Intelligent multimodal mobility in France

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Summary
摘要

- **Transitions are identified processes to take account of evolutions of the society and the technologies and implement new political orientations**

- 交通需要适应城市社会进步和科技发展以及政策导向的变化要求

  - 生态影响

  - 能源要求

  - 财政制约

    - **Transition driven by ecology**

    - **Transition driven by energy**

    - **Transition driven by finances**

- **Interoperability and governance**

- 协作和管理

- **European and international cooperation**

- 欧洲及世界合作

Transition driven by ecology
交通受生态因素制约

- **The process launched in 2007 under the name "Grenelle" is reinforced and complemented in 2012**

  "Grenelle"项目始于2007年，于2012年得到强化和完善。

- **First " Conference for Environment" 2012 September 15th**

  第一届"能源论坛"于**2012年9月15日**举行

- **Stakes: Climate change, Natural resources, Biodiversity**

  主要关注：气候变化，自然资源，生物多样性

- **General political orientations:**

- 大体政策导向

    - **Sobriety: reduction of energy and emissions in transport**

      减少交通领域能源的使用和**j**减少排放

    - **Renewable energies**

    - 可再生能源

    - **Develop new products and services for the new global sustainable economy**

    - 面向经济全球化可持续性开发新的交通产品和服务

Transition driven by energy
交通受能源因素制约

- **The process is not yet officially launched, but studies are in progress in several domains, including transport**

  项目进程未正式开始，但是在很多领域的相关研究已开始进行。

- **Two "green" initiatives in transport are confirmed:**

  在交通方面两个"绿色"计划已得到确认

  - **Tax on lorries (per kilometre on a specific road network, in complement of toll roads) to be implemented in July 2013**

    征收货车税（在特定的公路网络中按里程数征收，于收费公路实施）

    将以**2013年7月**起实施

  - **Information on CO2 emissions linked with transport services , to be implemented in October 2013**

  - 二氧化碳排放信息与交通服务挂钩，将于**2013年10月**起实施

  » **Information technologies can be used**

  » 信息技术将得以应用

- **Information technologies (ITS) can be used to reduce congestion and promote the use of public transport, including new emerging   modes of transport (like electric car pooling, transport on demand..)**

- 交通信息系统（**ITS**）可以用来减少交通拥堵鼓励公共交通的使用，同时也促进不同模式交通之间的接驳（例如电能汽车停靠，定向交通等）

Transition driven by finances
交通受经济因素制约

- **The name of the tax on lorries (already mentioned) is called "ecotaxe" because the revenue is obviously needed to finance the transport policy**

  前面提到的卡车税被称为"生态税"，因为这项税收将资助交通政策。

- **The investment plan of interurban infrastructures is under revision**

  城市间交通设施的投资计划，正在修订中。

- **Local authorities have also to reduce their expenses, both for operation and investment**

  地方政府同时也减少了在交通运营和投资方面的预算。

- **They are also thinking about new organization to simplify the decision making process and as far as possible to mutualize some costs**

- 同时也在探讨建立新的决策系统简化流程，达到节约开支的目的。

- **They try to identify innovations in mobility and to encourage mobility services (like carpooling) with very small impact on public funding and significant reduction on congestion.**

- 尝试交通方面的创新，以及鼓励无需政府大量资金投入并可显著缓解交通拥堵的交通服务（泊车系统）

Information can have a great effect to help the transitions
信息可以对交通产生非常大的帮助

- **The studies made in several cities to propose a sustainable mobility plans result in following conclusions:**

- 在很多城市进行的可持续交通规划的研究，得到如下结论

  - **Decisions of the actors depend on their previous experience on the transport modes, and in general there is a very poor information available on the new services or innovations they could use**

  - 影响决策的因素通常基于以往经验，一般情况下，对于新的服务或者其他创新来说，可供参考的信息非常有限。

  - **When they have the effective possibility to change their organizations, they are ready to evaluate the advantages of new services and to change their habits**

- **Many ideas of services helping sustainable mobility are based on ITS services (location, identification, demand-reactive tariffs, real time information on perturbations or even forecasts...)**

- 很多有利于可持续交通的新的服务都是基于**ITS**服务的（定位，身份认证，收费，实时交通拥堵信息甚至包括天气预报等）

- **ITS deployment is a relatively long process, which needs professional management, especially if interoperability is required**

- **ITS**的**zhnkai**是一个相对漫长的过程，需要专业的管理，特别是部门之间的协同工作。

Interoperability: Why to build it ?

