



SPIRE and Catalysing the Circular Economy BROKERAGE EVENT

3-4 October 2017

***STREAMER – modeling & integration,
toward up and down-STREAM improving
Energy and Raw materials efficiency
(SPIRE-03-2018)***

IZNAB SPOLKA Z OGRANICZONA ODPOWIEDZIALNOSCIA

Dr. Emil LEZAK

emil.lezak@iznab.pl

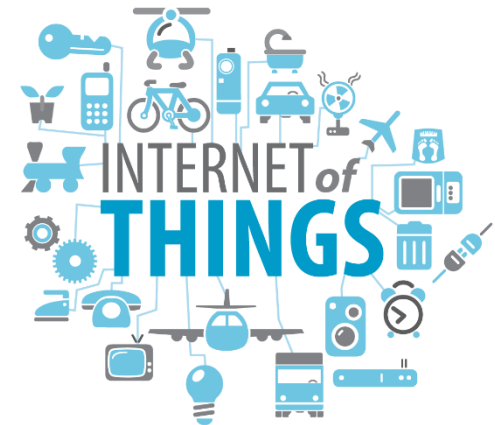
IZNAB SPOLKA Z OGRANICZONA ODPOWIEDZIALNOSCIA (IZNAB)

IZNAB is a dynamic SME specialized in advanced analysis of structures and/or materials performance, as well as processes optimization.

IZNAB is capable of providing a specialized service in this field involve precise identification of our customers' needs: from the selection (and supply) of promising raw materials & innovative techniques/processing technologies, optimized design & integration, up to the application and complete execution of solutions.

IZNAB has expertise and experience on *Life-Cycle Assessment* (LCA/LCCA), a technique to assess the environmental and economical aspects and potential impacts associated with a product, process or service

Moreover, **IZNAB** has an extensive expertise in *Industry IoT* and *Industry 4.0* solutions, on areas like Product Development, Process Development, Production Management, Integrated Plant Management, and Manufacturing System where advanced technologies are applied.

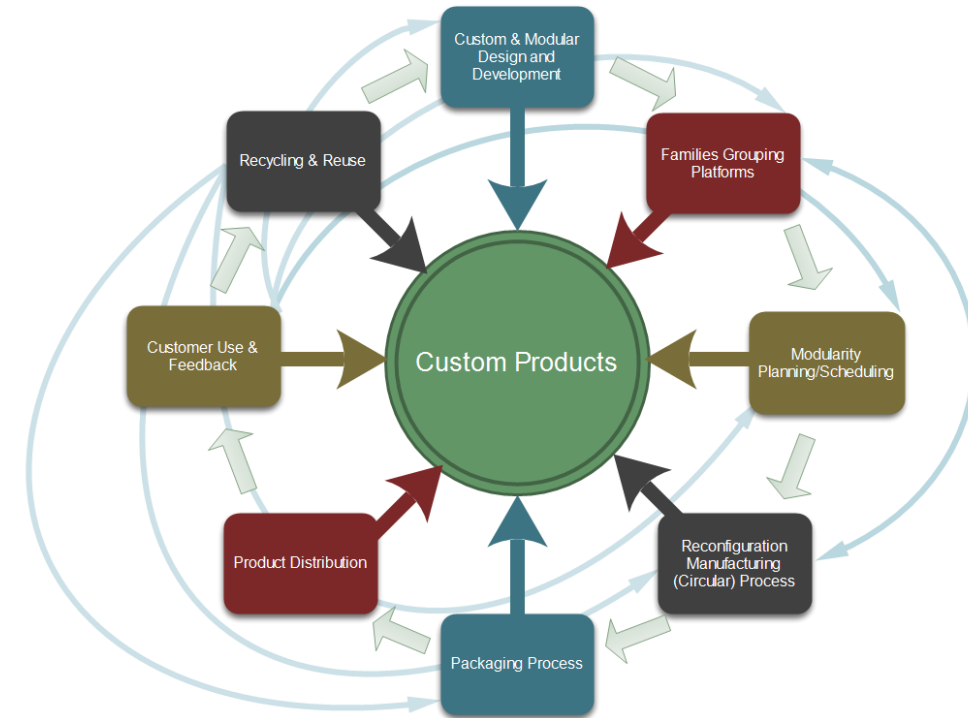


STREAMER Project Idea

STREAMER idea is to relationships and liaisons between the *product components and modules, methods for grouping and classification* for up- and down-stream adaptable and *re-configurable planning processes all the way to energy intensive industries and plant design and control* are needed to avoid duplicating the efforts at all levels when *new variant* are introduced. It is combining the following concepts:

Efficiency Framework aims to allow an innovative and practical integration of eco-efficiency analysis, including Life Cycle Assessment (LCA) and Life Cycle Cost Assessment (LCC), with process overall efficiency assessment (including both Resource Efficiency and Operational Efficiency and Flow Efficiency) analysis from the perspective of Lean Manufacturing, thus implicitly evaluating “value added” and non-value added” (waste) actions and resource usage.

Lean DfX framework, consists on a method and tool developed to address the need to provide more practical and systematic integration of Product Design Assessment of different Design “X” Domains (Design for Manufacturing, Sustainability, etc.), what is typical known as Design-for-X or Design-for-eXcellence. It has four main pillars, modular product based decomposition, Multi-Dimension Design integration via dimensionless ratios both for effectiveness and efficiency with Lean Principles basis, visual management attributes, and hierarchical integration of results either for product modules assessment and each domain individual analysis.



STREAMER Expected Impact

Impact 1: Costs reduction of the process of at least 10% through the implementation of a flexible scheme in raw materials, including secondary raw materials, process and product quality specifications.

Impact 2: Improved process efficiency through re-utilisation of energy and/or material process streams by at least 15%.

Impact 3: CO2 emissions reduction by at least 5% and reduction of the environmental impact in terms of the main key performance indicators by at least 15%.

Impact 4: Effective dissemination of major innovation outcomes to the current and next generation of employees, through the development, by education/training experts, of learning resources with flexible usability.



STREAMER Consortium

Partner list				
No	Partner Name	Type	Country	Role in STREAMER
1	IZNAB Sp. z o.o.	SME	PL	Coordination; Dissemination + Awareness
2	Ernst & Young		ES	Exploitation & Smart specification
3	ISQ	RTD	PT	Process Modeling
4	INEGI	RTD	PT	Synergistic process integration
5	EURECAT	RTD	ES	Novel process utilizing
6	FhG-IPT	RTD	GER	Production techniques
7	XXXXXX	SME	EU	Energy-efficient processing streams
8	XXXXXX	SME	EU	Value-chain Management
9	XXXXXX	Large	EU	End-User + Implementation & Validation
10	XXXXXX	Large	EU	End-User + Implementation & Validation

CONTACT DETAILS



IZNAB Sp. z o.o.
“Innovation Oriented To Business”

Emil LEZAK (IZNAB; Coordinator) emil.lezak@iznab.pl

Mario CARABANO (Ernst & Young; Administrative Coordinator)
Mario.CarabanoMari@es.ey.com