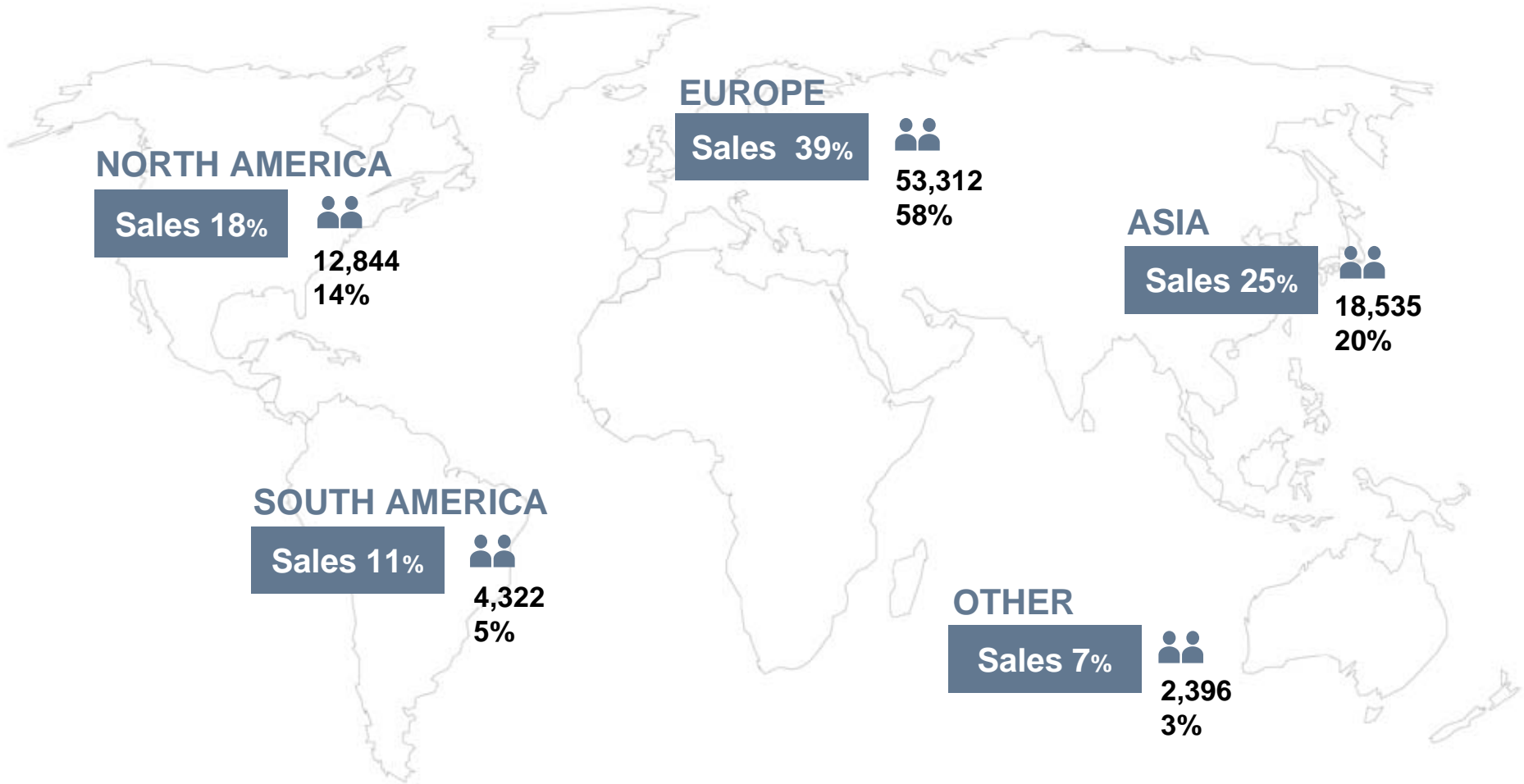
Volvo Aero

Financial Services



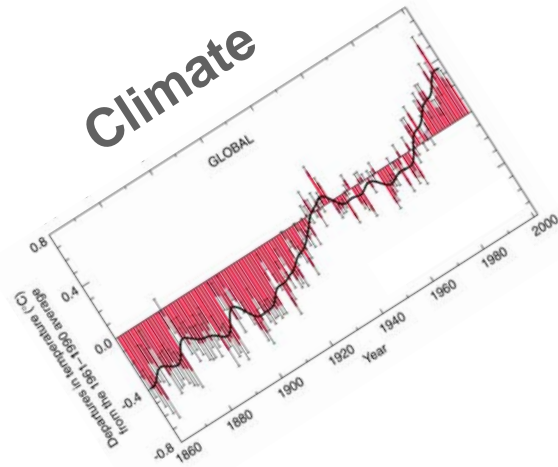
*) 50% of the joint-venture company with Eicher Motor Limited was consolidated in the Volvo Group from August 1st 2008

