

SRDC

Software Research & Development & Consultancy Corp.



SRDC

Suat Gönül, PhD (suat@srdc.com.tr)

Background

- Middle East Technical University (METU), Computer Engineering
 - BSc, 2010
 - MSc, 2012
 - Information extraction, natural language processing, semantic enhancement
 - PhD, 2018
 - Machine learning, lifestyle pattern recognition, adaptive digital interventions
- SRDC, 2008 – present
 - Part-time developer, engineer, researcher, project manager

SRDC Overview



- Founded in 2007 at Middle East Technical University (METU) Technopolis, Ankara, TURKEY
 - A spin-off company of the METU Software Research and Development Lab
 - www.srdc.com.tr



- A professional team of software engineers
 - 20 engineers
 - 8 with PhD degree in computer science



- Activities
 - Research and development
 - Product development
 - Software development service
 - Consultancy & training

Expertise

- Data analysis
 - Traditional methods, open source stacks
 - Federated learning, transfer learning
- Data modelling/interoperability
 - FAIRification
 - Findable, accessible, interoperable, reusable
 - Semantic web technologies
- Data security
 - Authentication, authorization
 - Consent management, audit management
 - Anonymization, pseudonymization

Research & Development

We put research into practice.

We enjoy a good international reputation in initiating and successfully completing R&D projects. We have marketed several products and services to the government and industry as a result of these projects. Our R&D activities are supported through several channels.



Most successful SME in Turkey in FP7 and H2020 programmes (w.r.t. budget)

Some Relevant R&D Projects

30+ projects in total

Smart/Connected Factories



eFactory

Text/Data Analysis

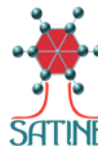


medolution
evolving better medical care

Semantic Mediation / Interoperability

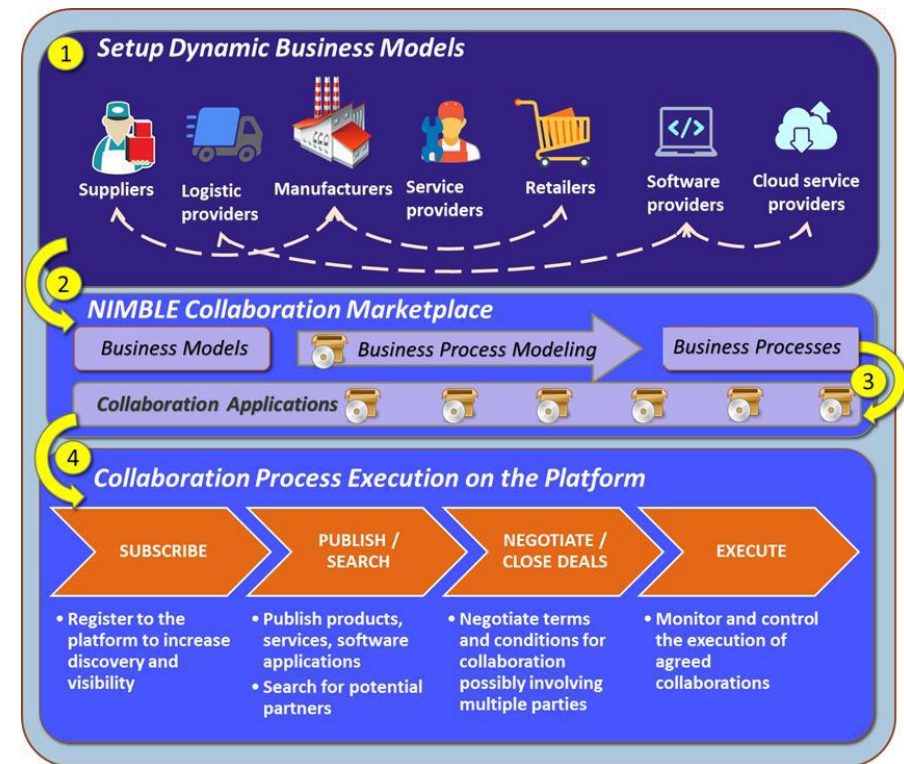


Advancing Plug & Play Smart Surveillance



The Emergency Interoperability Framework

- NIMBLE: *Collaboration Network for Industry, Manufacturing, Business and Logistics in Europe*
- H2020-FOF-11-2016 - Digital automation
 - Sub-topic: Collaborative manufacturing and logistics
- Objectives
 - Increased visibility in the market
 - Accelerating supply chain formation
 - Automating B2B data exchange
 - Connectivity with supply chain actors
 - IoT-enabled supply chain optimization
- A combination of eCommerce and B2B data exchange
 - Cloud services
 - Micro-service approach for registering, product publishing and business process execution
- Validation in progress
 - ~200 early adopters