协同工作：为什么要共同工作

Building an ITS system is in general expensive and time consuming. Possible users can't afford efficient ITS at reasonable price if they imagine to use it alone. Interoperability allows to:

总体来说，建立**ITS**工作系统是一项非常昂贵且耗时的工作。如果只是独自使用，可能的用户无法负担有效的**ITS**工作系统。

- **Share the development costs between many users**

  使用者公摊系统成本

- **Solve a lot of specific questions and answer to various needs, increasing the number of possible clients**

  解决一系列特定问题，并且可以满足多样的需求，吸引更多的潜在用户

- **Preserve existing systems (backward compatibility) and previous clients**

  维护现有系统（之前的兼容部分）和之前的客户

- **Develop new functionalities progressively when they are required by the clients**

  满足客户的需求，逐步开发新的功能

协同工作的不同方面（1）

Based on various experiences, it is necessary to consider:

基于以往各方面的经验，我们必须考虑到如下几个方面

1.Organisational interoperability

组织的协同性

- **Business goals**

  商业目标

- **Modelling processes and bringing about collaboration of entities who wish to exchange information and have different internal structures and processes**

- **Address the requirements of the community of the users by making services available, easily identifiable, accessible and user-oriented**

  通过有效的，易于识别，可达以及用户导向的服务，体现用户群的要求，

- **Organize going in and out of the circle of partners**

  计划合作方的参与及推出模式

- **Identify possible misuse of the system and take preventive measures and mitigation of consequences of eventual dysfunctions**

  指出系统可能出现误用情况，并采取预防措施，缓解功能障碍产生的一系列影响

协同工作的不同方面（2）

2. Semantic interoperability
语义的协同性

- **Ensuring that the precise meaning of exchanged information is understood by any other application in the system, even it was not initially developed for the purposes of the interoperable organisations**

  确保交换的信息的精确含义可被系统中的应用认可，甚至最初不是为交互工作所开发的。

- **Allowing the combination of information received from external partners with other information resources and process it in a meaningful manner.**

  可以接纳不同信息来源的，合作伙伴的外部信息，并且以一种有效的方式处理

- **Allowing multilingual application**

  支持多语言的英用

- **Manage the necessary evolutions of the conceptual data model and provide the successive versions of the reference documents according to the needs of the developers and the users**

