



MSEE
Manufacturing Service Ecosystem

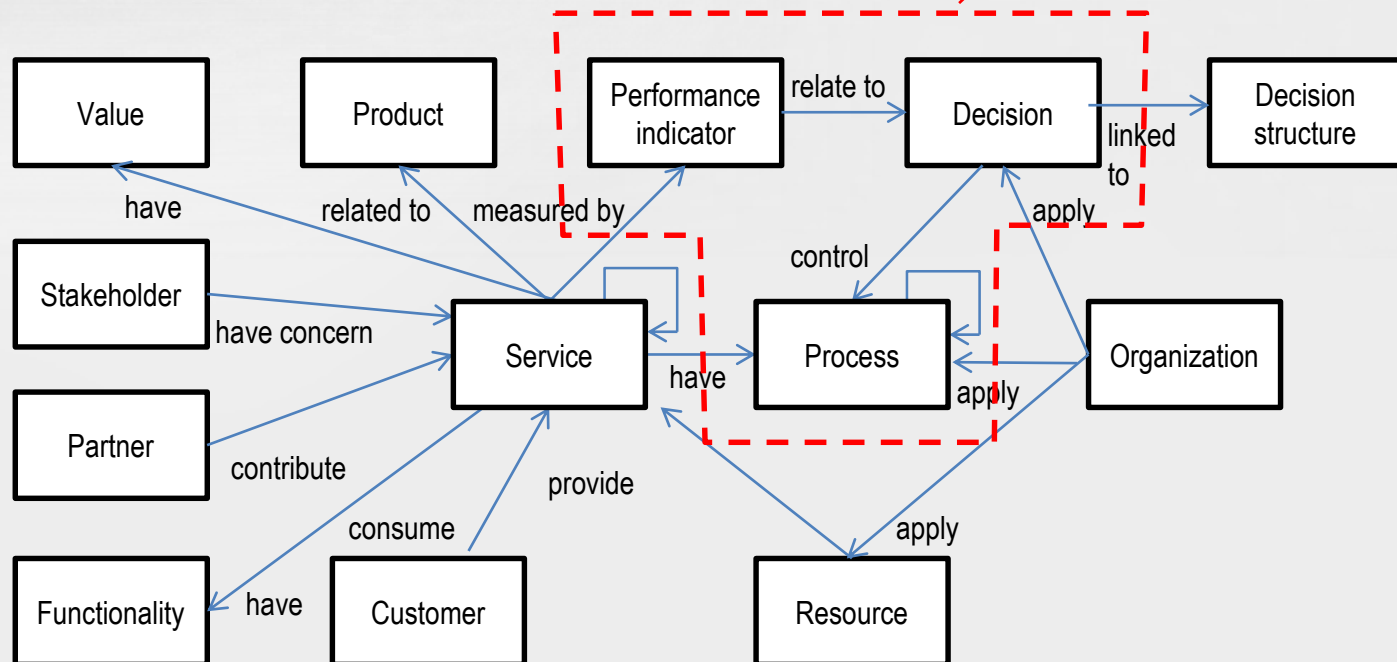
Validation of Service Modelling Language

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Service Modelling Language

Modelling Constructs at BSM level

Supported by graphical editor
of SLMToolBox



Validation of SLM in the three use cases

- Bivolino: Online Customized configuration for designing of shirts (i.e. customers design their products themselves)
- Indesit: Carefree Washing Machine with personalized services (i.e. personalized best practices, machine monitoring, tailored commercial offers)
- TP Vision (previous Philips): Development of smart TV and its associated online services (New service development process)

