



# Transport Research from FP7 to Horizon 2020



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## FP7 - SST Strategic Priorities



- Decarbonization (reduction of GHG emissions) & proper use of natural resources <sup>®</sup> **Eco-innovation**
- Optimize the global efficiency & safety of the transport system (including infrastructure & network capacity, logistics, ITS, etc.) → **Safe and seamless mobility**
- Strengthening the competitiveness of European transport industry. → **Competitiveness and growth through innovation**



# Overview of SST calls (RTD & MOVE)

SST Workprogramme	Year of publication	Budget Mio €
2007	2006 (1 <sup>st</sup> call)	255.68
2008	2007 (2 <sup>nd</sup> call)	138
2010	2009 (3 <sup>rd</sup> call)	141.5
2011	2010 (4 <sup>th</sup> call)	129.25
2012	2011 (5 <sup>th</sup> call)	150
<b>2013</b>	<b>2012 (6<sup>th</sup> call)</b>	<b>150</b>

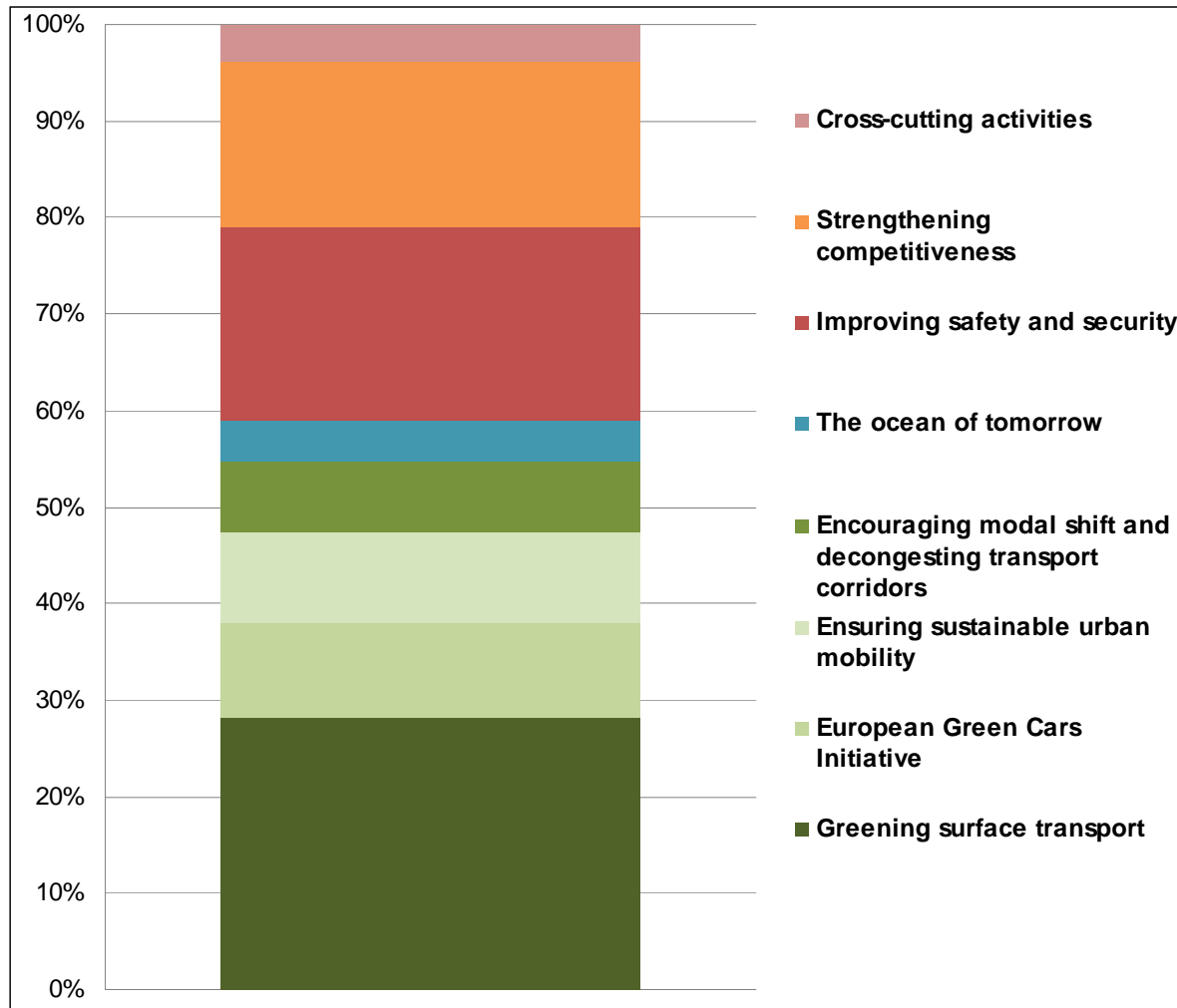


# FP7 SST Work programme - Coverage by activity (5 calls)

Activity	Projects						EC-Funding	
	CSA	CP-FP	CP-IP	CP-SICA	Total	%	Total in Mio €	%
<b>GREENING</b>	2	35	11		48	18%	190	24%
<b>MODAL SHIFT</b>	2	15	3		20	8%	59	7%
<b>URBAN MOBILITY</b>	9	10	3	2	24	9%	81	10%
<b>SAFETY AND SECURITY</b>	5	42	3	1	51	19%	145	18%
<b>COMPETITIVENESS</b>	2	35	4		41	16%	132	17%
<b>CROSS-CUTTING</b>	23	1			24	9%	18	2%
<b>GREEN CARS(EGCI)</b>	5	34	4	1	44	17%	129	16%
<b>OCEAN OF TOMORROW</b>	1	4			5	2%	28	4%
<b>ERA-Net</b>	5				5	2%	19	2%
<b>Total</b>	<b>54</b>	<b>176</b>	<b>28</b>	<b>4</b>	<b>262</b>	<b>100%</b>	<b>800</b>	<b>100%</b>



European  
Commission



# Road transport – FP7 Research areas

## Road Safety



**Ergonomics of vehicles and seats**



**Crash dummies, biomechanics, virtual testing**



**Real-life observations of driver behaviour**



**Safe road infrastructure**



**Compatibility and crashworthiness of vehicles**

**Interaction between innovative technologies and drivers**

**Tyre/road interaction, Skid resistance**





## Overview of **Last** FP7 SST call

Call	Group of Topics / description	Number of topics	Indicative budget M€
