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Sustainable Surface Transport (SST) Call Content FP7-SST-2011-RTD-1

FP7 Info Days – Surface Transport
23/07/2010

Frederic Sgarbi
Head of Unit ff: Surface Transport



EU



TRANSPORT RESEARCH





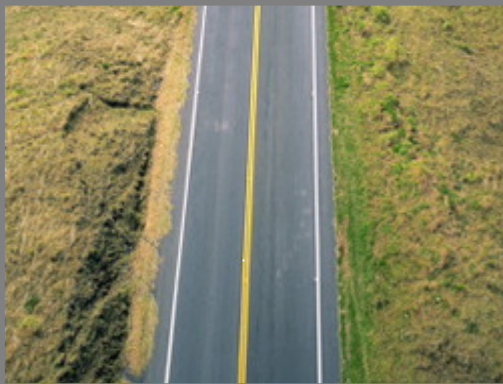
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Rail



Road



Water



1.

General Aspects



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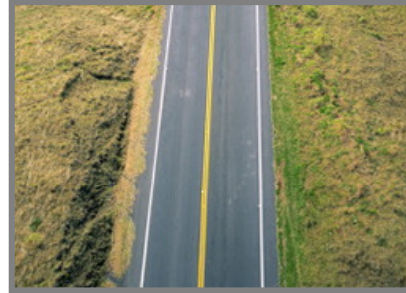
THEME 7.2 Sustainable Surface Transport

SST 2007-2013

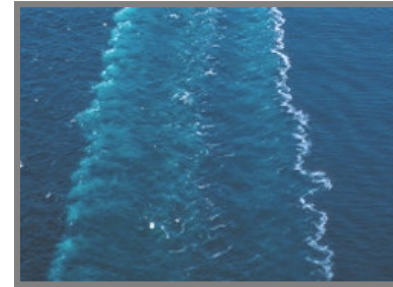
for PEOPLE and GOODS



Rail



Road



Water

towards greener transport

...a guided tour through the Work Programme 2011





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SST FOUNDATIONS

SST 2007-2013

- BUILT ON

- **Experience** and existing activities, impacts, RTD results, consultation including Member States

- **Policy dimension** (European Research Area, Transport White Paper mid-term review, wide range of EU Policies), Industry support package, Green Car.

- **Industrial dimension** input from Technology Platforms

- ◆ ERTRAC

- ◆ ERRAC

- ◆ WATERBORNE
and EIRAC

- **Flexibility** to cope with emergencies





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SST GLOBAL OBJECTIVE

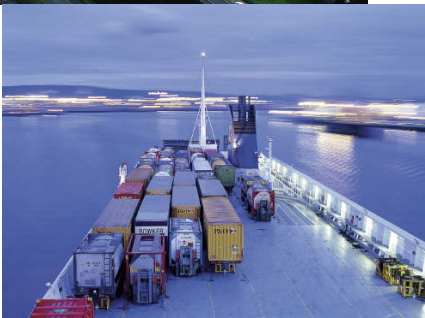
SST 2007-2013



Address to **European Transport System (s)**



→ Develop **greener, smarter and safer** Surface Transport System (s)



→ Secure the **leading role** of EU transport **industry** in the global market



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Approach

SST 2007-2013

- Integrated **Surface Transport System** (s) (3 modes)
- Integrating the **components of the system:**

- ➔ **Vehicle/Vessel**
- ➔ **Infrastructure**
- ➔ **Users**



...interactions, interfaces, logistics, Transport Networks & Services

- Integrating stakeholders, disciplines, activities, etc
- Integrating discipline and activities: **5 Activity Lines; CROSS CUTTING** + European **GREEN CARS** initiative



COOPERATION



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Research characteristics

SST 2007-2013

- Basic and applied research
- Break through research/ Incremental research
- Development of innovative solutions for surface transport products, processes, operations and services
- Large and Multi-disciplinary demonstration
- Socio-economic research
- Structuring European surface transport research (ERA)
- Supporting programme implementation (SMEs, international cooperation, communication, citizen awareness and support to new policies related to transport, etc)





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Call emphasis

● 2011:

- 3 research challenges
- For each, a **budget** has been earmarked
- For each, “**group of topics**” have been defined:
 - ◆ Efficient railways services (Group of topics N°1, € 26 million)
 - ◆ Eco-innovations in shipbuilding and waterborne transportation (Group of topics N°2, € 26 million)
 - ◆ The European Green Cars Initiative (Group of topics N° 3, € 30,25 million)



Since 2010

Also

- Untapped research potential and filling gaps (Group of topics N° 4, € 9 million).