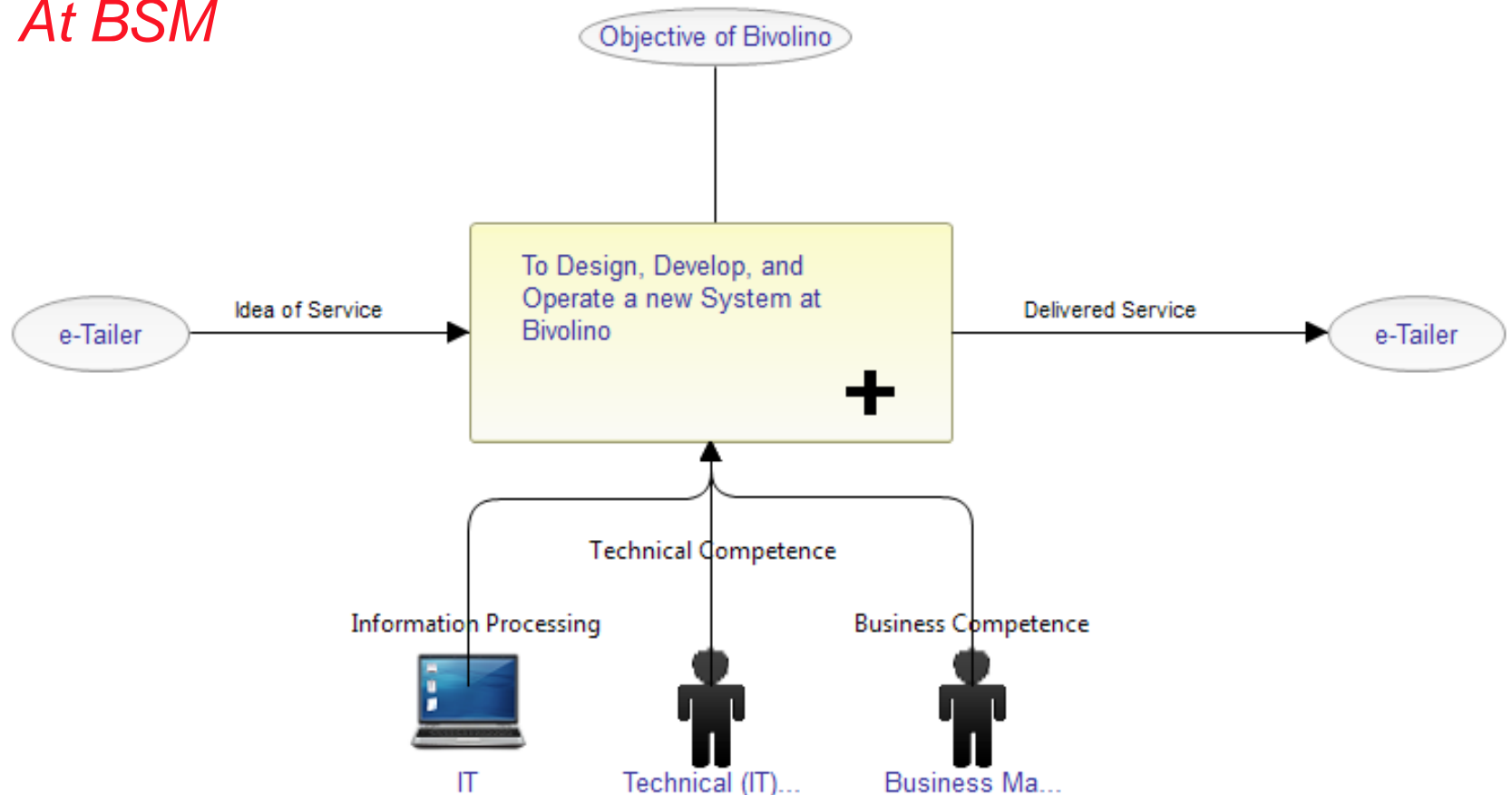
M2 - Service Modelling Model (BIVOLINO)

BIVOLINO decision-making structure (AS-IS)

