# Exploring mechanisms for increasing innovation

## Vangelis Karkaletsis

*Research Director*
*Head of Software & Knowledge Engineering Lab*

Software & Knowledge Engineering Lab
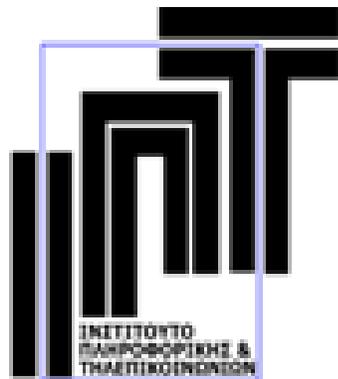
DEMOKRITOS

Goethe-Institut Athen, Tuesday, 27 November, 2018

## Outline

## Strategies for increasing innovation capacity

- Products and services for the industry
  - ⑩ Provision of knowledge-based products and services through co-creation with the industry, focusing on solving specific problems
- Synergies with industrial leaders
  - ⑩ Providing solutions customisable to their needs
- Spin-offs
  - ⑩ Participation in spin-offs and start-ups that deploy innovative products and services into the market
- Prototyping of innovative ideas
  - ⑩ Prototyping innovative applications and demonstrating their business potential
- Outcomes and lessons learned

**Services and Measurements**

## The story

- Research is the primary means to generate and **_share_** knowledge
- Sharing through *co-creation with industry*
- Aim is to leverage the multitude of systems, platforms, technologies, expertise and know-how, to solve specific problems

## The effect

- Four specialised laboratories at IIT, offering services and measurements
- Providing specialised studies and solutions for software applications
- Strengthening ties and developing partnerships with technology companies

## Synergies with industrial leaders

## The story

- NCSR-D is widely acknowledged for its research and innovation capacity
- Synergies with industrial leaders can significantly accelerate the transformation of research into practice

## The effect

- Several co-operations with industrial leaders
  - ❿ large IT companies, national leaders in banking industry, …
- NCSR-D solutions integrated in widely-used portfolios
  - ❿ Access to a wider network of industrial partners
- Fostering an "iterative" process for research and innovation

**Spin-off**

**NewSum:**
From Thesis to Market

## The story

- 2005 to 2009: Funded PhD on summarization
- 2009 to 2012: Evolution through collaboration (NCSR "D" - SciFY) and open source
- 2012 to today – Ready products and services

## The effect

- AI/NLP Infrastructure
- Mobile app
- National and International awards
- Ongoing spin-off effort

**Prototyping**

**StoryBot:**
Supporting journalists through AI
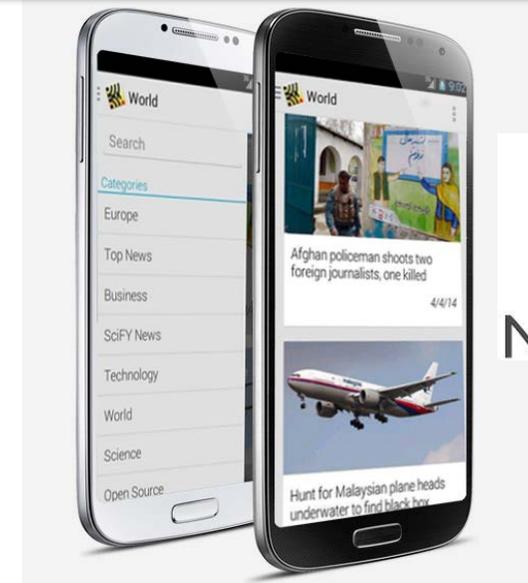
## The story

- Up to 2015 - Funded research on summarisation and personalisation
- 2016-2018 - Google DNI project

DIGITAL NEWS INITIATIVE

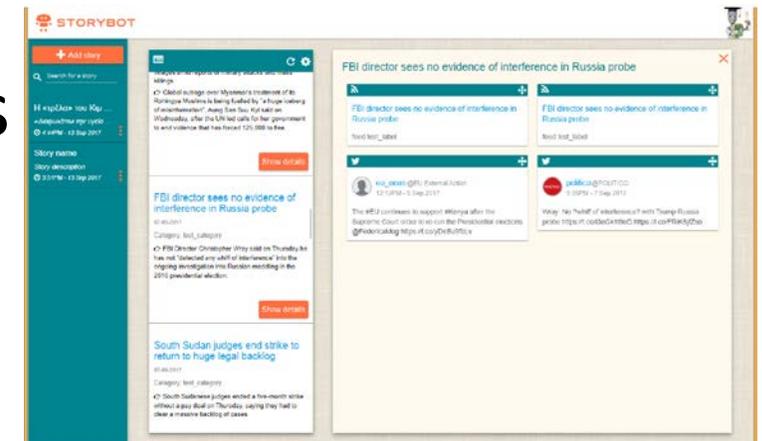## The effect

- Online platform
- Automated workflows in news production
- Robot-assisted journalism
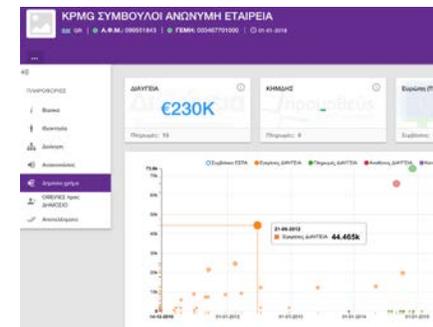
**Prototyping**

**OpJ:**
Evidence-based
stories

## The story

- Strengthen the re-usability of open data by journalists

  ❿ Support journalists to create evidence-based stories, supported by open data, while readers can directly refer to original sources

- 2017-2018 - Google DNI project

**DIGITAL NEWS INITIATIVE**

## The effect

- Online platform

  ❿ Company name matching and advanced search in public procurement

  ❿ 1-click provenance to original data source

  ❿ News enrichment through data tags

**Prototyping**

**DataStories:**
Bringing sense and structure to data

## The story

- Bridging the gap between the potential of open data, and extracting exploitable value from open data
  - ⓾2015-2018 – "YourDataStories": Research funded by EU (Horizon 2020)
- 2018-2020 - Google DNI project

## The effect

- An online ecosystem for journalists that brings sense and structure
  - ⓾A methodology for "conceptualising" and "humanising" data
- An innovative application that demonstrates the business potential of open (governmental) data

**Outcomes**

- Synergies with industry accelerates the transformation of research into practice
- Innovation capacity can be significantly benefited from networking, interaction and collaboration
  - ⑩ Among stakeholders with different knowledge, expertise, and understanding
  - ⑩ Significant benefits from an "iterative" interaction for research and innovation

- Setting up NCSR-D Digital Innovation Hub

Thank you !