

Real-time prediction based on digital twin for 3D printing

TRANSFORMING EUROPEAN INDUSTRY

2.1. FACTORIES OF THE FUTURE (FOF)

INDUSTRIAL SUSTAINABILITY

3.1. SUSTAINABLE PROCESS INDUSTRY (SPIRE)

Thematic brokerage workshops

EU Brokerage Event on Kets in Horizon 2020

Strasbourg, 17th October 2017



Investment in R&D: more 7 M€



Income: 1.25 M€



Staff: 15 Engineers, 3 PhD

- Expertise

- ✓ Digital Technologies for Prognostic & Health Management

- ⇒ Real-time Monitoring

- ⇒ Prognostic / Anticipation

- ⇒ Health Management

- ⇒ In-depth Data Analysis



- Examples of experience in EU-funded projects (started with FP4)

- **Twin-Control** (H2020-PPP-FoF): New concept for machine tool and machining process performance simulation > in progress
- **T-REX** (FP7-FoF-NMP-2013-8): Innovative strategies for renovation and repair in manufacturing systems
- **Power-OM** (FP7-NMP-2012-ICT-FOF): Use the electric current consumption monitoring and profiling to implement condition based maintenance (CbM) technique
- **MONICALC** (KAVA Project-KIC Raw Materials): Integrated system for Monitoring and Control of Product quality and flexible energy delivery in Calcination (Minerals and Raw Materials Industry) > in progress
- **STOICISM** (FP7-NMP-2012): Sustainable Technologies for Calcined Industrial Minerals in Europe

Partners **needed!**



Failure Prediction OK!



Now build a **High-skilled Consortium** for a new **Prediction Challenge** based on **Digital Twin**

...

... **Real-time Prediction** for **3D Printing!**



3D Printing issues:

- **Not enough REX** on exploited machines
- **No existing Predictive Maintenance Solution**
- **Often 1 or 2 machines per factory > Bottleneck for production**
- **Important loss of time and money** if the long time manufacturing process is not achieved because a drift or a failure

Contact details

Contact person	Florent BARBIER
Organisation	PREDICT
Adress	19 avenue de la foret de Haye
Phone nr	+33 372 39 06 22
E-mail	Florent.barbier@predict.fr