

REFURBISHING AND REMANUFACTURING IN THE BASQUE COUNTRY: FROM HOME APPLIANCES TO INDUSTRY

T-REX - 15th september 2016

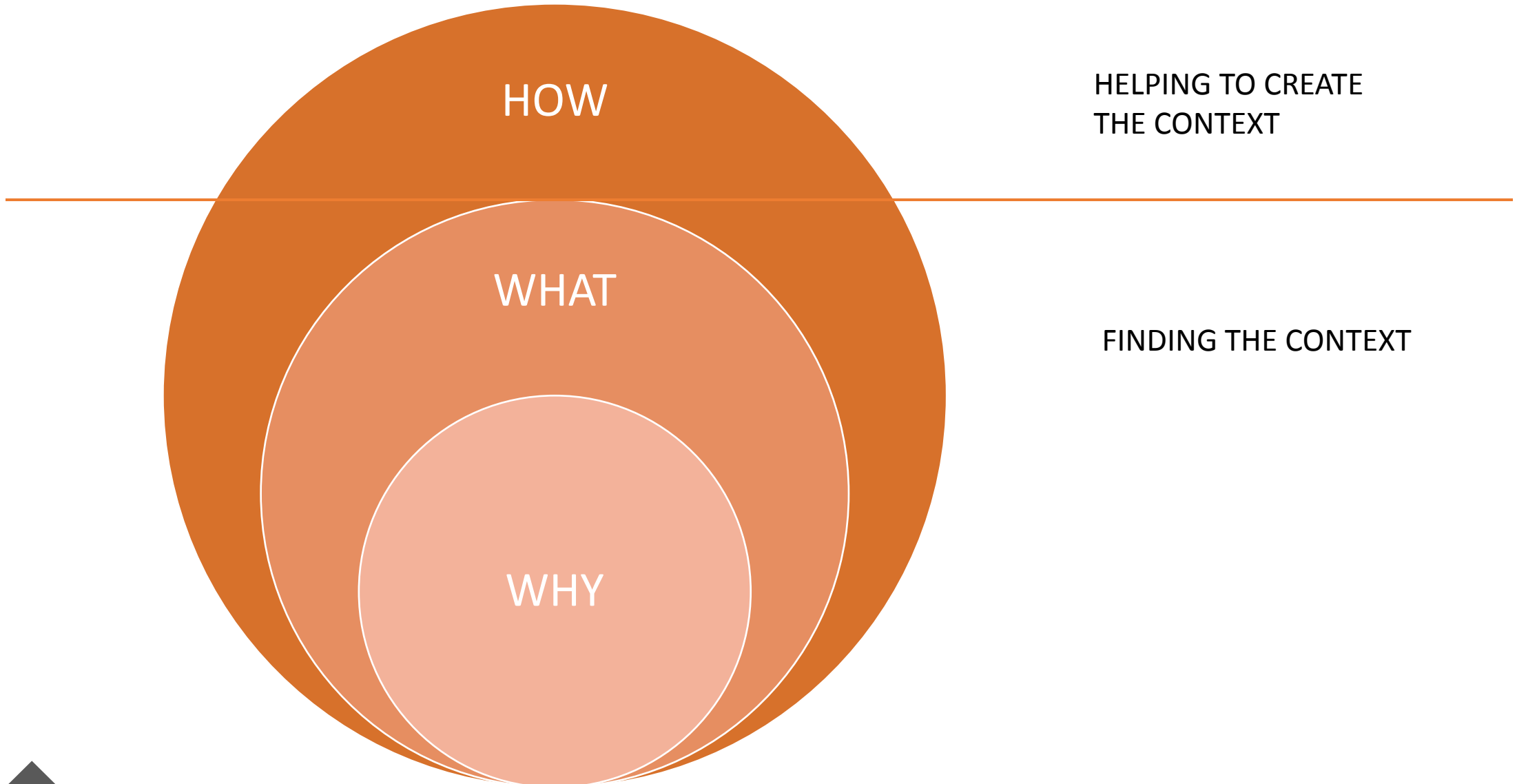


ACEDE – Cluster del Hogar
H-Enea Living Lab

FOREGROUND– The REMAN Theory and background

- An old planet: a new way to understand living in it
- Circular Economy (CE) as a solution or as a way to last
- Remanufacturing as the CE expression to mitigate industrial effect
- Remanufacturing has already a long tradition, specially in 'heavy industries