Sales and Employees Worldwide 2010

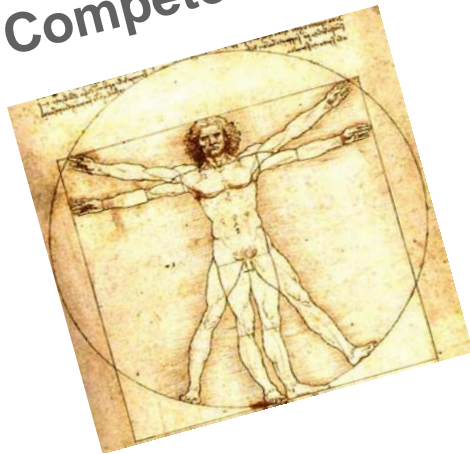


Industry facing major global challenges

Climate



Competence



Financial issues

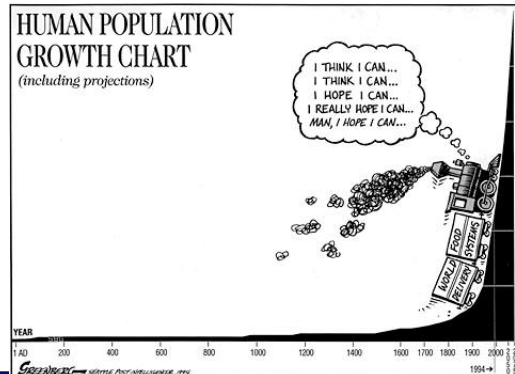
Economist.com

The world economy
Redesigning global finance
 13 November, 2008

Competitiveness



Urbanisation

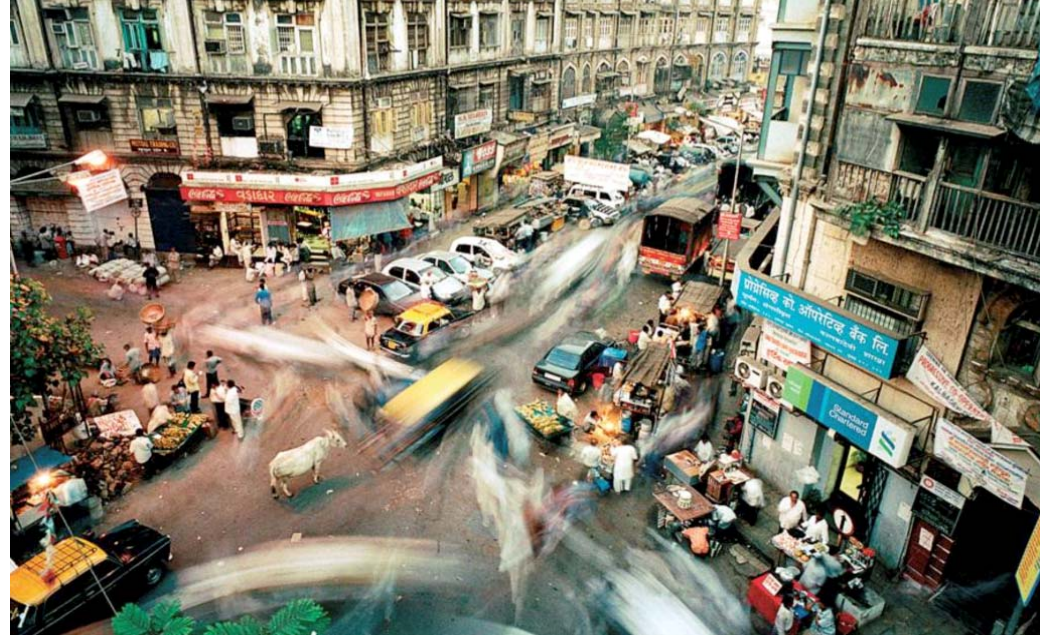


Innovations





City air quality



Congestion

Casualties



CO₂



Decreasing the environmental impact

Congestion

Balancing mobility
and
accessibility

Casualties

Ensuring high safety
and
high security levels

CO₂

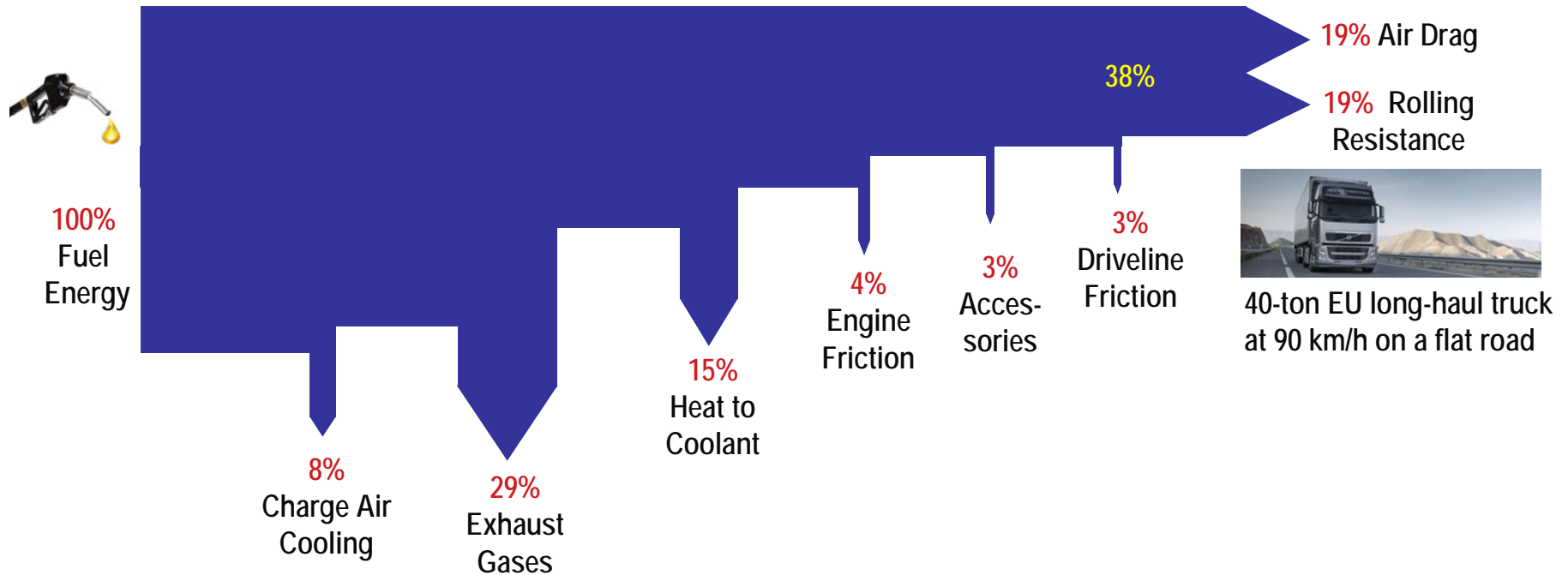
Keeping environmental impact low

**Efficient R&D, innovation and education systems
necessary**

**Balancing mobility
and
accessibility**

**Ensuring high safety
and
high security levels**

What happens to energy in the fuel?



