



Conference on "Future transport research in the European Union"

ERRIN & POLIS, 31st January 2013, Brussels

European transport research in Horizon 2020

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The background is a complex, abstract composition of numerous thin, overlapping lines in various colors including yellow, green, blue, purple, and pink. These lines form a dense network of geometric shapes, primarily triangles and polygons, creating a sense of depth and complexity. The lines are most concentrated in the upper left and right areas, with some radiating from central points. The overall effect is a vibrant, textured backdrop that suggests a global or interconnected theme.

The world has changed

Congestion levels 2030



Congestion levels 2030
Inter-urban road traffic
TRANSTOOLS projection, major links
Use of available traffic capacity

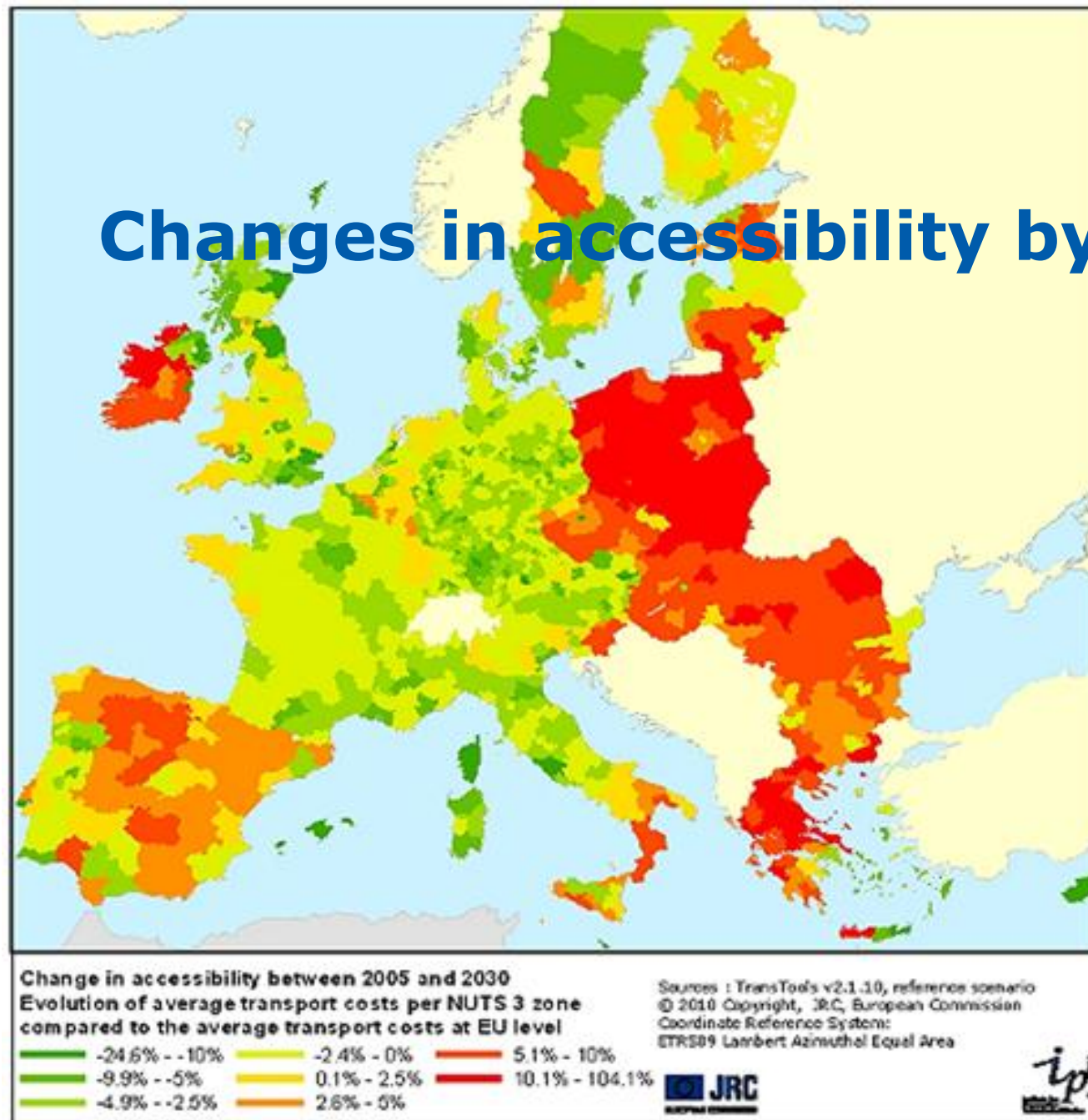
60% - 70%	80% - 90%
70% - 80%	over 90%

Sources : TransTools v2.1.10, reference scenario
© 2010 Copyright, JRC, European Commission
Coordinate Reference System:
ETRS89 Lambert Azimuthal Equal Area



