

National Science, Technology and Innovation Initiatives

# Technology Platforms in Turkey

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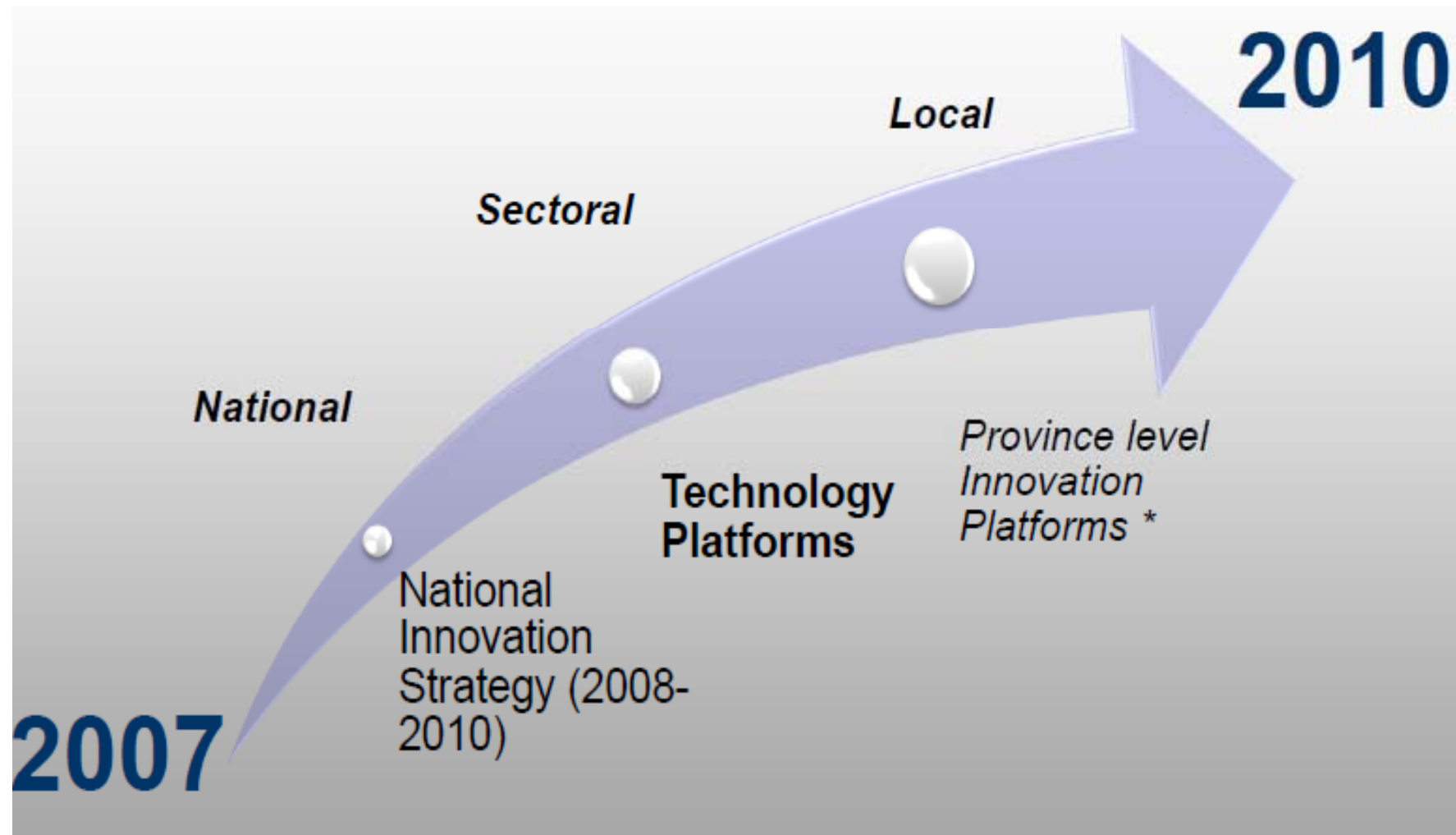
# Presentation outline

- Theoretical foundations of Technology Platforms (TPs)
- Background for the establishment of Turkish Technology Platforms
- Turkish National Innovation System (NIS) and main actors
- TPs: Objectives, Focus, Process & Outcomes
- Points to consider when establishing TPs