	Informations Externes IE	Final customer decisions F	e-tailer decisions F	To manage service product design Log	To manage service system design F	To manage service system development F	to manage service system exploitation F	Informations Internes II
H = 5 ans P = 6 mois Strategic	Evolution of the market	contracts for service demand	Business plan for the service proposition to final customer	Partners selection and Technologies for the future services	To select the requirements for the service system	To propose long term implementation plan and related technologies	Master service production Schedule	Current strategy of the company and related results
H = 1 an P = 2 mois Tactical	Existing services at the competitors	final customer expectations	Annual activity and production Planning of services	Global planning for the design of new product service	to plan service system design activities	To plan service system implementation	Capacity planning including human and technical resource allocation	Difficulties to implement previous product services
H = 2 mois P = 1 semaine Operational		final customer order	Modifications for new services	weekly meeting to manage the advancement of product service design	to manage short term activities of design	To manage short term implementation plan	Scheduling of service delivery	Advancement of service product design
	IE	F	F	Log	F	F	F	II

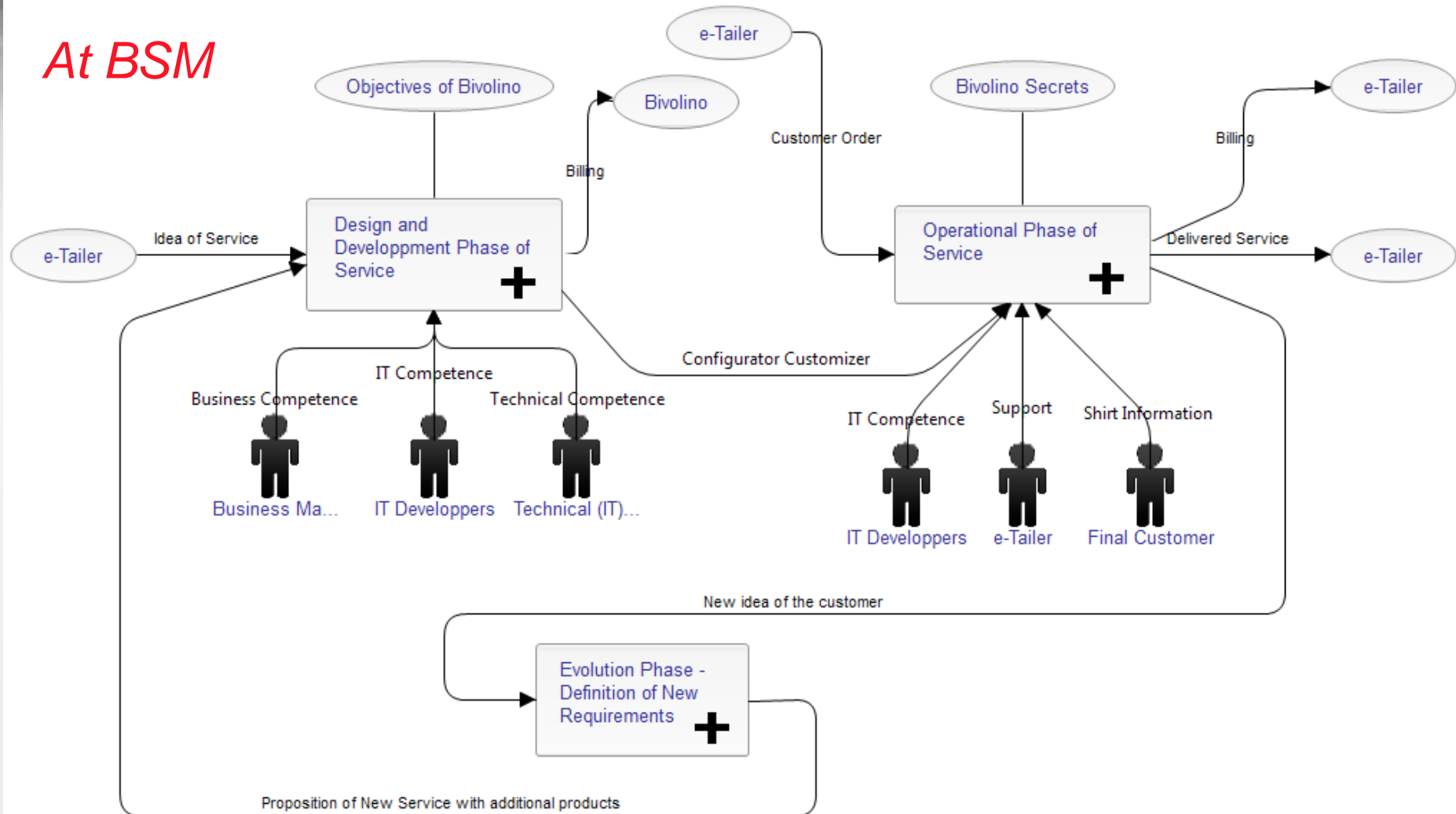
M2 - Service Modelling Model (BIVOLINO)