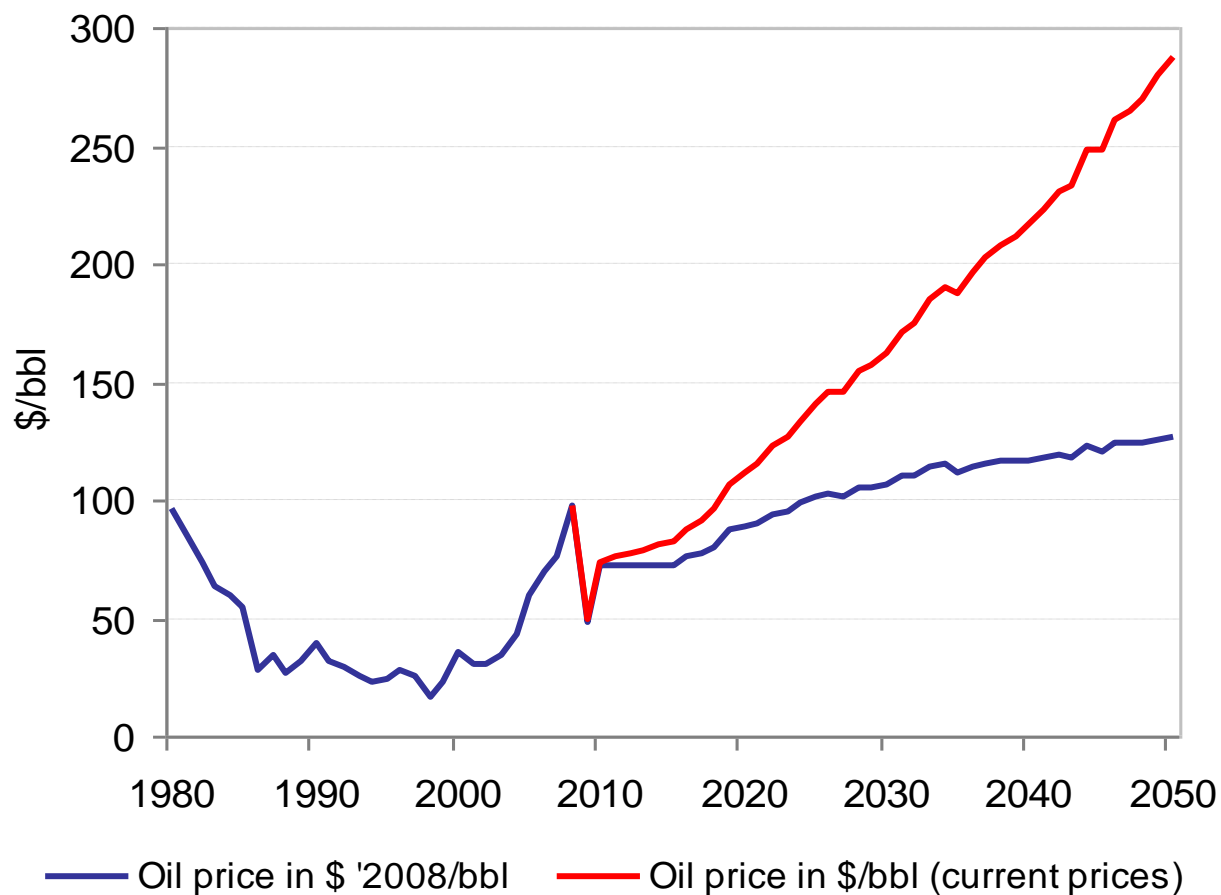
European
Commission

Changes in accessibility by 2030



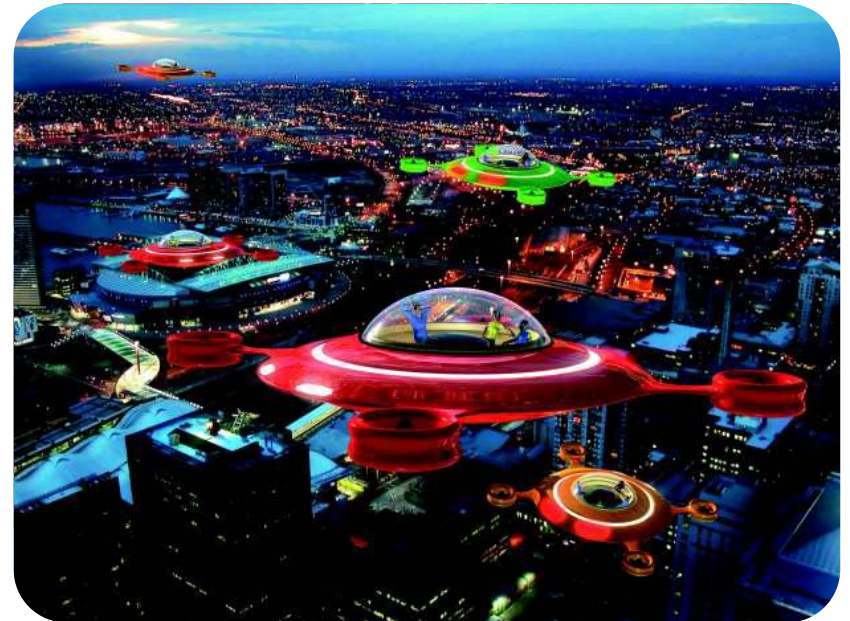
European
Commission

Ever higher oil prices



Source: Prometheus, NTUA (E3MLab)

Our future mobility?



Source: Out of the Box project



European
Commission

Research & innovation

New needs → new ideas → new markets





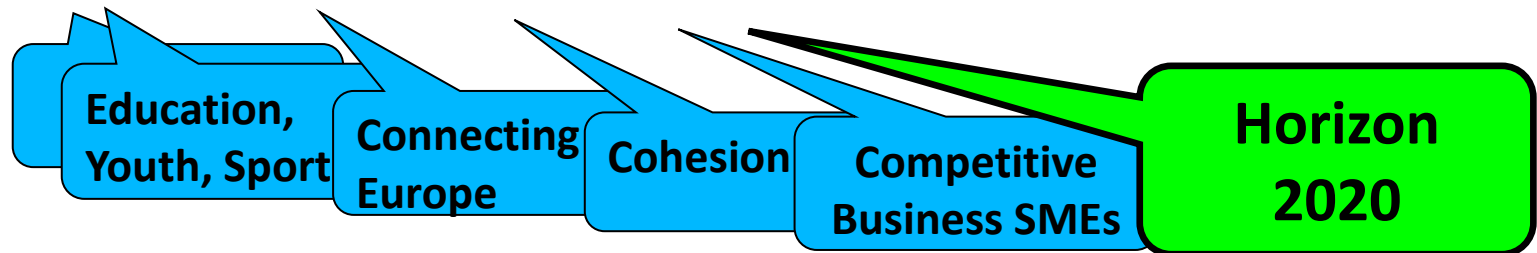
The proposal

Structure & budget of Horizon 2020

The Multiannual Financial Framework 2014-2020: *Commission's proposals of 29 June 2011*

Key challenge: *stabilise the financial & economic system while taking measures to create economic opportunities*

1. Smart & inclusive growth (€491bn)



2. Sustainable growth, natural resources (€383bn)

3. Security & citizenship (€18.5bn)

4. Global Europe (€70bn)

5. Administration (€62.6bn)





Horizon 2020

The European Commission's proposal to generate ideas, growth and jobs through the world's largest collaborative programme for research and innovation (2014-2020)

The proposal

More

- € 87 740 million (current prices, 2014-2020)