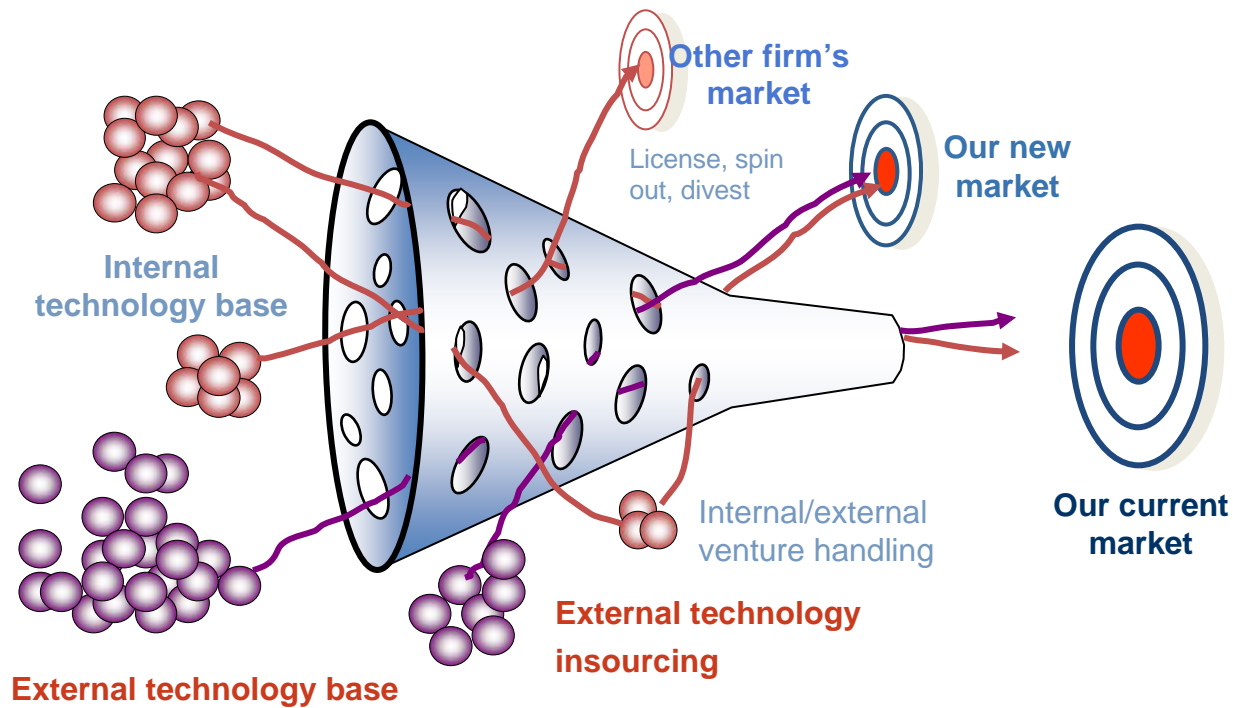
Volvo – Focused areas

Sustainable solutions

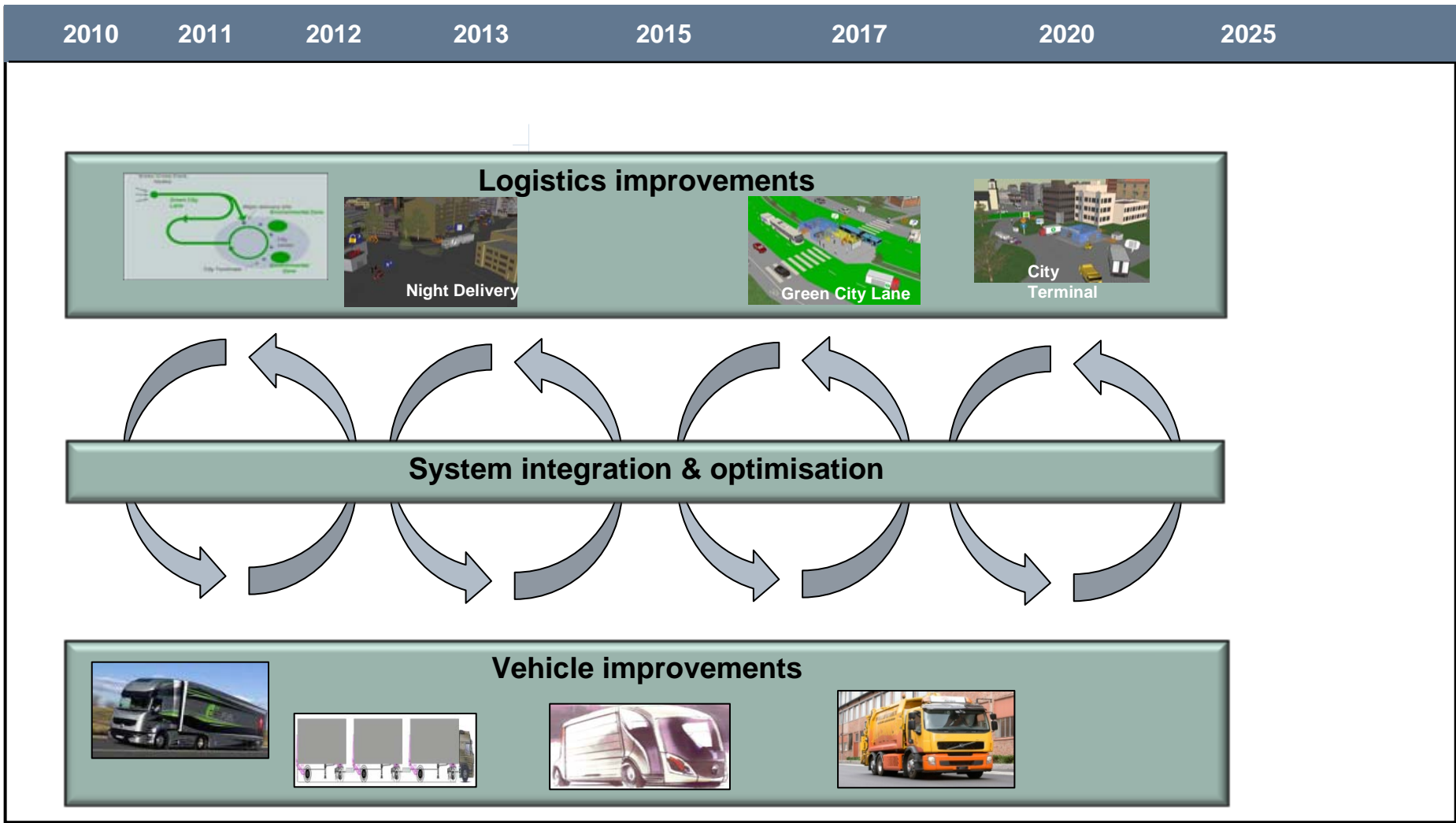
- Energy efficiency
- Vehicles performance & services
- Alternative fuels