At BSM



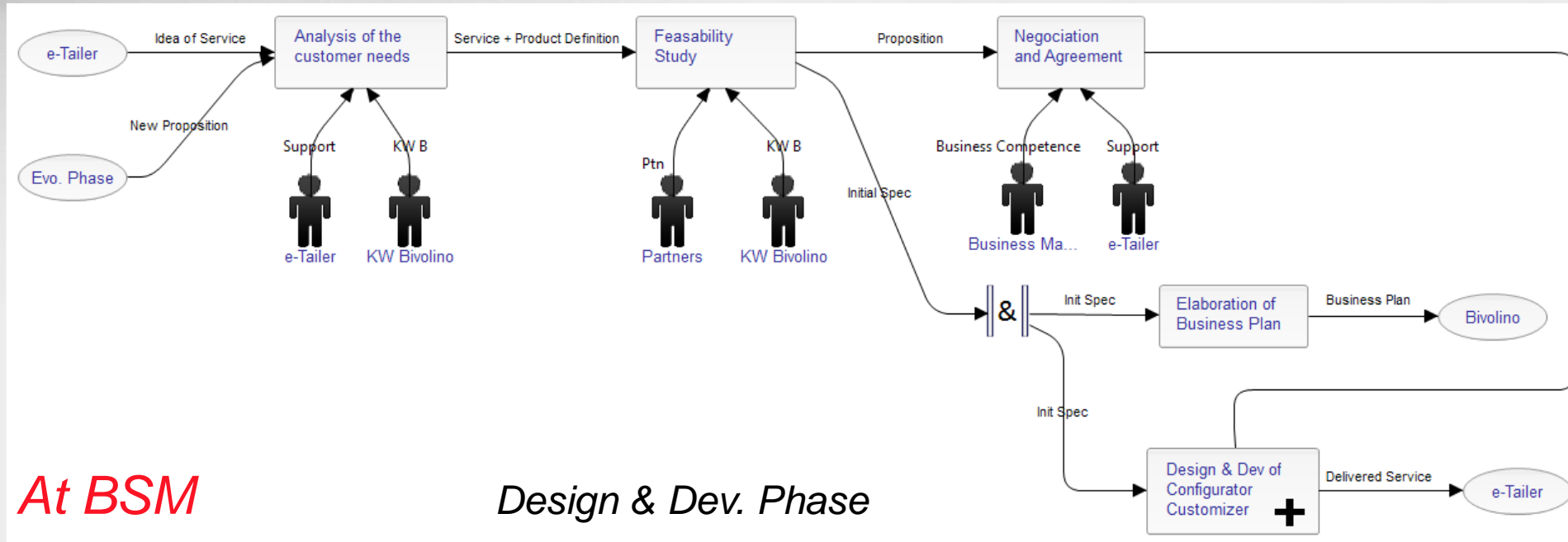
M2 - Service Modelling Model (BIVOLINO)