Wider

- From research to innovation

Simpler

- More flexible & user friendly funding approach

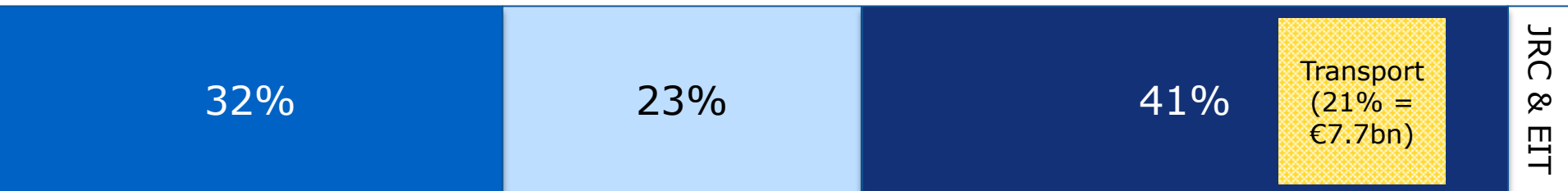
Together

- Continued stakeholder engagement
- Maintaining, possibly extending JTIs & PPPs



European
Commission

Three priorities



I. Excellent science (New ideas)

II. Industrial leadership (New markets)

III. Societal challenges (New needs)

I. Excellent Science

Proposed funding: € 27 818 million

1. European Research Council <i>Frontier research by the best individual teams</i>	15 008
2. Future & Emerging Technologies <i>Collaborative research to open new fields of innovation</i>	3 505
3. Marie Curie actions <i>Opportunities for training & career development</i>	6 503
4. Research infrastructures (including e-infrastructure) <i>Ensuring access to world-class facilities</i>	2 802

II. Industrial leadership

Proposed funding: € 20 280 million

1. Leadership in enabling & industrial technologies <i>(ICT, nanotechnologies, materials, biotechnology, manufacturing, space)</i>	15 580
2. Access to risk finance <i>Leveraging private finance & venture capital for research & innovation</i>	4 000
3. Innovation in SMEs* <i>Fostering all forms of innovation in all types of SMEs</i>	700

(*) Complemented by ~€7700m (expected 15% from priorities II.1 and III) and 'Access to risk finance' with strong SME focus

III. Societal challenges

Proposed funding: € 35 888 million

<i>1. Health, demographic change & wellbeing</i>	9 077
<i>2. Food security, sustainable agriculture, marine & maritime research & the bio-economy</i>	4 694
<i>3. Secure, clean & efficient energy*</i>	6 537
<i>4. Smart, green & integrated transport</i>	7 690
<i>5. Climate action, resource efficiency & raw materials</i>	3 573
<i>6. Inclusive, innovative & secure societies</i>	4 317

(*) Additional €2020m for nuclear safety & security from the Euratom Treaty activities (2014-18). It does not include ITER

EIT and JRC

Proposed funding: € 3 754 million

<i>European Institute of Innovation and Technology (EIT)*</i> <i>Combining research, innovation & training in Knowledge & Innovation Communities</i>	1 542
<i>Joint Research Centre (JRC)**</i> <i>Providing a robust, evidence base for EU policies</i>	2 212

* Plus €1652m second tranche pro rata from priorities II.1 and III (3.2%, subject to review)

** Additional €741m for the JRC to be funded from the Euratom Treaty activities



*Smart, green and integrated
transport*

**European transport
research & innovation
in Horizon 2020**

Policy response: *White Paper on Transport (2011)*

- Reduce ***greenhouse gas emissions*** by at least 60%
- Increase the ***efficiency & capacity*** of the transport system
- Close to ***zero accidents*** & higher customer satisfaction
- Drive conventional cars out of the cities & optimise ***urban*** logistics

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***

Sustainable

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



Source: HCV project

Seamless

- substantial reduction of traffic **congestion**
- improving **mobility** of people & freight
- new concepts of **logistics**
- reducing **accidents** & casualties
- improving **security**



Source: Ariadne project

Competitive

- next generation of transport ***means***
- smart ***control*** systems
- advanced production ***processes***
- interoperable ***standards***
- entirely ***new transport concepts***