FP7-SST-2013-RTD-1	N° 1: Increasing Railway Capacity	4	23.00
	N° 2: Ensuring safe, green and competitive Waterborne Transport	3	17.00
	N° 3: European Green Cars Initiative	6	38.95
	N° 4: Urban Mobility, ITS, Infrastructure, Safety	4	20.40
	Cross-cutting	2	7.60
	Horizontal activities	3	4.00
FP7-OCEAN-2013	Ocean of Tomorrow, Theme 7	2	10.00
FP7-TRANSPORT-2013-MOVE-1	TRANSPORT DG MOVE	4	25.00
FP7-ERANET-2013-RTD	Materials for road infrastructure	1	4.00
<b>Total</b>		<b>29</b>	<b>149.95</b>



# Transport Research in Horizon 2020







# What is Horizon 2020

- Commission proposal for a 88 billion euro research and innovation funding programme (2014-2020)
- **A core part of Europe 2020, Innovation Union & European Research Area:**
  - **Responding to the economic crisis** to invest in future jobs and growth
  - **Addressing people's concerns** about their livelihoods, safety and environment
  - **Strengthening the EU's global position** in research, innovation and technology





## What's new

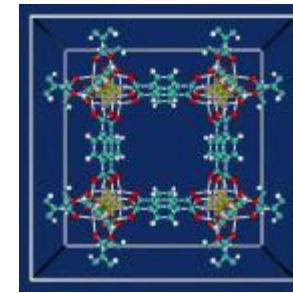
- **A single programme** bringing together three separate programmes/initiatives\*
- **Coupling research to innovation** – from research to retail, all forms of innovation
- **Focus on societal challenges** facing EU society, e.g. health, clean energy and transport
- **Simplified access**, for all companies, universities, institutes in all EU countries and beyond.

\*The 7th Research Framework Programme (FP7), innovation aspects of Competitiveness and Innovation Framework Programme (CIP), EU contribution to the European Institute of Innovation and Technology (EIT)