- Safety & security
- Vehicle combinations
- Public transport solutions
- ITS



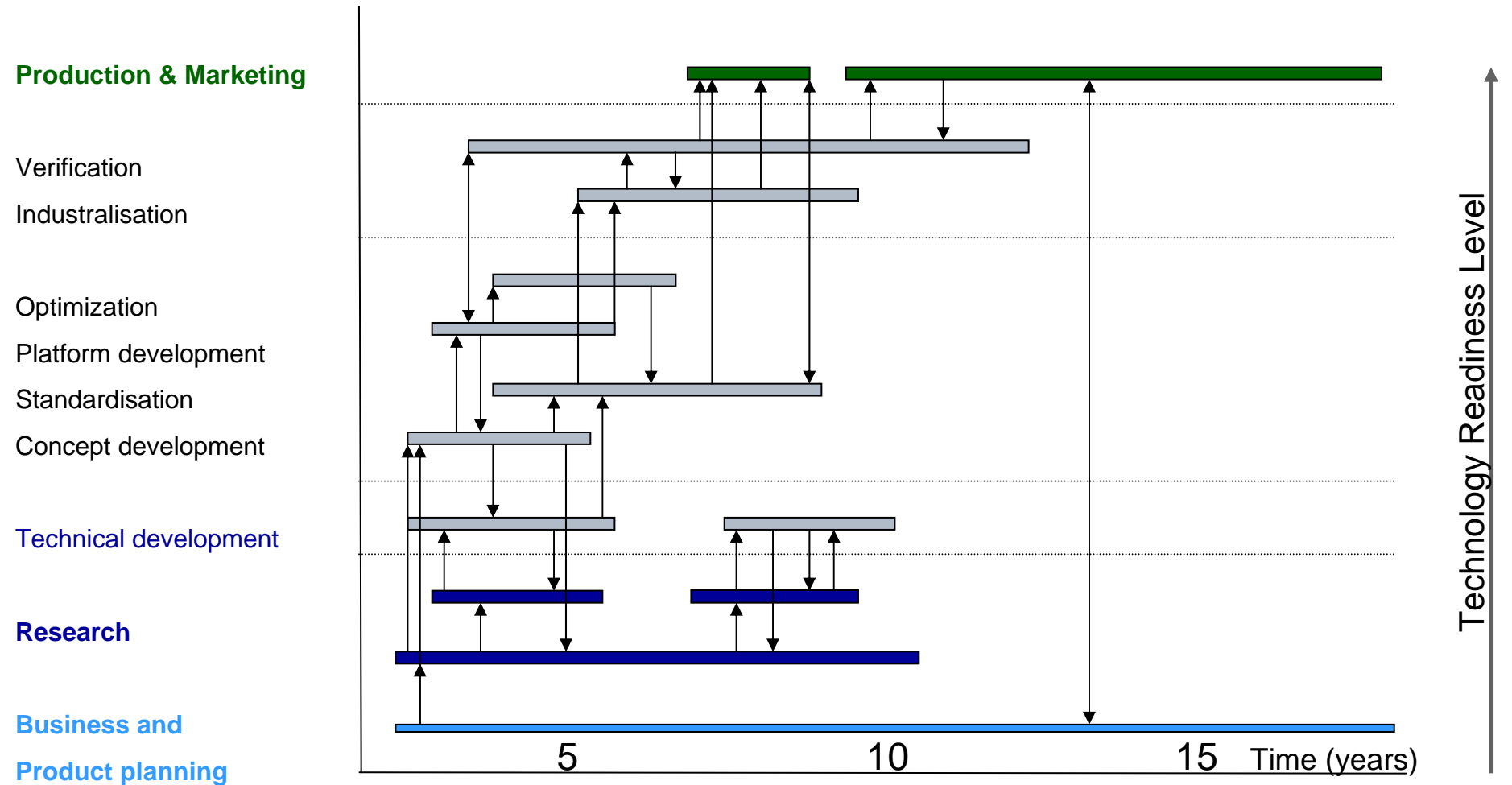
Innovation funnel



Long-term plans/prognosis a necessity (Roadmaps)