FOREGROUND– The challenge: creating a new
'emerging REMAN' reality



FOREGROUND– The challenge: creating a new
‘emerging REMAN’ reality

Finding the context:

- **WHY:** Remembering where the concern comes from (ecosystem) we should NOT forget the main **THREE** aspects of the challenge and the solution:
 - ECONOMIC
 - ENVIRONMENTAL
 - SOCIAL
- **WHAT:** Available resources and conditions for a new market: need, demand, knowledge (market and industry), capacities

Helping to create the context

- **HOW:** Communicating, finding and dinamising key and committed stakeholders to collaborate

WHY

FOREGROUND– The challenge

Is a reman product more sustainable than a new one?

RESOURCE USE

ENERGY EFFICIENCY

FULL LIFE CYCLE

**New
vs.
REMAN**

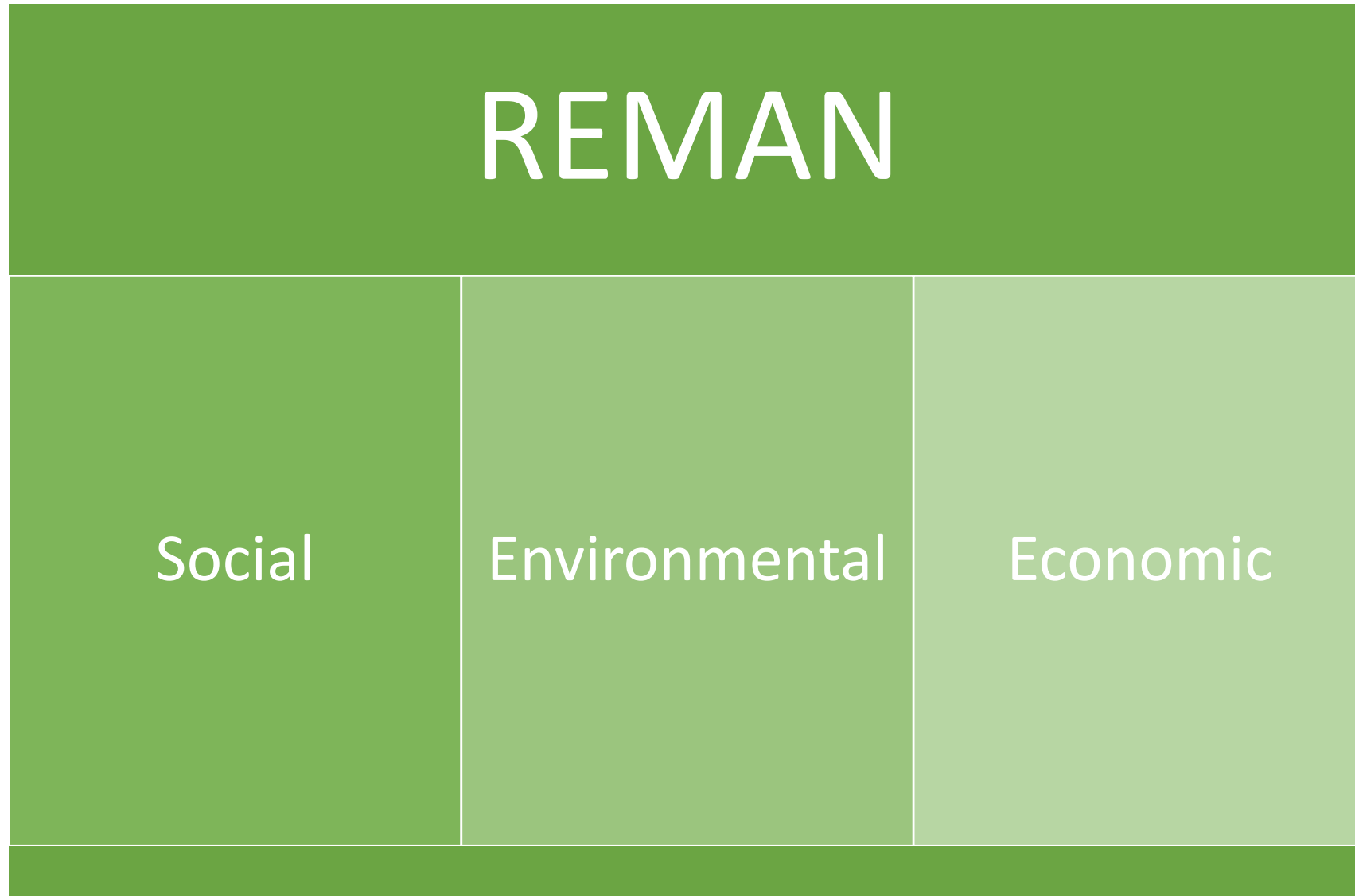


Could other than economic reasons generate an innovative 'REMAN' market??

WHY

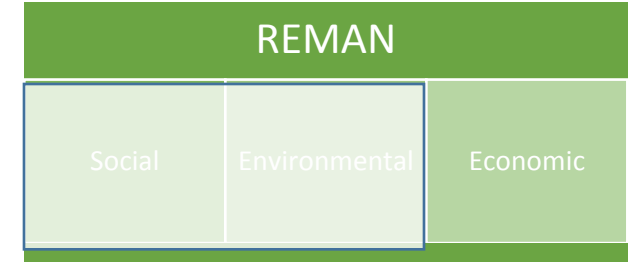
DEVELOPMENT – Breaking down the challenge

