# The Austrian approach in supporting a sustainable transport system by RTI funding activities



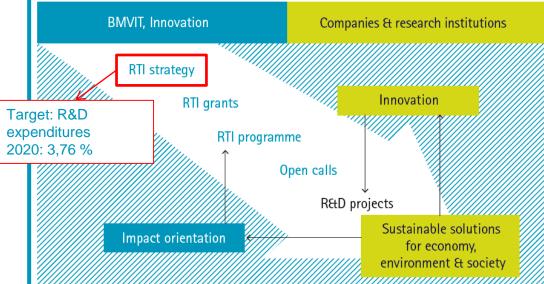


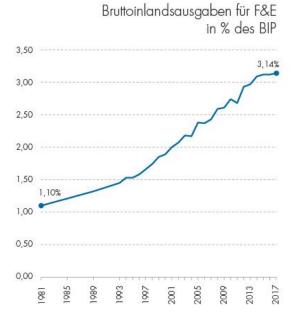
# **Austrian competences in Physical Internet**





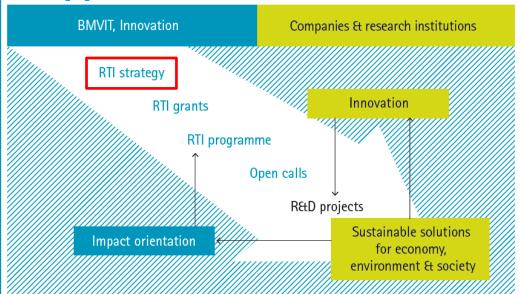
# **Applied Research within BMVIT**







# **Applied Research within BMVIT**

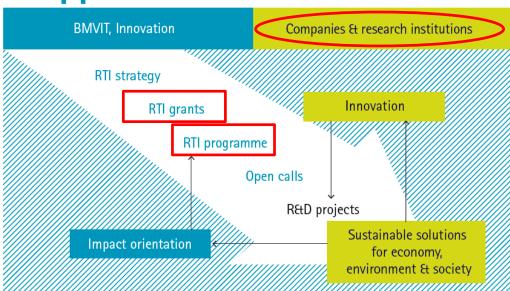


### - BMVIT's objectives:

- increase the research, technology and innovation intensity of the Austrian business sector
- Develop technologies for overcoming the grand challenges of the future
- Increase the number of people employed in the area of technology and innovation with special attention to proportion of women



# **Applied Research within BMVIT**



### Thematic RTI programmes for

- Mobility
- Environment and Energy
- Production
- o ICT
- Security
- o Space



# I Programme Design



# **Mobility of the Future**

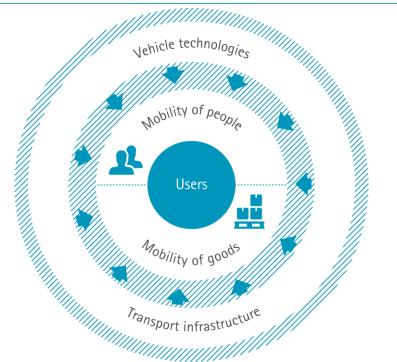
• Duration: 2012-2020

Budget: ~20 milion/year

4 thematic fields

Calls are managed by







# **Objectives of Mobility of the Future**

Strategic programme objectives

### Society

- Usability and accessibility of the transport system
- Sustainability forms and patterns of mobility
- Quality and availability of the transport infrastructure despite difficult economic conditions
- Ensuring the supply of goods and services

### **Environment** - Reducing emissions

- Reducing energy and resource consumption
- Balance of interests between transport route, human habitat and ecosystem

### Economy & Research

- Competitiveness in the transport sector
- Competency leadership in the area of mobility
- Building up and accelerating international cooperations

### **IMPACT:**

- economic growth
- improvements for environment
- improvemeths for society

### **OUTCOME:**

- new and improved products, processes, services, business models
- new knowledge by focusing on a specific application (e.g. patent, publication)



- Supporting technological innovation in the area of mobility
  - Supporting social and organisational innovation in the mobility system
- Strengthening the connection between RTI policy and transport policy
  - Expansion of knowledge and networks in the area of mobility