From R&D to Production and Sales



True Innovation requires in addition

Customer, supplier,
society interactions

Production & Marketing

Verification

Industrialisation

Optimization

Platform development

Standardisation

Concept development

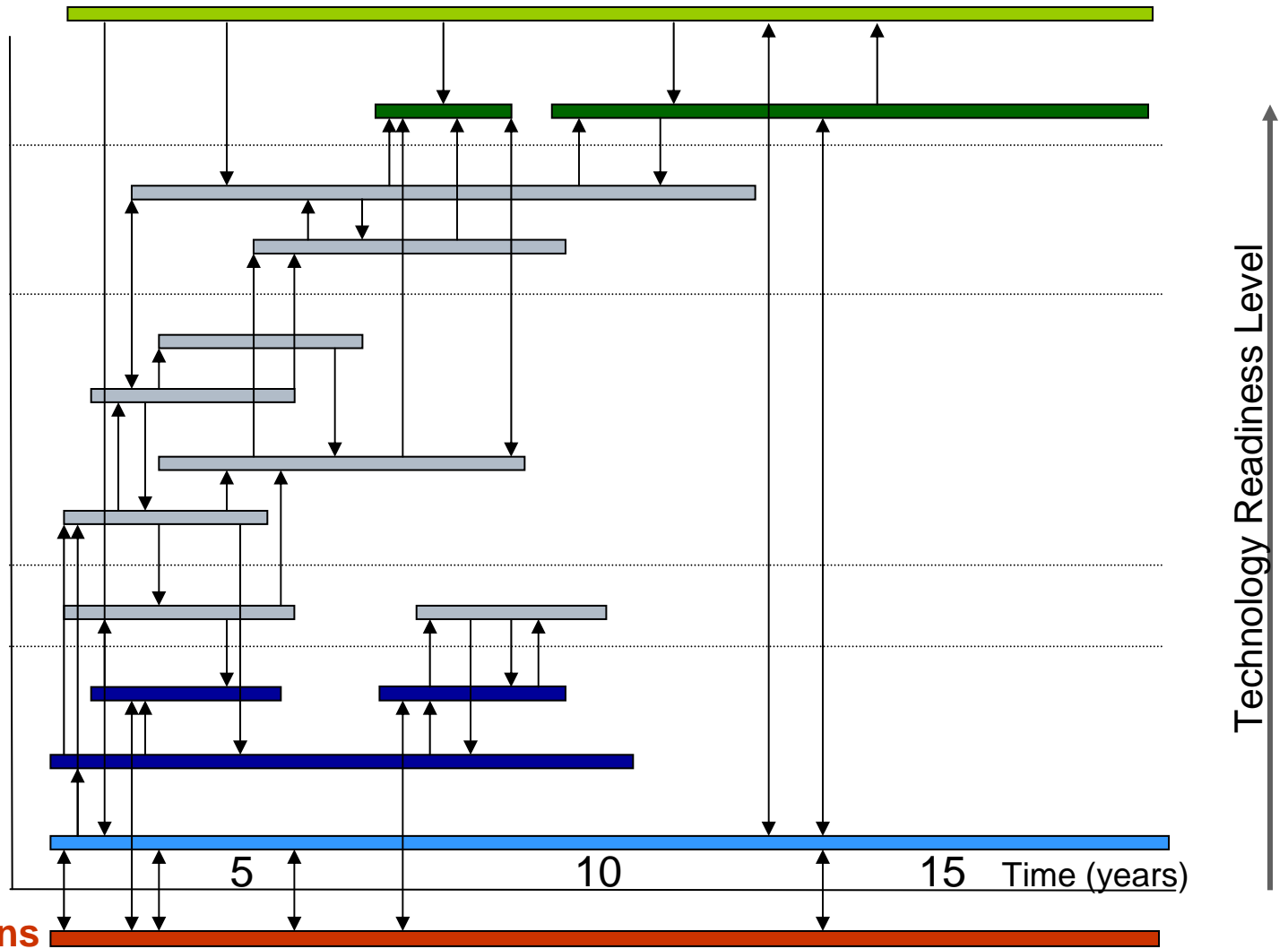
Technical development

Research

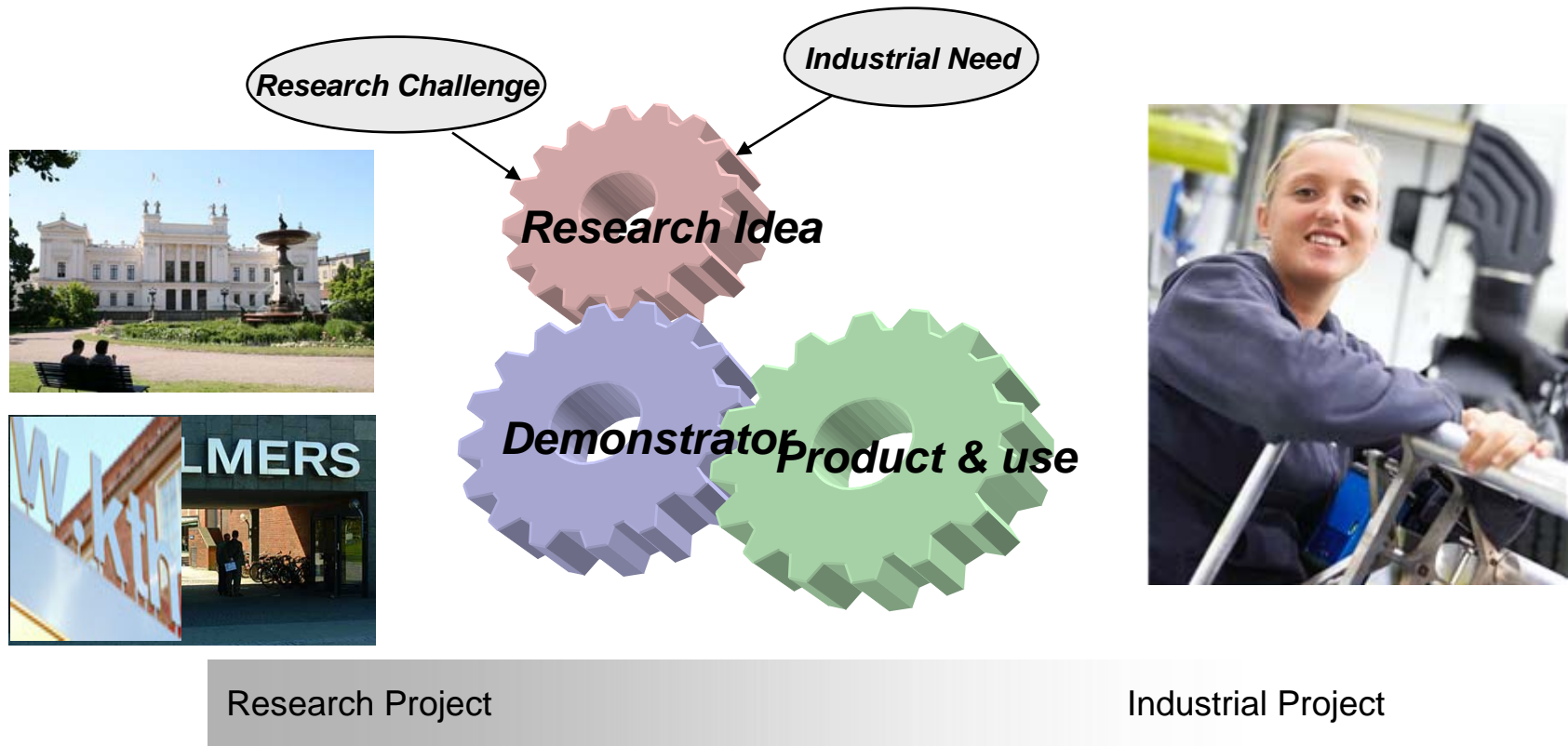
Visions, Business and

Product planning

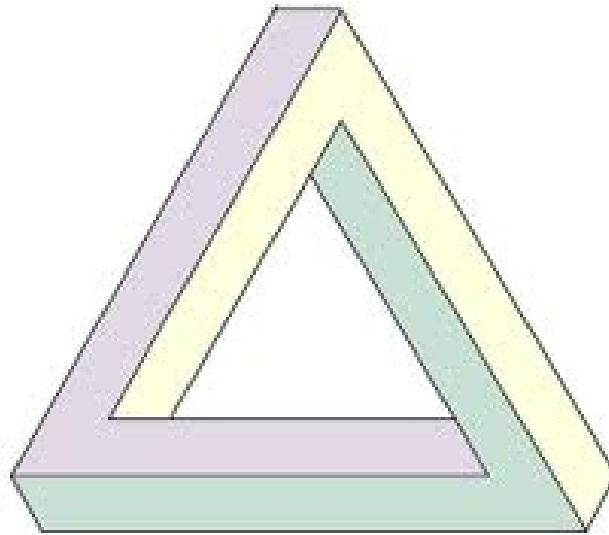