Source: Sartre project

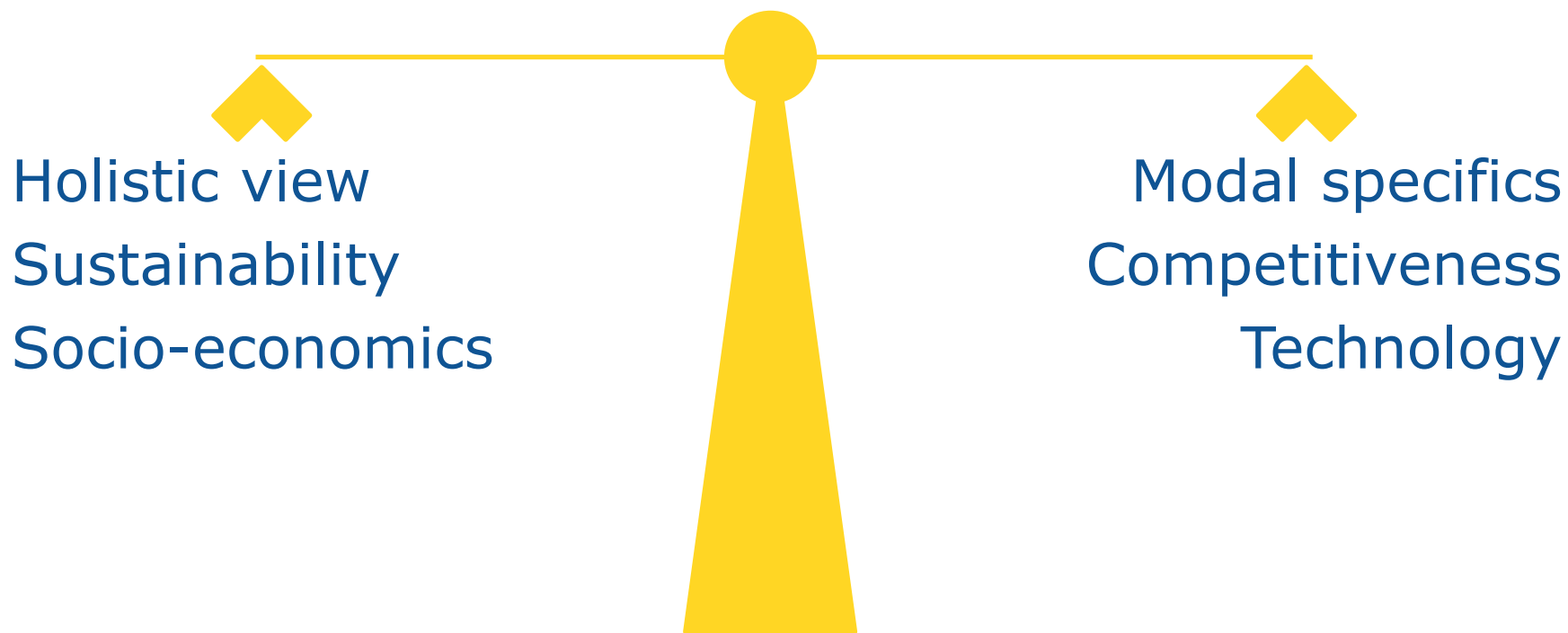
Responsive

- ***socio-economic research*** to feed into ***policy & regulations***
 - user behaviour, social acceptance, mobility patterns
 - business models & transport economics
 - transport & spatial planning
 - accessibility issues



Source: Usemobility project

A balanced approach



Other aspects in...

... Horizon 2020

From research to market: Funding



NEW

- ***Targeting innovation***

- e.g. inducement prizes, pre-commercial procurement

NEW

- ***Financial instruments***

- e.g. access to risk finance, debt/equity facilities

- ***Collaborative research projects***

- incl. close-to-market activities (prototypes, demos)

- ***Support actions***

- e.g. social innovation, dissemination, expert support

Simpler

- ***One action/project = one rate***
 - Research: up to 100% of total direct eligible costs
 - Close-to-market actions / programme co-funding: up to 70% of total direct eligible costs
 - Indirect costs flat rate: 25% of total direct eligible costs
- ***Simpler audit***
- ***Easier for SMEs***

Excellence prevails



- Funding remains allocated ***competitively***
- More accessible to ***SMEs***
- Build up ***research & innovation capacity*** using EU cohesion policy
- ***Smart specialisation*** strategies

In Europe...

- ***Together with Member States***
 - Programme co-funding
 - ERA-NETs
 - Joint Programming Initiatives
 - Joint programmes with Member States (Art. 185 TFEU)
- ***European Innovation Partnerships***



... and beyond

- ***Most open*** funding programme in the world
- Based on ***mutual benefit***
 - Global societal challenges
 - Cross-border interoperability
 - International standards & global systems
 - Access to knowledge, access to markets



What's next?

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

Stay informed

Transport research website

<http://ec.europa.eu/research/transport/>

Horizon 2020 website

<http://ec.europa.eu/research/horizon2020/>



THANK YOU FOR YOUR ATTENTION !

