



# SCRIBE: Semantic Credit Risk of Business Ecosystems

---

Professor Mark Lycett

Dr Sergio de Cesare

Professor Francesco Moscone

Dr Jane Marriott

# Core Motivation

---

Our observation is that credit access is hindered by a lack of understanding of the network of relations in which a business is embedded and the (in)direct effects that such networks have

# Other Issues to Consider

---

## Issues noted in developing the proposal:

- Availability of data necessary to model business ecosystems and their evolution over time
- Maturity of technical approaches
- Reconciliation and balancing of Public Law and Private Law where they are present in the same sphere of activity (in combining Open Data and Big Data)
- Balance between economic growth with individual and corporate rights in framework for data sharing

# Aim and Objectives

---

Our aim of is to develop a *network-based* framework for assessing credit risk alongside related information products that exploit that framework.

The objectives (and contributions) of the work are to develop:

- Network-based techniques for dynamically assessing the health status of SMEs in the context of their business ecosystems . . .
- The technological and methodological artefacts necessary to support the framework . . .
- Exploitable information products . . .
- An evolutionary network model of past, present and predicted future UK business ecosystems . . .
- The legal recommendations necessary to ensure appropriate levels of privacy within the business ecosystems . . .

# Deliverables

---

In line with the objectives, the core deliverables of SCRIBE are:

- Semantic data integration hub capable of storing and integrating big and/or open datasets of different origin and format;
- Methodological (ontology-based) approach to underpin the semantic transformation and integration of the datasets.
- Information products in the form of:
  - Real-time network credit risk assessment of SMEs
  - Product matching (e.g., network-based cross-sell, up-sell and product tailoring).
- Speculative 'apps'
- Evolutionary network model
- Legal recommendation

# Parties Involved

---



*Economic and technical  
research and development*



*Legal research and development*



*Data provision, testing and exploitation*



*Data provision, testing and exploitation*



*App-based exploitation*