  对数据进行必要的更新，针对开发者和使用者的需要，提供连续的不同文件版本

协同工作的不同方面（3）

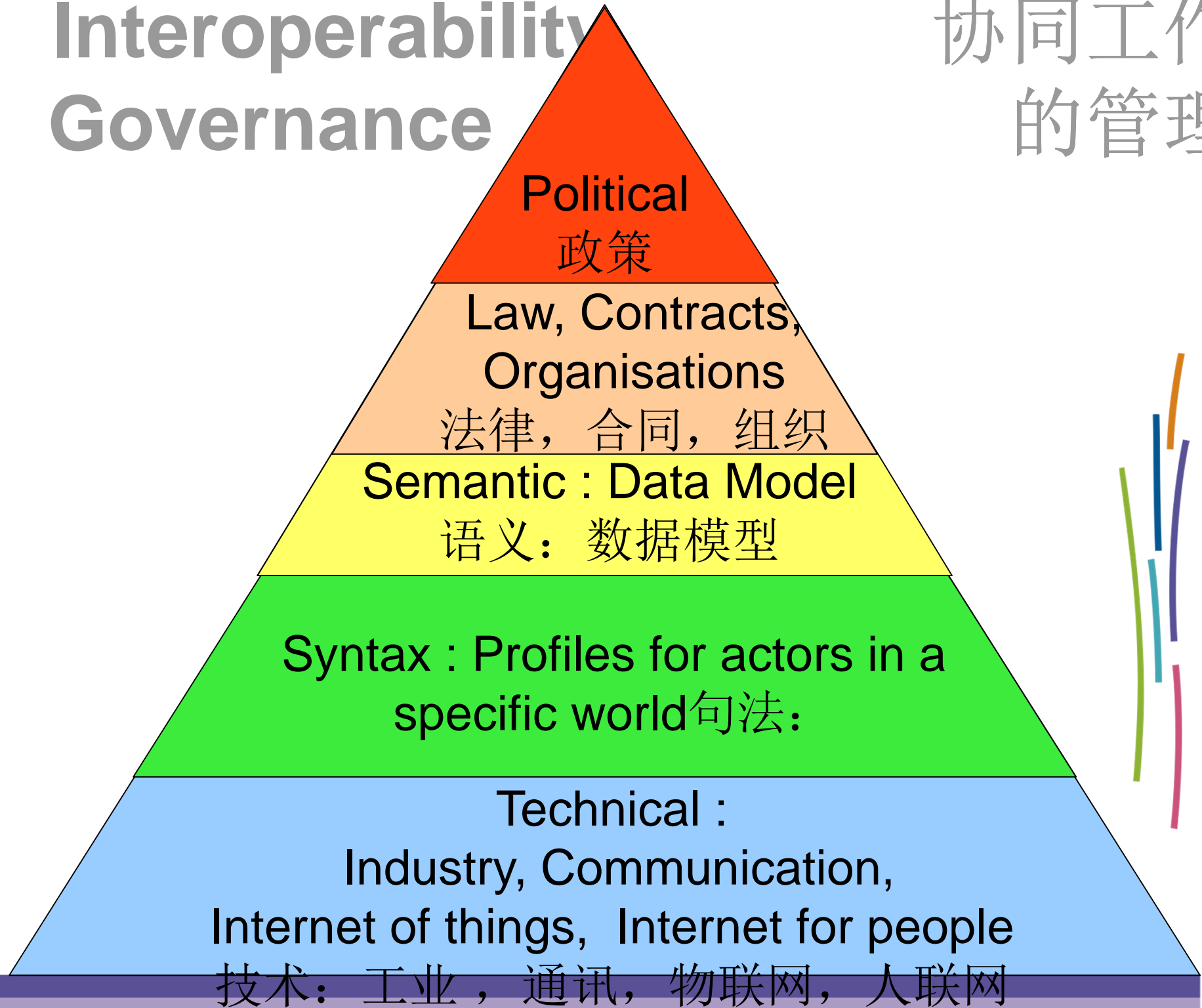## 3. Technical interoperability

技术的协同性

- **Linking computers, mobile devices, "intelligent things" together to create systems and services with a level of quality appropriate to the context of usage**

连接电脑，手机终端，"智能的一切"，创建符合使用需要的恰当质量水平的系统和服务。

- **Interconnection service, open interfaces**

连接服务，开放接口程序

- **Data integration and middleware**

数据融合，中间设备

- **Protection of data (both personal and commercial)**

数据保护（个人数据，商业数据）

- **Data presentation and exchange**

数据展示及交换

- **Accessibility and security**

可达性和安全性

- **Safety of use of applications (alone and in combination with others, eg; distraction of vehicle drivers...)**

使用的安全（独自使用以及和其他人共同使用，例如，驾车者受其他因素影响）

Interoperability Governance

协同工作
的管理

Political
政策

Law, Contracts,
Organisations
法律，合同，组织

Semantic : Data Model
语义：数据模型

Syntax : Profiles for actors in a
specific world句法：

Technical :
Industry, Communication,
Internet of things, Internet for people
技术：工业，通讯，物联网，人联网

Ministerial Roundtable
部长圆桌会议

- **19th ITS World Congress 2012 in Vienna**

- **第19界世界ITS论坛于2012年在维也纳举行**

  - **Ministerial round table invited by :**

  - 部长圆桌会议由以下人发起

    - **Doris Bures, Austrian Federal Minster for Transport, Innovation and Technology,** 奥地利联邦交通，创新和技术部

    - **and Siim Kallas Commissioner for Transport** 交通特派员

  - **Composed of Transport Ministers from:有以下单位参加**

    - **EU Member States** 欧盟成员国

    - **OECD member countries and BRICS members as well as further ITS relevant countries**