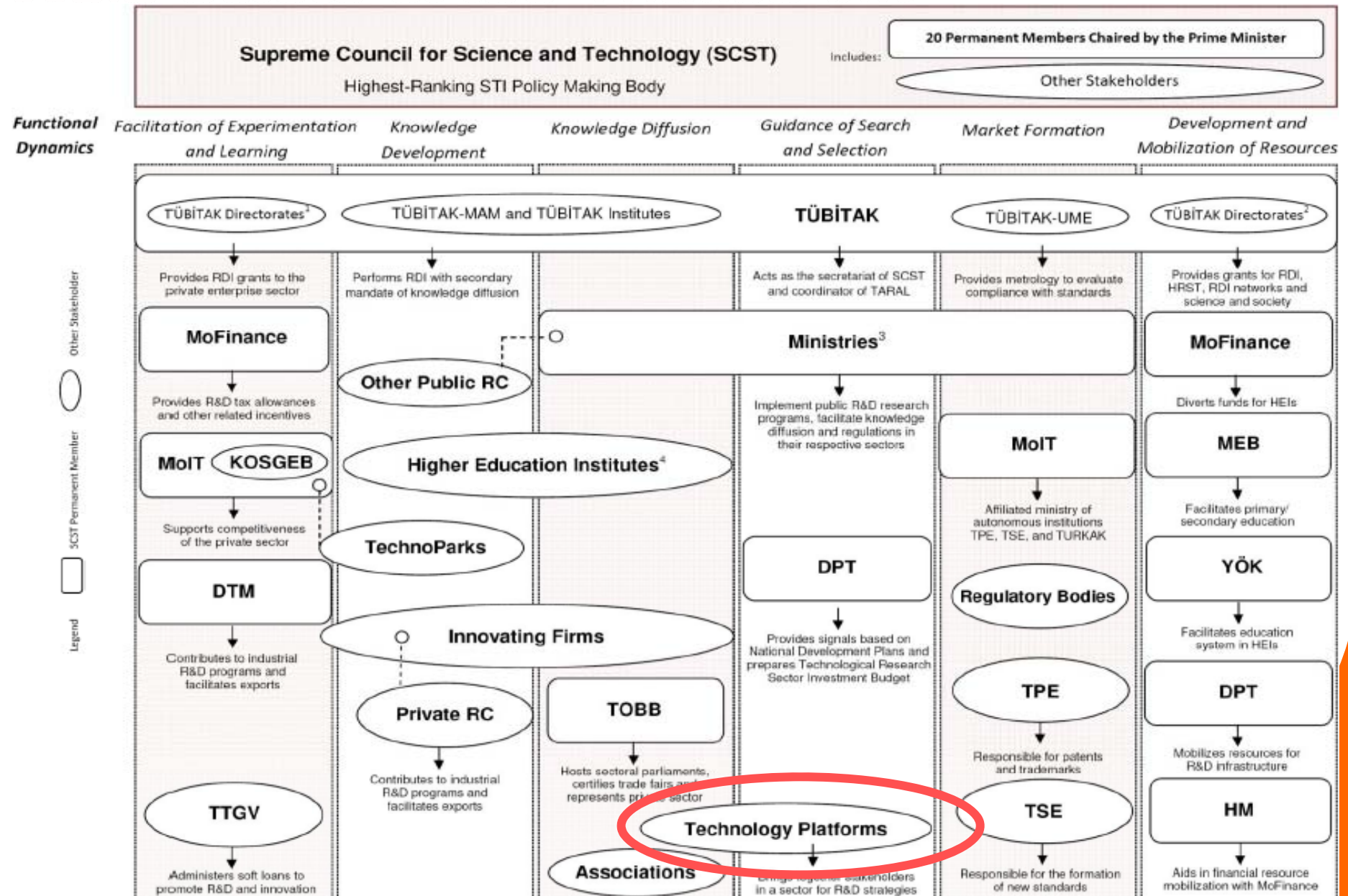
# Technology Platforms - Background

- Innovation is a creative, complex and risky activity, and collaboration networks provide immense value by networking, distributing risk and proving cost efficiency (Powell et al., 1996; Powell et al., 2005)
- The emergence of Innovation Systems considering the systematic involvement of stakeholders in the innovation process and their interaction
- Innovation systems at the national (holistic), regional (local capabilities) and sectoral/technological levels (thematic specifications)
- TPs are based on the assumption that sectoral needs and dynamics differ, thus each sector requires a specific innovation approach. This provides depth and variety for innovation approaches