At BSM

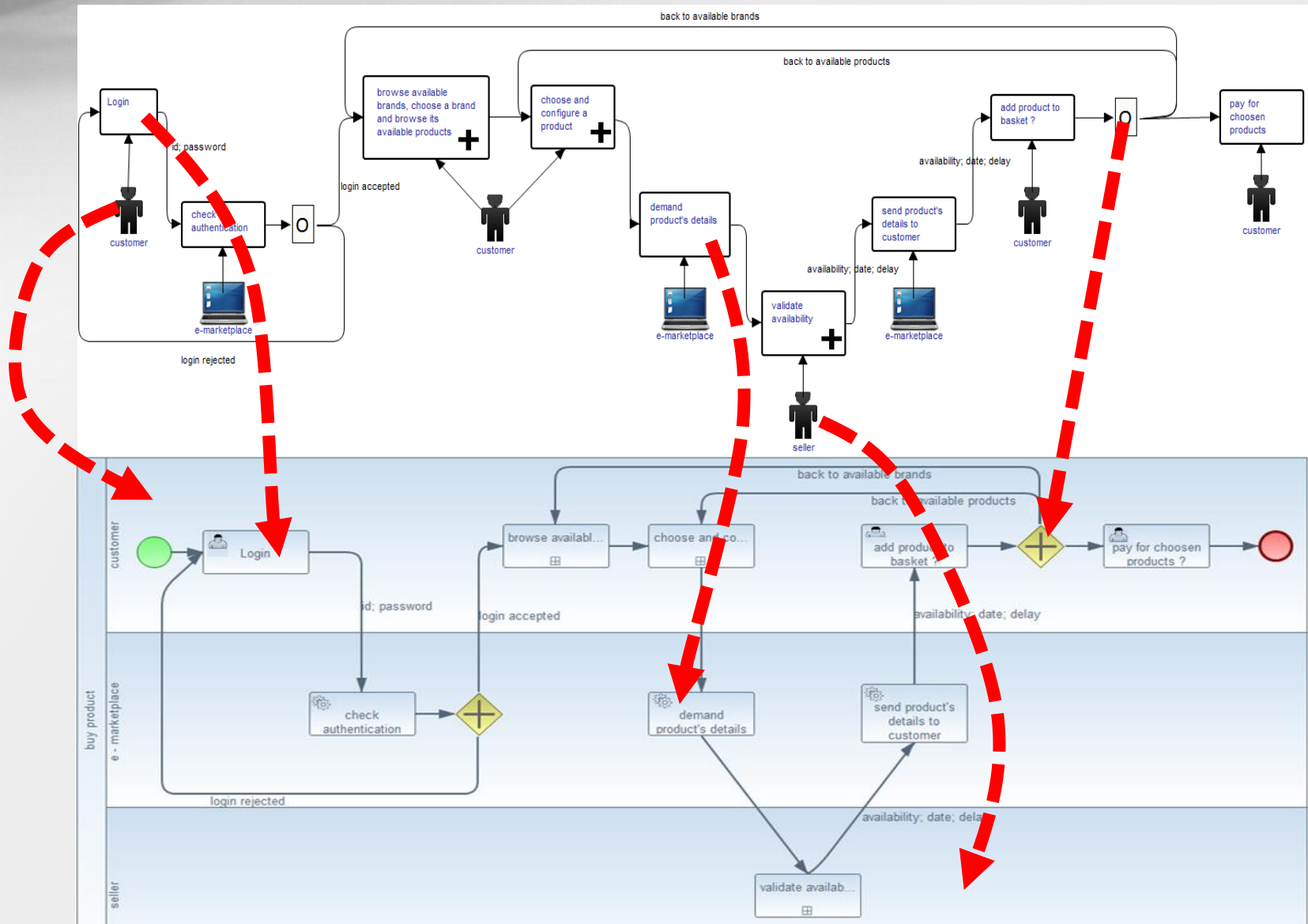


To design Develop and Operate

M2 - Service Modelling Model (BIVOLINO)



M3 – Model transformation (done with SLM TOOLBOX)(BIVOLINO)



EA* model for
BIVOLINO at BSM

BPMN 2.0 model for
BIVOLINO at TIM

M2 - Service Modelling Model (INDESIT)