# Three priorities:

1. Excellent science



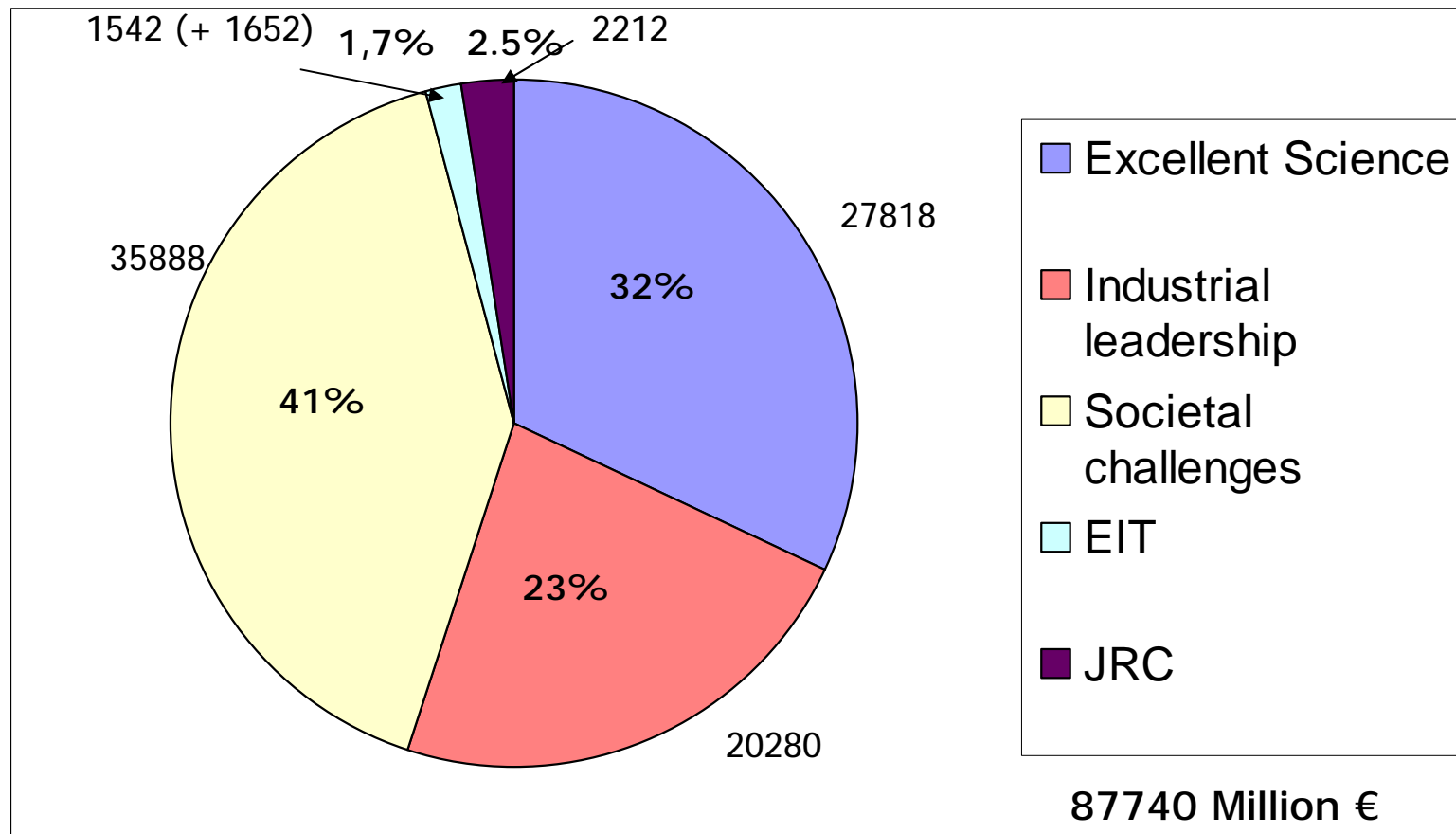
2. Industrial leadership



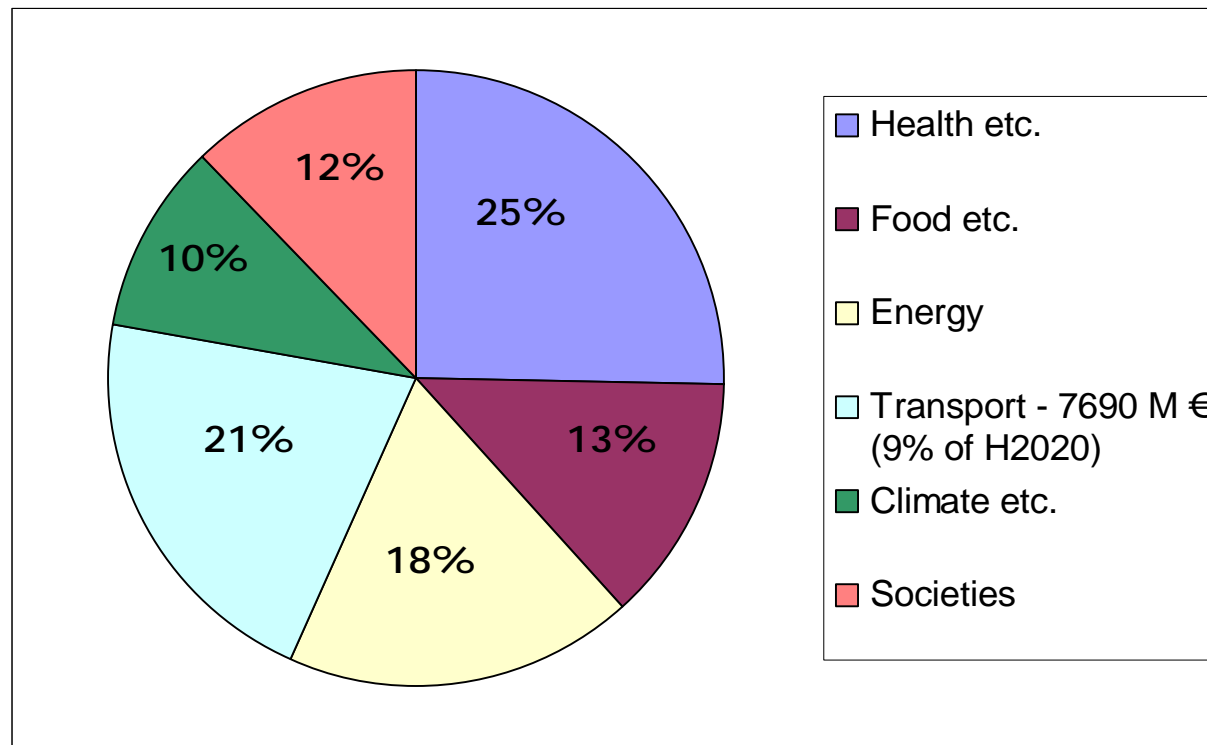
3. Societal challenges



# H2020 budget breakdown



# Societal challenges



# The main challenges for transport

- Oil dependency
- Greenhouse gas and noxious emissions
- Congestion
- Fragmented networks
- Transport management systems
- Efficiency and competitiveness





## EU TRANSPORT POLICY OBJECTIVES

- reduce transport CO<sub>2</sub> by 60% (by 2050 re 1990)
- decarbonize urban transport (by 2030)
- reduce oil dependency, increase use of low carbon fuels
- shift 30% road freight > 300 km to rail & water (by 2030)
- majority of mid-distance passenger transport by rail (by 2050)
- limit congestion
- eradicate road fatalities (by 2050)
- complete and connect the TEN-T core network (by 2030)

**without curbing mobility**



# “Smart, green and integrated” Transport in “Horizon 2020”

- The challenge: to achieve a transport system that is
  - **resource efficient**
  - **environmentally friendly**
  - **safe and seamless**
  - **for the benefit of citizens, economy and society**
- The logic:
  - **a holistic approach...**
  - **...that recognises modal specificities;**
  - **...is focused on the societal challenges;**
  - **...responds to policy requirements;**
  - **...takes into account the imperatives of competitiveness.**







# Striking the right balance

- **policy objectives/industry goals/user needs**
- **holistic approach/modal specificities**
- **competitiveness/sustainability**
- **technology integration/socio-economic dimension**
- **means/infrastructures/systems/services**
- **aviation/road/rail/waterborne/urban/cross-cutting**





## Smart, green & integrated transport

Resource efficient transport that respects the environment → *sustainable*

Better mobility, less congestion, more safety & security → *seamless*

Global leadership for the European transport industry → *competitive*