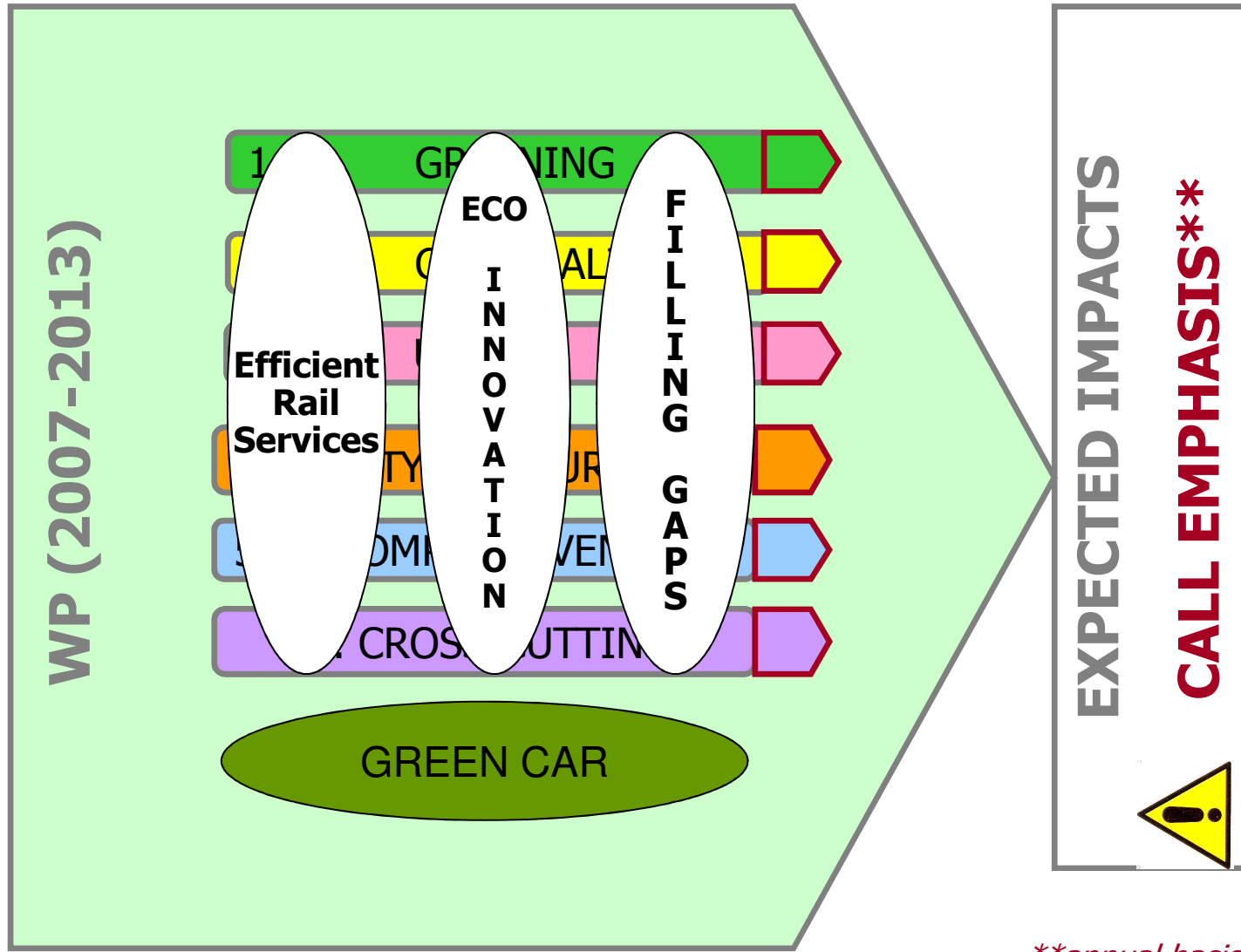


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WP STRUCTURE

SST 2007-2013



Activities are sub-divided in Areas and Topics

**annual basis





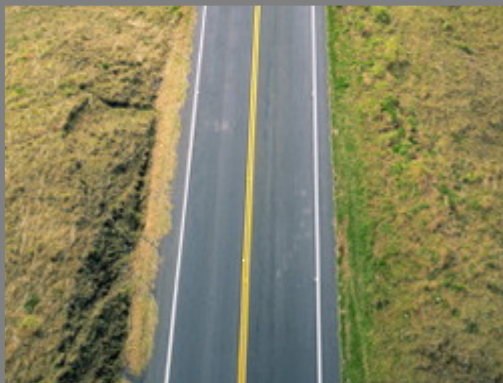
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Rail



Road



Water



2.