University interactions



University cooperation is essential

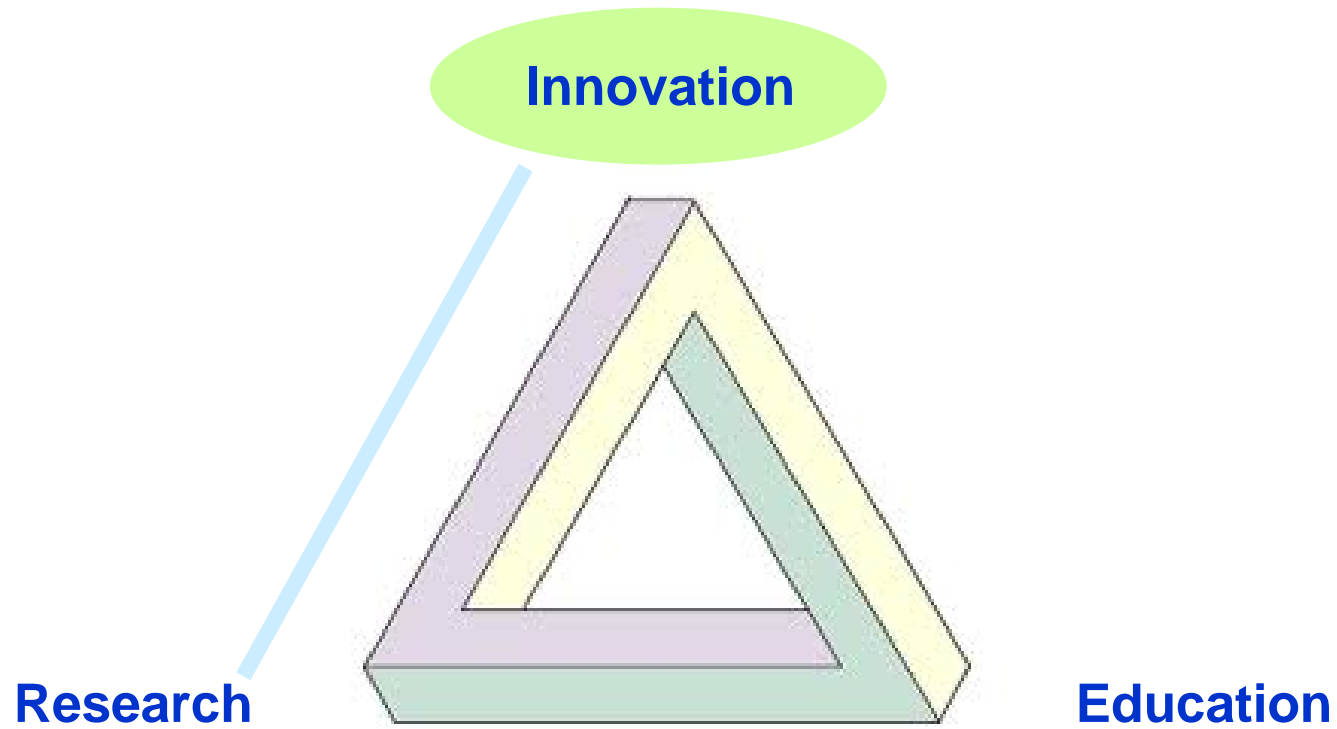


Innovation

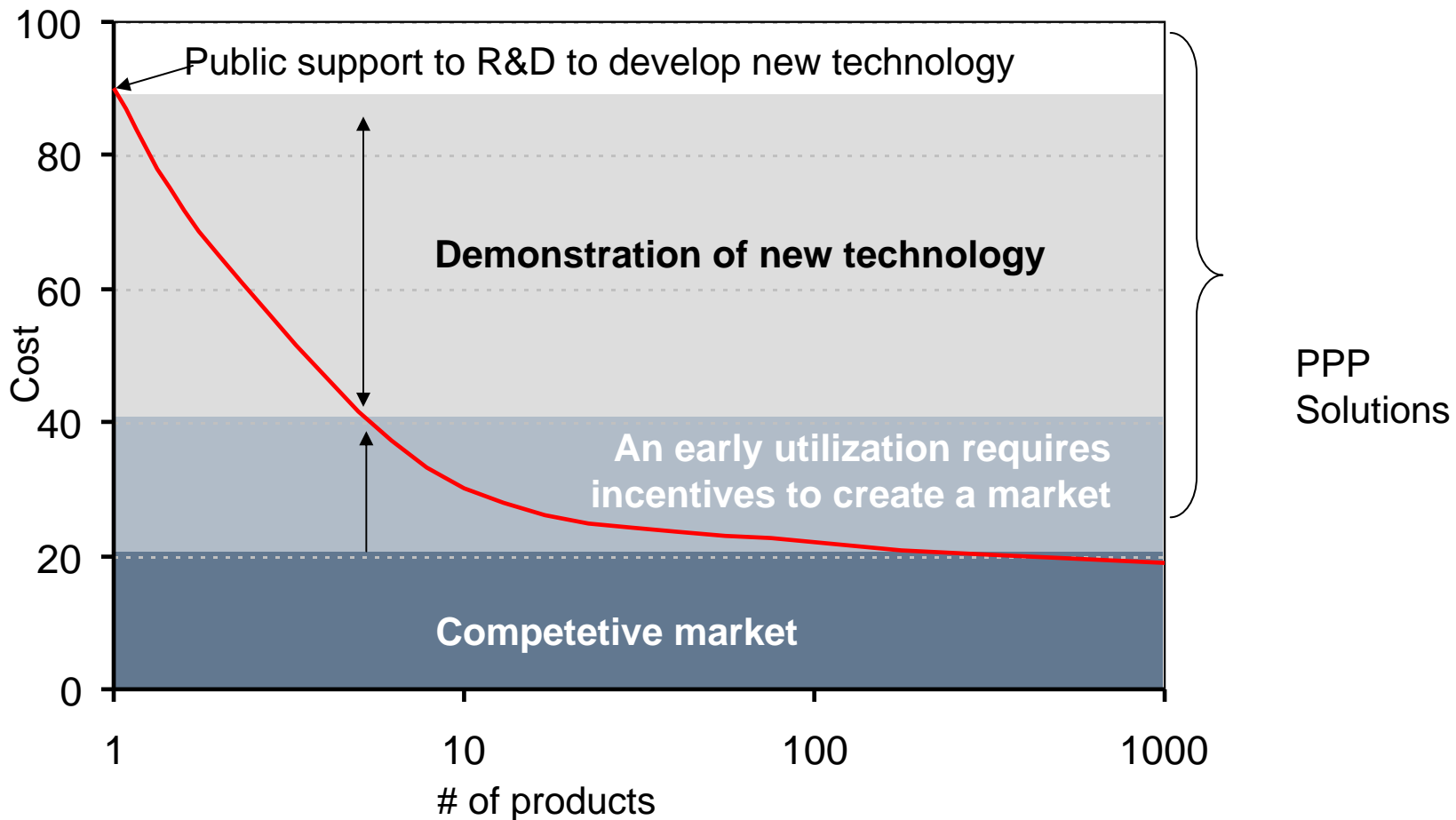


Research

Education



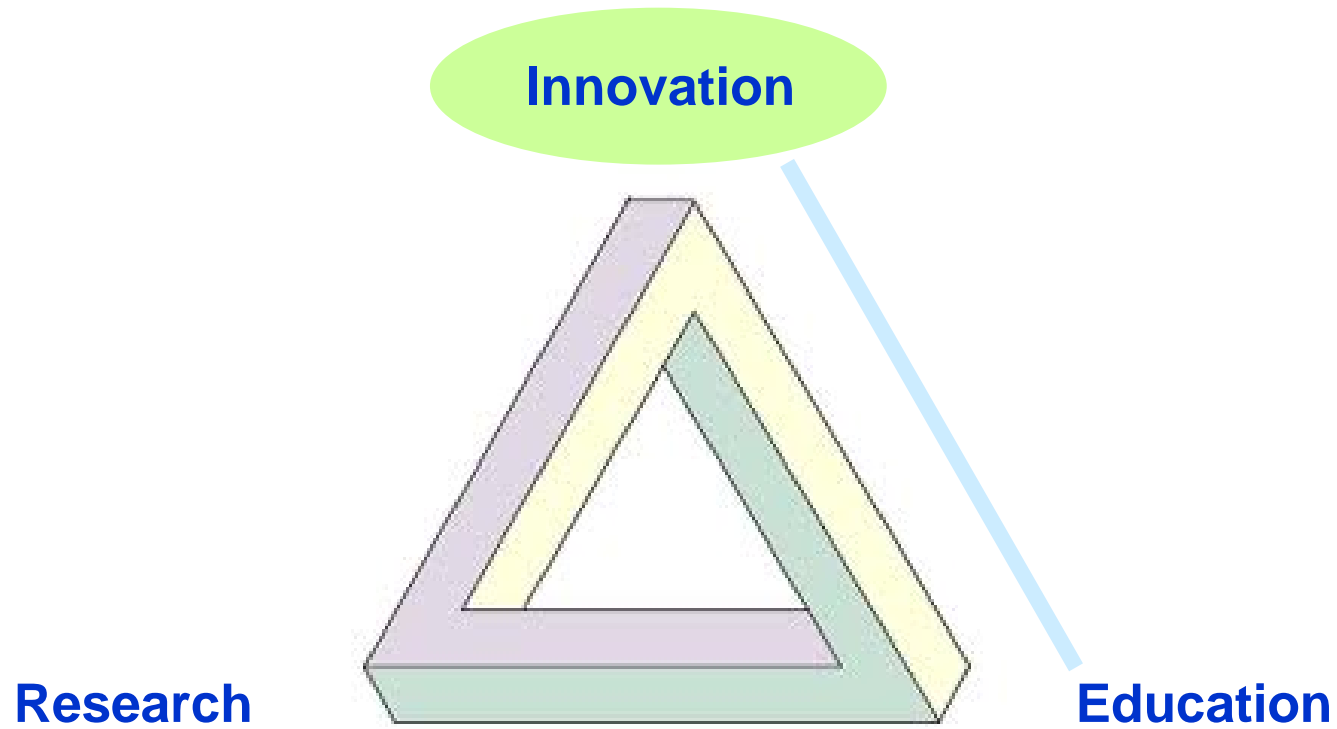
Stimulate demand and markets for innovation



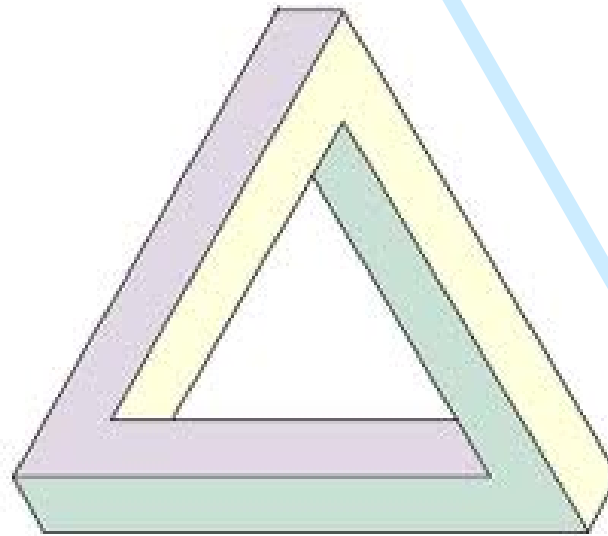


Five top priorities for a renewed and successful EU innovation policy

- Increase public and private investments in R&D and innovation