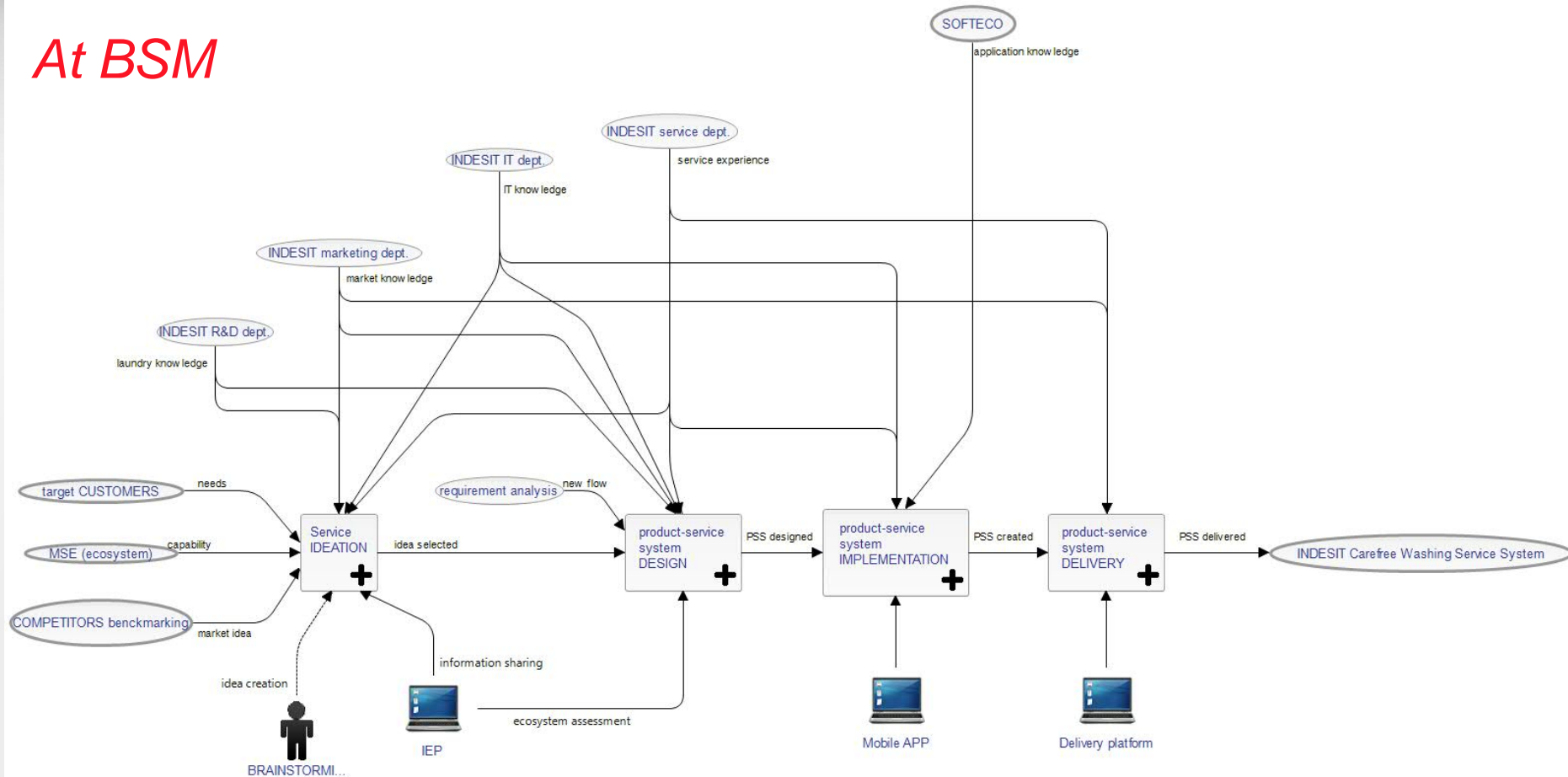
Indesit Use case : CareFree WM Service Deision model