Work Programme 2011



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LEGAL REFERENCE

SST-2011-RTD-1

with reference to:


- ✓ FP7 Specific Programme Cooperation
- ✓ THEME 7 – TRANSPORT
- ✓ SUB-THEME 7.2 - Sustainable Surface Transport (SST)
- ✓ Call:FP7-(SST)-**2011-RTD-1**
- ✓ Budget: 91.25M€

Open date: 20 July 2010
Closure date: 2 December 2010

Legal basis:

Annual SST Work Programme

Call text and *Call Fiche*



Screen 1 of 203

FP7-TRAN

FP7-TRAN
Title: FP7- SUSTAINABLE SURFACE TRANSPORT (SST)-2010-RTD-1

ANNEX 13 TO THE DECISION

WORK PROGRAMME 2010

Cooperation

THEME 7
TRANSPORT (INCLUDING AERONAUTICS)

- Call identifier: FP7-SST-2010-RTD-1
- Date of publication: 30 July 2009
- Deadline¹: 14 January 2010 at 17:00:00 (Brussels local time)
- Indicative budget²: EUR 93,79 million

The indicative distribution of the call budget is as follows:

- EUR 22,895 million for Group of topics (GT) N° 1: The development of rail freight transportation.
- EUR 20,895 million for Group of topics (GT) N° 2: Eco-innovations in shipbuilding and waterborne transportation.
- EUR 40 million for Group of topics (GT) N° 3: The "electrification" of road and urban transport.
- EUR 10 million for Group of topics (GT) N° 4: The rest of topics of this call.

The budget for this call is indicative. The final budget awarded to actions implemented through calls for proposals may vary:

- The final budget of the call may vary by up to 10% of the total value of the indicated budget for each call; and
- Any repatriation of the call budget may also vary by up to 10% of the total value of the indicated budget for the call.

¹ In case the budget of one or more topic groups could not be consumed (totally or partially), the remaining budget shall be transferred to the other topic groups in accordance with the opinion of the evaluation review panel.

• Topics called:

Activity / Area	Topics called	GT N°	Funding Schemes
7.2.1. THE GREENING OF SURFACE TRANSPORT			
7.2.1.1. The greening of products and operations	SST 2010.1.1-1. Carbon footprint of freight transport	1	CP-FP (small or medium-scale focused research)
	SST 2010.1.1-2. Energy efficiency of ships	2	CP-FP (small or medium-scale focused research)
	SST 2010.1.1-3. Attenuation of ground-borne vibrations affecting residents near railway lines	4	CP-FP (large scale integrating project)
	SST 2010.1.1-4. Advanced after treatment solutions for mitigation of emissions from ships	2	CP-FP (small or medium-scale focused research)

¹ The Director-General responsible may delay this deadline by up to two months.
² Under the condition that the preliminary draft budget for 2010 is adopted without modifications by the budget authority.

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TERMINOLOGY

SST 2007-2013

- **Work Programme organised by ACTIVITIES**
 - 5 activities in line with the strategic objectives, to ensure impact and facilitate visibility and understanding
 - +1 cross cutting activities in support of SST
- **Activities are sub-divided in AREAS**
 - Research areas are broad domains of investigation, stable during the coming years, and whose expected impacts are indicated
- **Areas are addressed by TOPICS**
 - Identification of research contents to be addressed by proposals to be submitted in the call.
- **Topics are either Level 1 or Level 2**
 - According to the degree of specification in the WP
- **Topics are in groups of topics**  **Since 2010**



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TOPICS LEVELS

SST 2007-2013

Level 1 (GENERIC)



- Define broad fields of activity
- Normally common to all modes
- Encourage synergies between modes
- Proposal do not need to cover all the topic content

4 Introduction of hydrogen and fuel cell technology in surface transport applications by 2020 as an economic, safe and reliable alternative to conventional engines³⁰.

5 Reduction of external and interior noise and vibration. For road and rail transport: the target will be a 10 dB²¹ reduction compared to present noise levels particularly in urban environments.