Breaking down the challenge in its three main components: the REMAN tripod



WHY

DEVELOPMENT– The Economic Factor

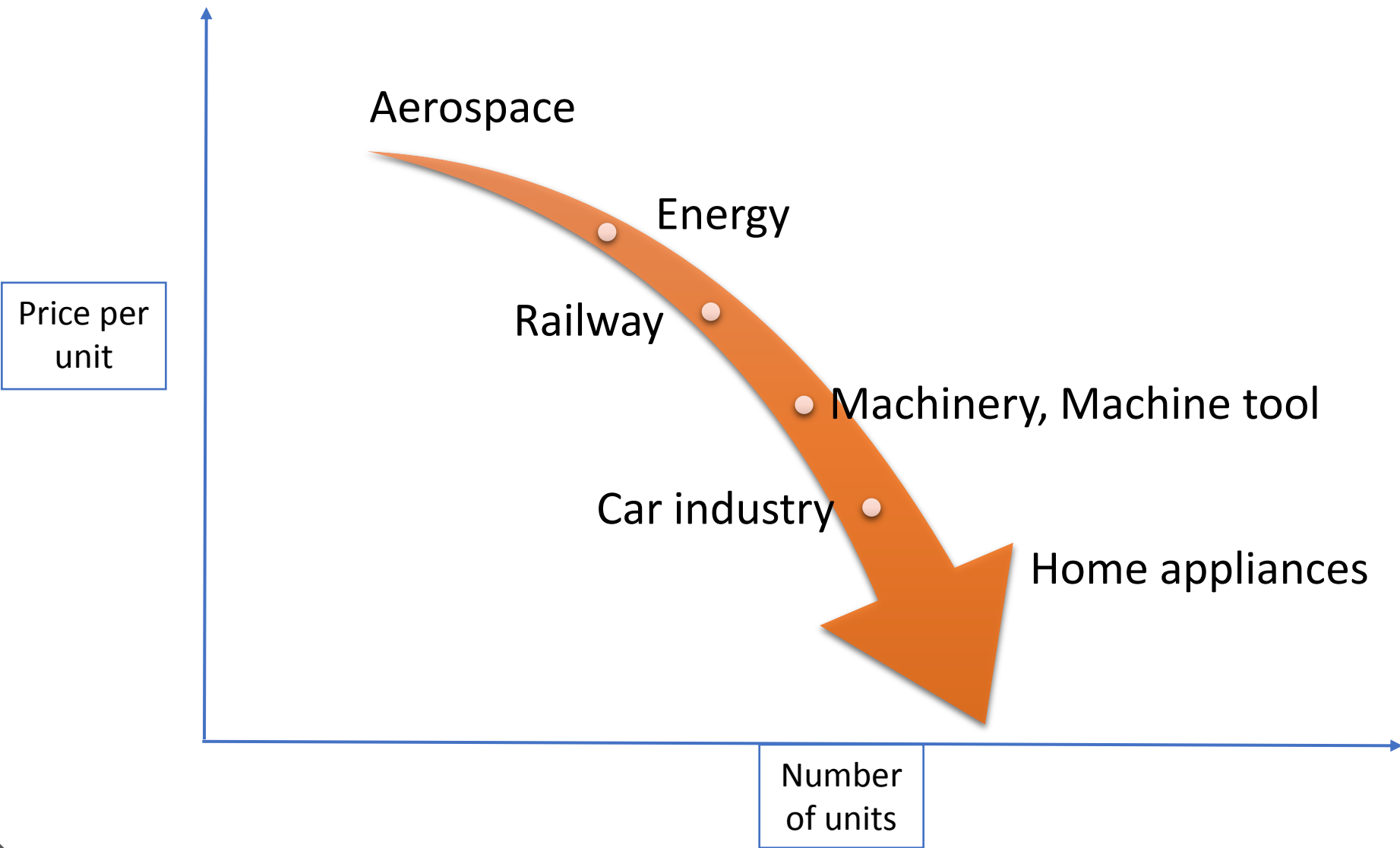
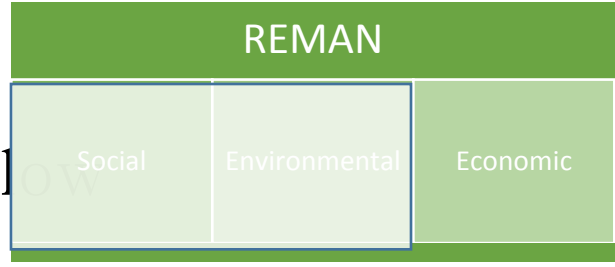


- The remanufacturing industry worldwide has been showing some clear patterns and lesson learned.
- As Remanufacturing comes from Industry culture, it has followed the traditional value chain innovation flow...
- Driven by VALUE

WHY

DEVELOPMENT- The Economic Factor

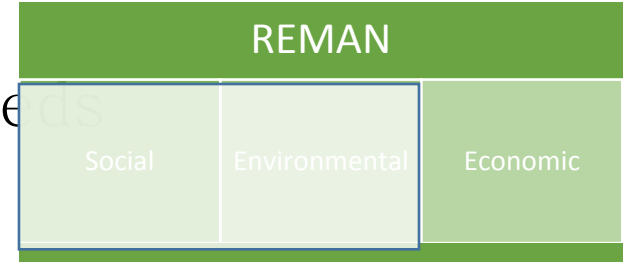
The traditional industrial innovation flow