    - **OECD成员国和BRICS成员以及未来ITS相关成员国**

  - **and international organizations**

  - 以及如下国际组织

    - **ITF International Transport Forum** 国际交通论坛

    - **IRU International Road Transport Union** 国际道路交通联合会

    - **UN/ECE - United Nations Economic Commission** 联合国经济署

    - **UITP - International Association of Public Transport** 国际公共交通协会

    - **IBEC - International Benefits, Evaluation and Costs Working Group**

      国际利润，预测和成本工作组

Debates and discussions
争议和讨论

- **Areas of debates** 争议

  - needs and challenges for successful ITS implementation strategies,

  - 成功的ITS实施战略的需求和挑战

  - success stories and results of already implemented ITS policies and its impact on transport, environment and the society in general,

  - ITS政策已实施的成功案例及成果，以及对交通，环境和社会的影响

  - needs for further deliberations and discussions, in international fora and within the framework of next ITS World Congresses

  - 需要进一步讨论集商议的，在国际论坛及下届ITS国际论坛的架构下讨论

- **Existing ITS policies** 现有的**ITS**政策

  - Vehicle 2 Vehicle, Vehicle 2 Infrastructure, Infrastructure 2 Infrastructure Communication Services (Cooperative Systems)

  - Co-modal Travel Planner

  - Electronic Tolling

  - Efreight

  - Traffic and traveller information services

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Agreement-1
共识－1

- **Joint Statement called "Smarter on the way"**

- 联合声明"Smarter on the way"

- **Mobility has become a high priority in today's society and is central to our individual well-being and to our common economic development.**

- 交通已经成为当今社会的优先考虑的议题，并且是每个人舒适生活的核心，同时也是共同经济发展的重要因素。

- **At the same time, the ever increasing demand for mobility has created or amplified the major transport issues: accidents and casualties, traffic congestion, emissions including greenhouse gases, and energy consumption and dependency**

- 于此同时，对于交通日益增长的需求，强化了主要的交通问题：事故和伤亡，交通拥堵，交通排放，包括温室气体的排放和能源消耗及依赖

- **ITS have to be seen as an effective instrument for policy makers to achieve transport policy objectives with respect to safety, efficiency and environmental sustainability and in order to save public funds.**

- 对于政策制定者，ITS被认为是一个有效的手段，以达到交通的安全，有效，环境的可持续并且节约公共开支的目的

- **As the ITS application needs may differ from region to region, the biggest potentials and benefits can only be realised if the foundations of ITS solutions are put in place in an interoperable and harmonised, seamless and user-friendly way, and ideally on a global scale.**

- 因为每个地区对ITS应用的需求有所不同，最大的可能性只能是对于ITS的资助投入必须在协同工作的前提下，无缝衔接，方便使用，并以达到世界规模为最终目标

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Agreement-2
共识－2

The Ministers declared their support

部长声明将支持

- **for an increased political commitment to integrating appropriate ITS technologies and services into national transport policies, and**

- 整合相应的 **ITS**技术及服务进入国家及交通政策

Request 要求

- **the global ITS community to identify upcoming challenges, opportunities and success stories supporting a more accelerated deployment of ITS solutions on a global scale, and**

- 国际化的**ITS**机构需要明确未来的挑战和机遇，基于成功案例，在世界范围内更快速的提供**ITS**解决方案

Invite 邀请

- **the Ministerial Round Tables of future ITS World Congresses to discuss progress made so far and to identify priority issues for international agenda setting, inviting relevant international organisations and legal bodies to act.**

- 未来的部长圆桌会议将明确国际优先议题，邀请相关的国际组织机构和法律机构进行实施。

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Conclusions
结论

ITS are recognised as a support tool for transport policies, under the requirement of interoperability.

ITS在协同工作的前提下，可作为一项交通政策的支撑工具。

Regular Exchanges on research, organization and standards are necessary to succeed in building and maintaining interoperability, from local to international levels.

在研究，管理，以及标准方面需要日常的交流，以便从地方到国际的层面内建立并维持**ITS**的协同工作性。

We hope that THNS will play a role in these exchanges, especially on academic fields also to help

我们希望借次论坛，给大家提供信息交流的机会，特别是学术方面方面，并且我们也希望在如下领域开展合作

- **Cooperation between mayors of cities (for instance EU-CHINA Mayors Forum meeting hold in Brussel on 2012 September 19-21)**

- 城市间的合作（欧洲－中国市长论坛已于**2012**年**9**月**19**－**21** 在布鲁塞尔举行

- **Training programs for experts and non experts, in France and in China**

- 专家或非专家的培训活动，在法国及在中国

- **Common projects, especially when they have an objective of**

Thank you

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