THE FOLLOWING TOPICS ARE FOR LEVEL 1

SST 2007.1.1.1. Promoting the use of bio-fuels and alternative hydrocarbon fuels

New technologies and innovative solutions for the progressive introduction of bio-fuels and alternative hydrocarbon fuels.

Proposals will cover one or more of the following subjects:

1. adaptation and optimisation of existing power trains (based on gasoline or diesel), systems (including after-treatment), components and materials;
2. new power train concepts with emphasis on efficiency and environmental impact, covering power ranges for all transport modes;
3. effective, safe and clean delivery of these fuels at distribution points.

International Cooperation with Brazil, USA and India is suggested.

Funding scheme: Collaborative Projects small or medium-scale focused research, Coordination and Support actions aiming at coordinating research activities

THE FOLLOWING TOPICS ARE FOR LEVEL 2

SST 2007.1.1.3. Integrating natural gas power-trains

Demonstrate the full potential of natural gas when applied to a custom designed light duty engine (including, for instance, higher or variable compression rates) integrated with specific after-treatment systems dealing more efficiently and at a lower cost than current technology with the reduction of methane emissions in addition to the other pollutants already treated by three way catalysts. Advanced storage systems and vehicle architectures, as well as multi-grade fuel tolerance and fuel flexibility are additional features to be researched.

The research will lead to increased efficiency by 10 % compared with diesel engines of today (2006), particularly at part load, and ultra low emissions (better than EURO 6 and US tier 2).

Funding scheme: Collaborative Projects large scale integrating projects

Open in call: FP7-SUSTAINABLE SURFACE TRANSPORT (SST)-2007-RTD-1

Level 2 (SPECIFIC)



- Mission oriented
- Explicit in their formulation
- Mostly specific to one mode
- Proposals need to cover all aspects of topic content

examples



PROPOSALS apply to TOPICS

SST.2011.x.y.z

Each **TOPIC** (SST. 2011. x.y.z.) refers to an Activity (x), an Area (y) and specifies the type of proposal in terms of:

→ S&T Content

→ Scale



→ *Since 2010* ◆ Small Scale : EC funding less than 3 M€
◆ Large Scale : EC funding more than 3M€



→ Funding scheme

◆ Collaborative Projects: CP,CP-IP,CP-FP, CP-SICA

◆ Coordination and Support Actions: CSA-CA, CSA-SA)

Topics are either **Level 1** or **Level 2**

According to the degree of specification in the WP



→ *Since 2010* **Groups of topics (4 groups)**

Calls Specifications

FP7-SST-2011-RTD-1

- Date of publication: **20th July 2010**
- Deadline: **2nd December 2010**
- Total indicative budget RTD-1: **91.25 M€**

Funding schemes :

→ CP: Collaborative Projects - **Call RTD-1**

◆ *Small & medium scale < 3M€ EC funding*

◆ *Large scale > 3M€ EC funding*

→ CSA: Coordination Support Action

◆ *Coordinating (Also CP's): min 3 partners, from different MEM or AS states.*

Since 2010

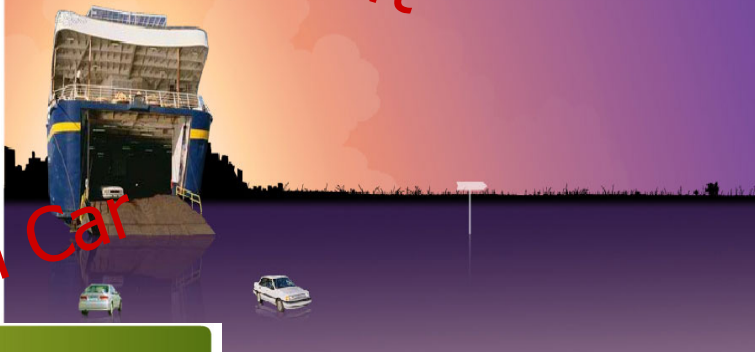


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Greening

Modal Shift



Green Car

Competitiveness

Activities



Cross Cutting

Safety

Urban





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ACTIVITY 1: Greening

7.2.1.1 Products and Operations

Environmentally friendly transport through the greening of transport products and operations.