Socio-economic research & forward looking activities for policy making → *responsive*



# RESOURCE EFFICIENT TRANSPORT THAT RESPECTS THE ENVIRONMENT

- cleaner, quieter aircraft, vehicles, vessels
  - cleaner propulsion technologies
  - use of low emission alternative energies
  - lighter aircraft, vehicles, vessels
- smart equipment, infrastructures and services
- improved transport and mobility in urban areas





## BETTER MOBILITY, LESS CONGESTION, MORE SAFETY AND SECURITY

- substantial reduction of traffic congestion
- improved mobility of people and freight
  - air traffic management
  - waterborne: integrated planning and management
  - rail and road: optimisation of network management
- new concepts of freight transport and logistics
- reducing accidents and casualties, improving security



# GLOBAL LEADERSHIP FOR THE EUROPEAN TRANSPORT INDUSTRY

- next generation of transport means
  - aircraft, trains, vehicles, vessels; propulsion units, control systems
- on board, smart control systems
  - vehicle/infrastructure communication
- advanced production processes
  - design and manuf. techniques: production, maintenance, recycling
- new transport concepts
  - innovative transport systems, incl. automated vehicles





# SOCIO-ECONOMIC RESEARCH AND FORWARD LOOKING ACTIVITIES FOR POLICY MAKING

- actions to support policy analysis and development
- user behaviour, social acceptance, mobility patterns
- business models
- impact of policy measures
- long term scenarios and prospective studies
- transport and spatial planning
- accessibility issues
- transport economics





On-going	<b>Negotiations on <i>Horizon 2020</i> and total EU budget (MFF 2014-2020) by European Parliament &amp; European Council</b>
Mid-2013	<b>Adoption of legislative acts by European Parliament &amp; European Council of <i>Horizon 2020</i></b>
1 January 2014	<b><i>Horizon 2020</i> starts, launch of first calls</b>



**Thank you for  
your attention!**