Theoretical REMAN potential

WHY

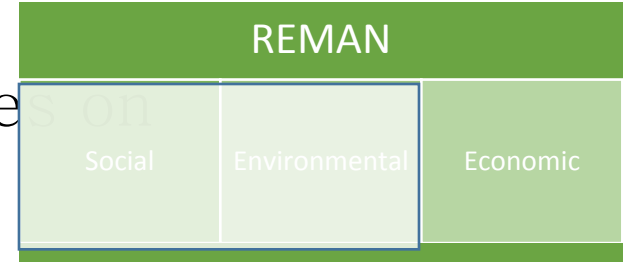
DEVELOPMENT– The Economic Factor: basic need to create a REMAN market



- Basic conditions for REMAN Home Appliances:
 - Market existence
 - Access to cores
 - Manufacturing and servicing knowledge
 - Market potential:
 - ability to provide Quality refurbished products (with warranty)
 - ability to supply them at an affordable Price
 - Use cost viable (energy costs)
 - Innovation potential to adapt to a very agresive market: Jugaad innovation vs traditional innovation funnel

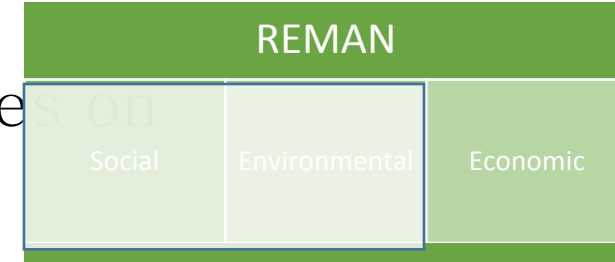
WHAT

DEVELOPMENT– The Economic Factor: what goes on in BC That could make HA REMAN economic?



- Every industry has been learning from their markets for long years: **knowledge (Q and €/unit)** and **adaptation** to each market (**i**)

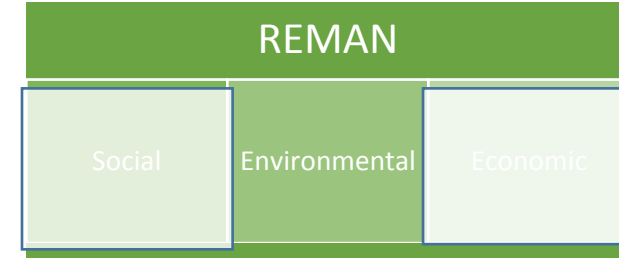
DEVELOPMENT– The Economic Factor: what goes on in BC that could make HA REMAN economic?



- Home Appliances (HA) industry has done and is doing so, in the Basque Country for more than 50 years:
 - several global niche market leaders supplying and collaborating with top worldwide brands: technological and manufacturing knowledge (**Q, i and €/u**)
 - Understanding the home appliance AND the user expectation priorities **product, service and market knowledge**
- **Knowledge to provide cost competitive solutions in product, service to a global and market (very low profit margin, mass production)**
- **Still components, system, products and services created in Basque Country are competitive worldwide**
- This knowledge is today into several **ACEDE** cluster associated companies.

WHY

DEVELOPMENT- Product Life Cycle Economics



A class products started to be frequent sellers since 2011, today's remanable products

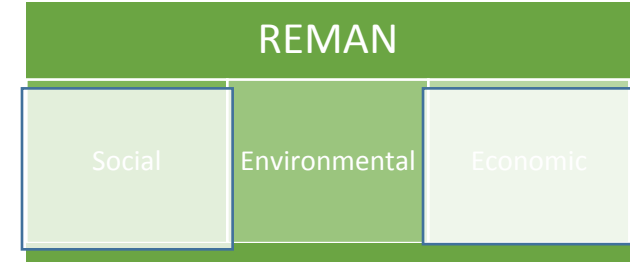
Clase	Desviación sobre el consumo medio	Consumo de energía anual [kWh]	Coste económico de la energía 15 años ¹ [€]	Coste de adquisición [€]	Ahorro al sustituir por un A++ [€]
A++	< 30%	170	306	693	
A+	< 42%	241	434	660	95
A	< 55%	325	585	453	39
B	55 – 75%	436	784	430	215
C	75 – 90%	533	960	409	369
D	90 – 100%	637	1.147	388	536
E	100 – 110%	704	1.267	369	637
F	110 – 125%	788	1.418	351	770
G	>125%	838	1.508	333	842