Expected impact



- Contribution to CO₂ reduction emissions: 30% by 2020, 60% to 80% beyond 2050
- Reduction of exhaust and local emissions in view of compliance with future legislation
- Increased share of bio-fuels and alternative hydrocarbon fuels with improved efficiency
- Support the introduction of hydrogen and fuel cells
- Reduction of external and interior noise and vibration
- At least neutral impact to climate change



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ACTIVITY 2

Modal Shift & Decongestion

7.2.2.1 Logistics and intermodal transport

Better transport efficiency between modes while recognising complementarities

Expected impact



- Improve the interfaces between transport modes
- Maximize cargo capacity
- Optimize logistics services within global supply chains
- At least neutral impact on climate change



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ACTIVITY 3: Urban Mobility

7.2.3.1 New Transport and Mobility Concepts

Expected impact



- Introduction of new urban transport solutions and technologies
- Inclusion and better access for all
- Reduction of CO₂, pollutant emission and noise
- Increased safety and energy efficiency
- At least neutral impact on climate change



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ACTIVITY 4

Safety & Security

7.2.4.1 Integrated Safety and Security

Technologies and solutions to improve safety and security in transport operations and protect of vulnerable users

Expected impact



- Increase the level of safety and security of the transport system and its components in order to reduce the number of fatalities and the level of injuries caused by transport accidents
- Decrease the level of human error and increase the safety performance of the infrastructure through positive interactions between pilot/infrastructure/vehicle
- Maintain the level of safety and security in transport, whilst contributing to mitigation of GH effect and reduction of CO₂ emission
- At least neutral impact to climate change



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ACTIVITY 5: Competitiveness

7.2.5.1 Industrial Processes

Cost effective processes to strengthen competitiveness.

Expected impact



- Reduction of development lead time
- Reduction of manufacturing and construction cost
- Reduction of maintenance cost
- Increase employment levels, create new skills and improve working conditions
- Emergence of new high-tech SMEs
- At least neutral impact on climate change
- Strengthening of global competitiveness of European Industries





ACTIVITY 5: Competitiveness

7.2.5.2 Products and Services

Product and system concepts meeting end-user needs, ensuring quality and services strengthening European competitiveness.

Expected impact



- Maintain market-share for large cruise ship production
- Develop the new generation of surface transport products
- Decrease CO2 emissions and other pollutants
- Create new niche markets
- Improve the quality and competitiveness of surface services
- Reduce maintenance and inspection costs
- Create economic development, jobs and new skills with a special focus on green technologies
- Emergence of new high-tech SMEs
- At least neutral impact on climate change



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ACTIVITY 6: Cross Cutting

7.2.6 For Sustainable Surface Transport

Support an integrated surface transport system across SST's strategic activities

Expected impact



- Support programme implementation
- Structure European Research
- Creation of a SST ERA
- Support existing and emerging EC policies
- Considering at least neutral impact to climate change
- Achieve SST expected impacts and ensure at least a neutral impact on climate change



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ACTIVITY 7: European Green Car Initiative

7.2.7 The European Green Car Initiative

Research for improved; combustion engine heavy duty vehicles, electric & hybrid vehicles, intelligent transport systems together with logistics and mobility.

Expected impact



Defined for each topic



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The European Green Cars Initiative

● 2010:

- Focus on electric vehicles and optimal integration of electric and electronic components
- Joint call on electric storage electrochemistry

● 2011:

- Three pillars are covered
 - ◆ Long distance transportation: heat recovery, future power trains concepts
 - ◆ Electrification: light duty vehicles, integrated thermal management, specific safety issues
 - ◆ Co-modality: urban/interurban shipments, travellers information systems, exploiting capacity, supply chain management
- Joint call on electric storage manufacturing and eco-design
- ERANET+ Electromobility



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Final Information





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RTD Surface Transport Team



FP7-SST-2011-RTD1

Get connected with Surface Transport!!

Contact:

Rail Freight : peter.crawley@ec.europa.eu

Maritime Eco Innovation :

dominique.ramaekers-jorgensen@ec.europa.eu

European Green Car: maurizio.maggiore@ec.europa.eu

Other Topics for call: joost.de-bock@ec.europa.eu



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Further information

- **CORDIS:**

<http://cordis.europa.eu/fp7/dc/index.cfm>

- **Transport web site:**

→ RTD: http://ec.europa.eu/research/transport/index_en.html

→ TREN: http://ec.europa.eu/transport/index_en.html

- **Helpdesk:**

http://ec.europa.eu/research/new_hp/index.cfm?pg=enquiries

- **Call for experts (evaluators and reviewers):**

<http://cordis.europa.eu/emmfp7>





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Thank you for your attention !