# **Mobility of Goods: 5 Main Research fields**



Sustainable Mobility of Goods in Areas of High Population Density



Sustainable Mobility of Goods in Areas of Low Population Density



**Multimodal Hubs** 



**Sustainable Transport Chains and Networks** 



**Innovative Means and Media of Transport** 

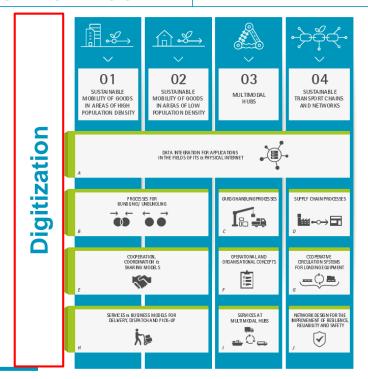


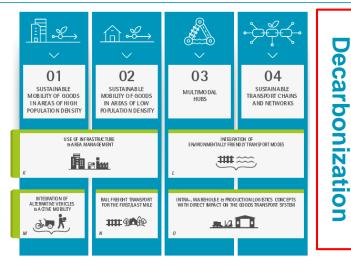
# 19 Research Topics



#### 11 MOBILITY OF THE FUTURE

### Sarah Bittner-Krautsack, Unit of Mobility and Transport Technologies







Technologies



#### 12 MOBILITY OF THE FUTURE Sarah Bittner-Krautsack, Unit of Mobility and Transport Technologies 02 03 01 04 01 02 03 04 SUSTAI NA BLE SUSTAINABLE SUSTAINABLE SUSTAINABLE MULTIMO DAL SUSTAINABLE SUSTAINABLE MULTIMO DAL MOBILITY OF GOODS MOBILITY OF GOODS TRANSPORT CHAINS MOBILITY OF GOODS MOBILITY OF GOODS TRANSPORT CHAINS IN AREAS OF HIGH IN AREAS OF LOW AN D NETWORKS IN AREAS OF HIGH IN AREAS OF LOW AND NETWORKS POPULATION DENSITY POPULATIO N DENSITY POPULATIO N DEN SITY PO PULATIO N DENSITY USE OF INFRASTRUCTURE INTEGRATION OF SHARFA MANAGEMENT ENVIRO NMENTALLY FRIEND LY TRANSPORT MO DES including DATA INTEGRATION FOR APPLICATIONS data IN THE FIELDS OF ITS & PHYSICAL INTERNET R 28 444 environmentally friendly PROCESSES FOR CARGOHANDLING PROCES SES SUPPLY CHAIN PROCESSES BUNDLING/ LINBLINDLING INTEGRATION OF ALTERNATIVE VEHICLES RAIL FREIGHT TRANSPORT INTRA-, WAREHOLDE & PRODUCTION LOGISTICS CONCEPTS FOR THE FIRST LAST MILE transport B: A CTIVE MOBILITY processes **##**←∞→**□** . A . C. (A) ### **P** modes COOPERATION, COORDINATION 8 OPERATIONAL AND ORGANISATIONAL CONCEPTS COO PERATIVE CIRCULATION SYSTEMS SHARING MODELS FOR LOADING EQUIPMENT cooperation IN NOVATIVE CARGO HANDLING TECHNOLOGIES MDDULAR LOAD UNITS WAGGONS SERVICES & BUSINESS MODELS FOR SERVICES AT NETWORK DESIGN FOR THE MEAN S A ND MULTIMODAL HUBS IMPROVEMENT OF RESILIENCE MEDIA OF REUABILITY AND SAFETY technologies TRAN SPORT services