Standardisation



Expansion for Universal Business Language (UBL) business processes

- Collaborative Planning, Forecasting and Replenishment



Serving as experts in CEN

- Business interoperability interfaces (BII), CEN/TC 434 (eInvoicing), CEN/TC 440 (eCatalogue, eOrdering, eFulfilment)

Initiated and led Global interoperability testbed (GITB) initiative

- Requirements and implementation



Standardisation of metadata query & exchange in relation to ISO/IEC 11179 metadata definition standard



Special Task Force – 370

- Standardisation for automated interoperability testing of distributed systems

Products



MantIQ Business Intelligence

- Data ingestion stack, KPIs, visualization, prediction



onAuth.io

- OnAuth implementation, identity management, encryption, authentication, authorisation, consent management, audit management



Semantic MDR

- Data model management, ISO/IEC 11179-based data element repository, interoperability mappings



TestBATN

- Conformance testing environment for interoperability standards

Consultancy & Training

- Conformance international domain-specific standards
- Data model, business process, architecture analysis
- Architecture / API design
- Setting up data analysis infrastructure

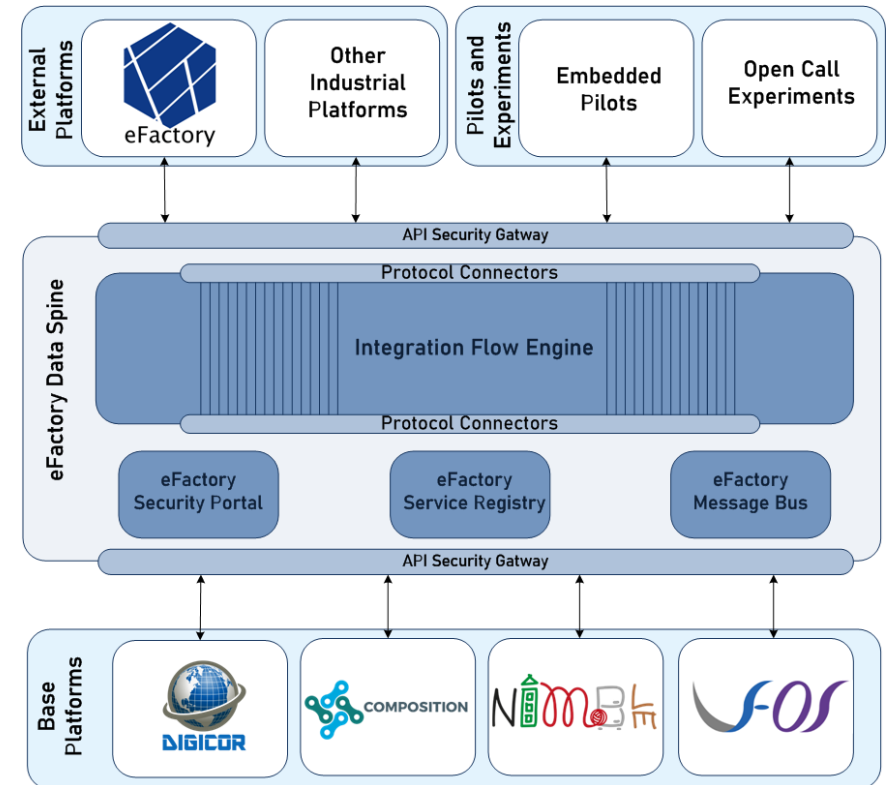
Expectations from the Upcoming Calls

- Partner for ICT-49-2020: Artificial Intelligence on demand platform
- Data analysis / algorithm development
- Platform development
- FAIRification of datasets
- Security / privacy / anonymisation

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- eFactory: *European Connected Factory Platform for Agile Manufacturing*
- DT-ICT-07-2018-2019 - Digital Manufacturing Platforms for Connected Smart Factories
- Objectives
 - Align the 4 base platforms to present a technologically integrated ecosystem ready for experimentation
 - Align the tools provided by the base platforms so that they can cross-operate in the new pilot scenarios
 - Extend and align the marketplace functions of the base platforms so that an open ecosystem can evolve
 - Sustained market of the eFactory platform through open-call for user interest and co-creation of advance solutions
 - Foster the growth of the federation and its user base by interlinking open and strategically important platforms



Synchronisation of Production and Logistics

- Many companies without systematic supply chain management
- A gap between production and logistics?
- Enabling / required capabilities
 - Production monitoring
 - Supplier production monitoring / delivery forecasts
 - Tracking materials and products inside factory
 - Holistic planning
 - B2B information exchange