# Technology Platforms – Background



# Main actors of the Turkish NIS (Yetis, 2010)



# Technology Platforms in Turkey

- SCST Decree (2006/201): “to prepare National Innovation Strategy and Action Plan, and to develop necessary supporting mechanisms for the implementation of the strategies”
- Technology Platforms (TPs) have been initiated by TUBITAK in 2007 within the framework of the SCST Decree
- The overall aim is “ to provide the participation and impact of enterprise sectors to formulate Innovation policies and to increase Innovation performance”

# Technology Platforms - Objectives

- TPs support the sectoral dimension of STI policy. They function as an interface to integrate the business perspective into policy
- TPs are expected to enhance the innovation performance of private sector and provide an effective knowledge sharing between industry and academia, thus
- TPs play an important role for the coordination of the national research activities through consultations with various stakeholders for a sustainable growth
- TPs function as a mechanism for the participation of Turkish industry and research in the European and other TPs around the world
- Technological Platforms (TPs) are one of the best tools of forming and sharing long-term sectoral strategies in order to realise Vision 2023 goals



# Technology Platforms - Initiation

- Meetings and workshops were held in order to present the TP concept and prioritise sectors for the formation of the platforms
- BCG matrix analysis (Analysis of Business Growth Rate vs Relative position in terms of market share) and export volume parameters
- Selection criteria:
  - High portion export volume and market share
  - Response to the pressures from increasing competitiveness of other emerging markets due to the low factor prices
  - Potentials for higher R&D and innovation based value added for sustainable competition in the long run



# Technology Platforms – Sectoral focus

- First five TPs established included:
  - Automotive
  - Electric and Electronics
  - Metal
  - Textiles
  - Maritime Technology (Critical impact potential)
- The initiative was then extended to include new sectors :
  - Energy
  - Pharmaceuticals (the highest share of imports in the Turkish economy)
  - Agriculture (as a sector with strategic importance)
  - Construction Technologies

# Technology Platforms – Launch & Process

- Opening meeting on 11 January 2007
- Workshops for setting up TPs
  - Establishment of committees to synchronise TPs
  - Definition of vision and mission of TPs
  - The positioning of TPs and their role
  - Preparation of platform roadmaps and implementation schedule
  - Application of ISBAP - TPs' networking activities are supported through the match-funds mechanism of ISBAP (Support Programme for the Initiative to Build Scientific and Technological Cooperation Networks and Platforms )
- TPs have hold various meetings and undertake studies to build the R&D and innovation strategy of their sector

# Technology Platforms - Participants

- Each TP has its own management structure including a Programme Coordination Council, which brings together enterprise managers, faculty administrators and government representatives.
- Domination of private sector, e.g. the Automotive TP consist of:
  - Programme Coordination Council
    - TOFAS/FIAT, FORD, TEMSA, OPET, Bayraktarlar Holding, MARTUR, OSD, TAYSAD, METU, ITU, TUBITAK MRC
  - Workshop participants
    - Mercedes Benz, Uzel, Turk Tractor, FARBA, Inci Battery, MAN, Honda

# Technology Platforms - Outcomes

- Strategic Research Agenda to be utilized in conceiving and developing sectoral innovation policies
- Long-term research targets
- Strategic research plans, and roadmaps for their implementation
- Pre-competitive research proposals to apply for public R&D support
- Improved pre-competitiveness collaboration between the members of TPs and among TPs
- Leadership for the establishment of new TPs in other sectors

# Technology Platforms – Points to consider

- TPs are **NOT R&D and Innovation projects** themselves. They are the collaboration networks, which are expected to set RD&I agenda in the light of strategies developed
- TPs **should be pioneered by the industry** in collaboration with strong research partners. The participation of other stakeholders (esp. SMEs) are crucial for the adoption and implementation of strategies
- TPs are **NOT clusters**. Unlike clusters, which are organised at regional or local levels, TPs are national level initiatives
- **Competition within sectors is NOT an obstacle** for collaboration. TPs are characterised by pre-competition collaborations
- The **outcomes of TPs are NOT products or services**. The main outcomes are collaboration mechanisms, sectoral strategies, implementation plans and so on. Therefore the partners involved are not liable to provide Intellectual Property Rights plan
- TPs are **NOT sectoral associations**. They RD&I oriented collaborations, which are focused on long term sectoral strategies

**End of presentation**

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