	External Information EI	CUSTOMER decisions <F>	SERVICE IDEATION <F>	service-product DESIGN <F>	service-product IMPLEME... <F>	service-product PLANNING <F>	service-product DELIVERY <F>	Internal Information II
H: 2 Year P: 6 Month	Existing services on WM; Company image	Customer expectation in terms of services	BUSINESS PLAN for service proposition	Selection of design methodologies and partners	Selection of targeted WM and technologies	Annual service planning	Partner relationship organization	Business strategy; WM master planning
H: 1 Year P: 1 Month	Existing HW and SW implementation technologies	feedback on customer satisfaction on the	Assessment of existing services	Definition of PSS functions and design specifications	Action plan to modify WM production process	Planning of the specific service actions	General planning of service delivery	Available in-house technologies
H: 1 Month P: 1 Week	Advertising	Customers orders; Customers claims	BRAINSTORMING meeting; Validation of service orders	Detailed design planning	Implementation of modifications	Service scheduling; feedback measurement	Short term delivery planning	Status of production and service system
	EI	<F>	<F>	<F>	<F>	<F>	<F>	II

M2 - Service Modelling Model (INDESIT)

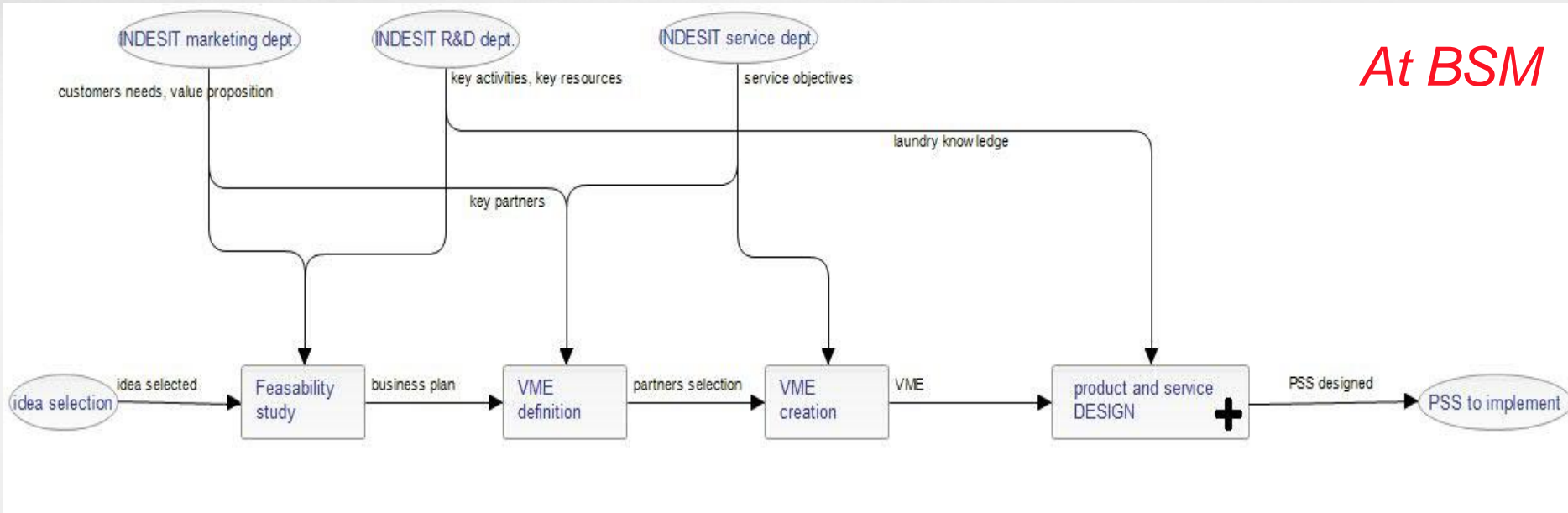
Indesit Service modelling (global view)

At BSM



M2 - Service Modelling Model (INDESIT)