# **II Results & Effects**



# **Preliminary results – Mobility of Goods**

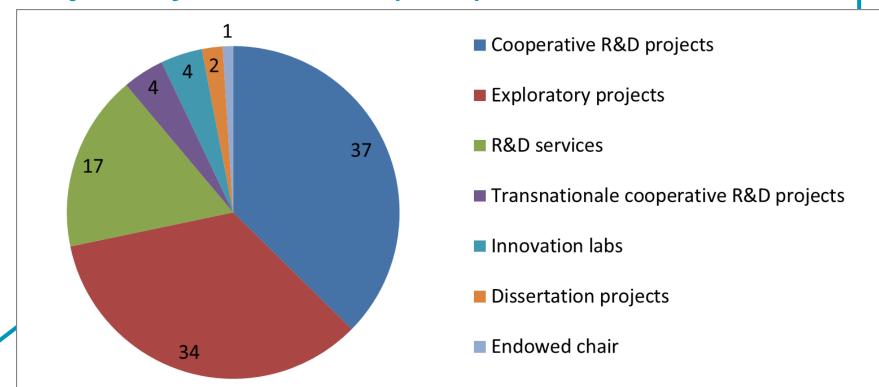
99 RTI-projects

21 Mio. EUR
funding

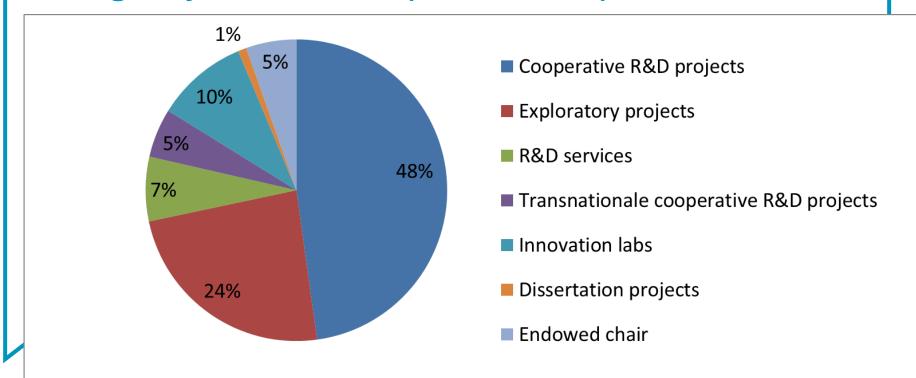
7
instruments



# **Projects by instruments (n=99)**



# Budget by instruments (n=21 M EUR)



#### 17 MOBILITY OF THE FUTURE

# **Effects**



- Improvements for Environment
- Improvemetns for Society

external factors



**Uncertainty:** 

risk unknown information

- Results of the projects:
  - products, processes, services and business models, knowledge

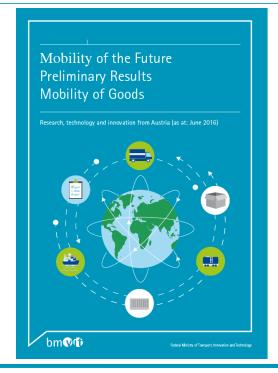


### RTI grants ...

- Don't have linear, but systemic effects
- Have cumulative effects
- Acts through a variety of external factors
  - Have long-term effects only

# **Brochure on Preliminary Results Mobility of Goods (2012-2016)**

- Printed version
- Online version
- Videos of PI related concluded projects





# **Creating Structures - Endowed Chair**

- Topic "Sustainable Transport Logistics 4.0"
- Funding: 1,2 M EUR (50 % of total costs)
- Johannes Kepler University Linz in cooperation with
  - Logistikum research and education institute of the University of Applied Sciences Upper Austria, DB Schenker, Österreichische Post AG, Hödlmayer International AG, Pfeiffer HandelsgmbH
- Position expected to be filled in 2018
  - <u>Vacancy for Professor for Sustainable Transportation Logistics with a</u> focus on the Physical Internet



# **Creating Structures – Innovation Labs**

- Topic "Urban Mobility Labs"
- Funding:
  - o max. 1 M EUR/innovation lab for max. 4 years
  - o max. 50 % of total costs
- 4/5 cover (also) Mobility of Goods





Eine Initiative des Bundesministeriums für Verkehr, Innovation und Technologie im Programm Mobilität der Zukunft

# **II Non-Monetary Supporting Activities**



# **Networking**

- Event series "Successful through innovation"
- Networking workshop(s) on
  - concluded R&D projects
  - women in transport logistics
  - dissertation projects
- Supporting for on relevant topics









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# **Linking with European initatives**



European Technologies Platform





IP 5: Technologies for Sustainable & Attractive European Rail Freight



## TRA 2018 in Vienna

- 16 -19 April 2018, Reed Messe Wien



Becoming a partner in the interactive (demonstration & show case) zone!

- Call for Interest
- Deadline: 15 September 2017





# Thank you.

### Sarah Bittner-Krautsack

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