- Enhance the efficiency of public support policies
- Nurture future talent
- **Stimulate demand and markets for innovation**
- Implement integrated policy approaches



Innovation



**Partnership between
education and
business to support
students and teachers
and enhance
entrepreneurship**

Research

Education

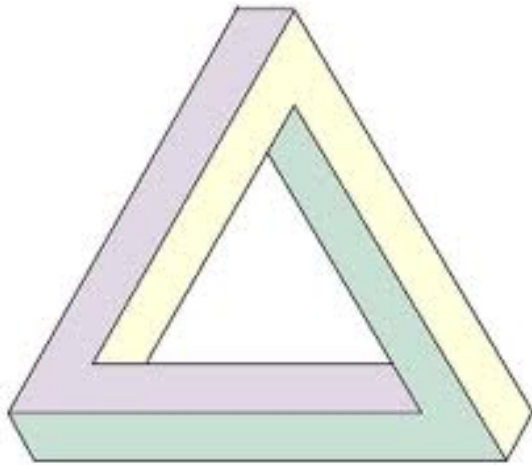
ERT Vision for a Competitive Europe in 2025

Education Recommendations



- Build national platforms that support initiatives for effective interactions between business and schools.
- Support life-long learning.
- Build stronger links between the public and private sectors in education.
- Further increase student mobility within the EU.

Smart, Sustainable and Inclusive Growth



Multi-stakeholder approaches

Trust and risk based approaches

Market and demand stimulation

Secured competence supply

(A healthy STEM talent pipeline)