At BSM

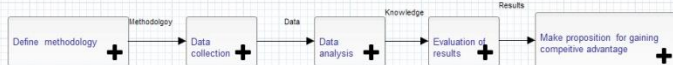
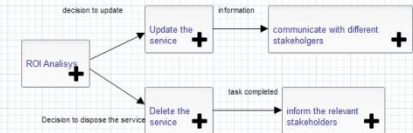
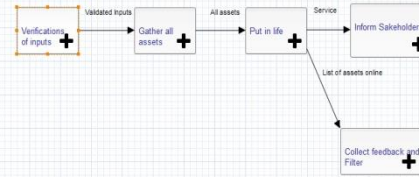
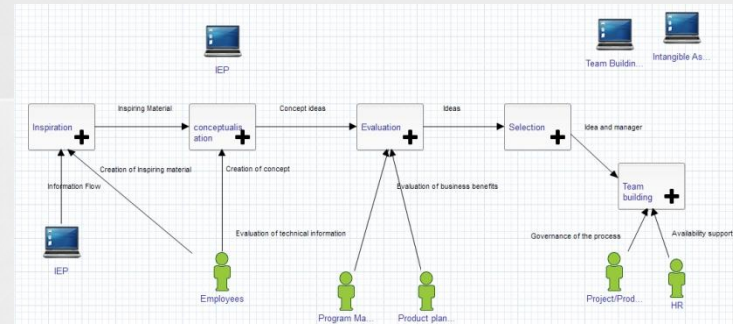
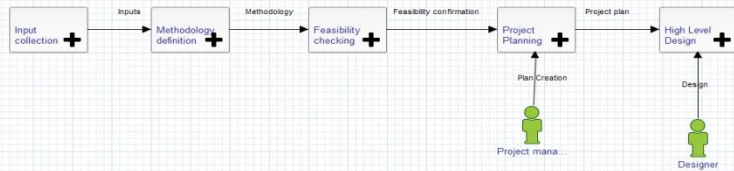


Product-service system Design phase

TP Vision Use case: Ambilight Service Governance

	External info	F1	F2	F3	F4	F5	F6	F7	Internal info
MDSEA	External Information	Service Ideation	Business Decision (Feasibility)	Design of Service System Architecture & Service Development	Service Validation	Service delivery	Market Evaluation / Monitoring	Service Updating/ Disposal <i>LOOP (go back to F1)</i>	Internal Information
STRATEGIC H = 3 years P = 6 months	Big technology trends	-Definition of Objectives of the service: 1) Enthuse retailers 2) Enthuse installation base 3) Boost Ambilight proposition -More general objective: Making money out of Ambilight service	Create a solution able to meet: - short Time to market, - lower cost, - well adapted to the scope (idea itself) of the service. (Looking for the solution, Make the best decision)	- Strategy to define the service system architecture (for example which kind of techniques, what can be reusable, which type of platform support, ...); - Strategy for possible extra partners; - Strategy to choose the tools to develop the service. - Strategy to define the Business requirements	- Define the strategy to manage the quality; - Higher NPS; - Lower cost of services (after sales);	Minimize the after service costs.	Gain competitive advantage.	Minimize cost of service maintenance based on ROI.	Ecosystem relationships
TACTICAL H = 2years P = 6 months	R&D projects, Competition; Trade shows; Partner information; User needs; Consultation.	To create the best working group to perform the work.	<i>For time and cost and scope:</i> - To define a methodology well adapted to the feasibility study and allowing to calculate the cost of the procurement.	- Definition of new service; - Choice of the platform support; - Choice of the extra partner; -Take a decision about design tools (make or buy); - Define the criteria to setting up the tool. - Ensure availability of communication matrix.	- Ensure that the test tooling is in place; - PR tracking; - Reporting; - Test cases linked to specifications; - Ensure acceptance criteria are available.	- Definition of the procedures and alignments (team, people, places); - Ensure the proper tooling is in place; - Communication matrix is available.	- Define the frequency; - Define the way to collect the information; - Define the way to process information; - Set up the marketing Inelegance team; - Definition of good data.	- Procedure to implement the maintenance; - Communication.	Technological Competencies

TP Vision Use case: Ambilight Service design



Conclusions from the Pilots

- Modelling on higher level stages gives insight in business process (BIVOLINO)
- Modelling up-to-the code level helps to get thing 'on stage' quicker (BIVOLINO)
- Modelling is very useful to have a complete and integrated overview of the system (INDESIT)
- Modelling helps also in the communication of the business aspects to the IT developers (INDESIT)
- Modelling help to define performance indicators and link to objectives (TP Vision)
- Modelling improve cross-department communication and understanding (TP Vision)