(1) Suponiendo un coste de la energía de 0,12€/kWh

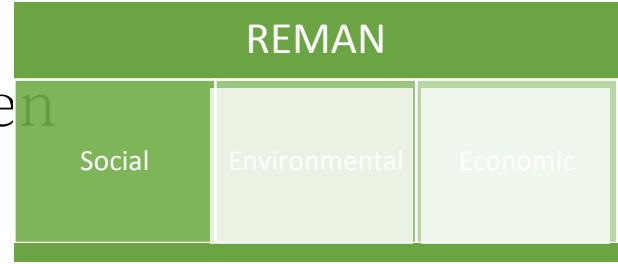
Clase	Coste de adquisición (€)	Ahorro al sustituir por un A++ (€)	Recuperación de la inversión (Años)
A++	693	-	-
A+	660	95	6,95
A	453	39	11,62
B	430	215	2,00
C	409	369	1,11
D	388	536	0,72
E	369	637	0,58
F	351	770	0,46
G	333	842	0,40

Tabla 2. Coste asociado y consumo energético de un frigorífico según la clase energética. Fuente: INEGA.

Much lower purchasing Price makes ROI new A++/ROI reman A > 20 yrs



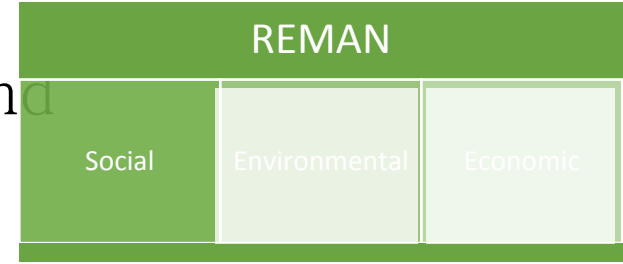
- New climate change concern → New Directives → New state laws
- In Spain concerning WEEE → RD 110/2015
- This RD is in force since beginning of 2016 and requires the efforts to enlarge the life of 4% of commercialised EEE products
- To do so, Centre for Preparation of Reusage (CPR) are proposed
- It also is a law against the obsolescence of home appliances: some manufacturers are considering today to design their NEW products to last longer and think in other business models closer to servitisation



- Important consumption habits modified during last 7 years of crisis (HA market continuously decaying since 2007 until 2013).
- From Gauss Bell shape consumption to M shape type
- Old needs recovered for new emerging situation: 25% unemployment rate, finance scarcity...
- But still there is a need to have Access to functions to ease life
- Emerging market for functions to ease chores at affordable prices... with warranty (educated customers: exigent)
- Similar model running and evolving in France since 2008: today offering 3 years of warranty(!)

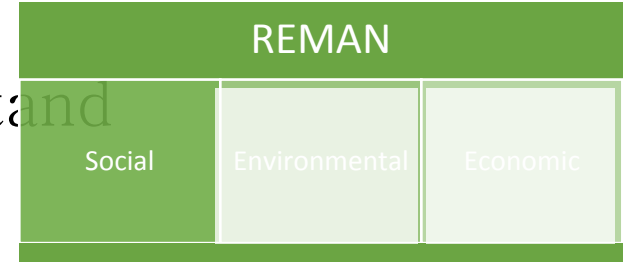
WHY

DEVELOPMENT– The Social Factor: employment and new economy creation)



- The RD points at Social Oriented Agencies as the ones to lead the CPR
- Apart from knowledge jobs, assembly, cleaning and other type of Jobs for people in exclusion risk are proposed
- These jobs are designed to give training, learning and bring back dignity and self assurance to long term unemployed people.
- Also it closes the selling and the consumption circle ('local market')

DEVELOPMENT– The Social Factor: employment and economy creation)



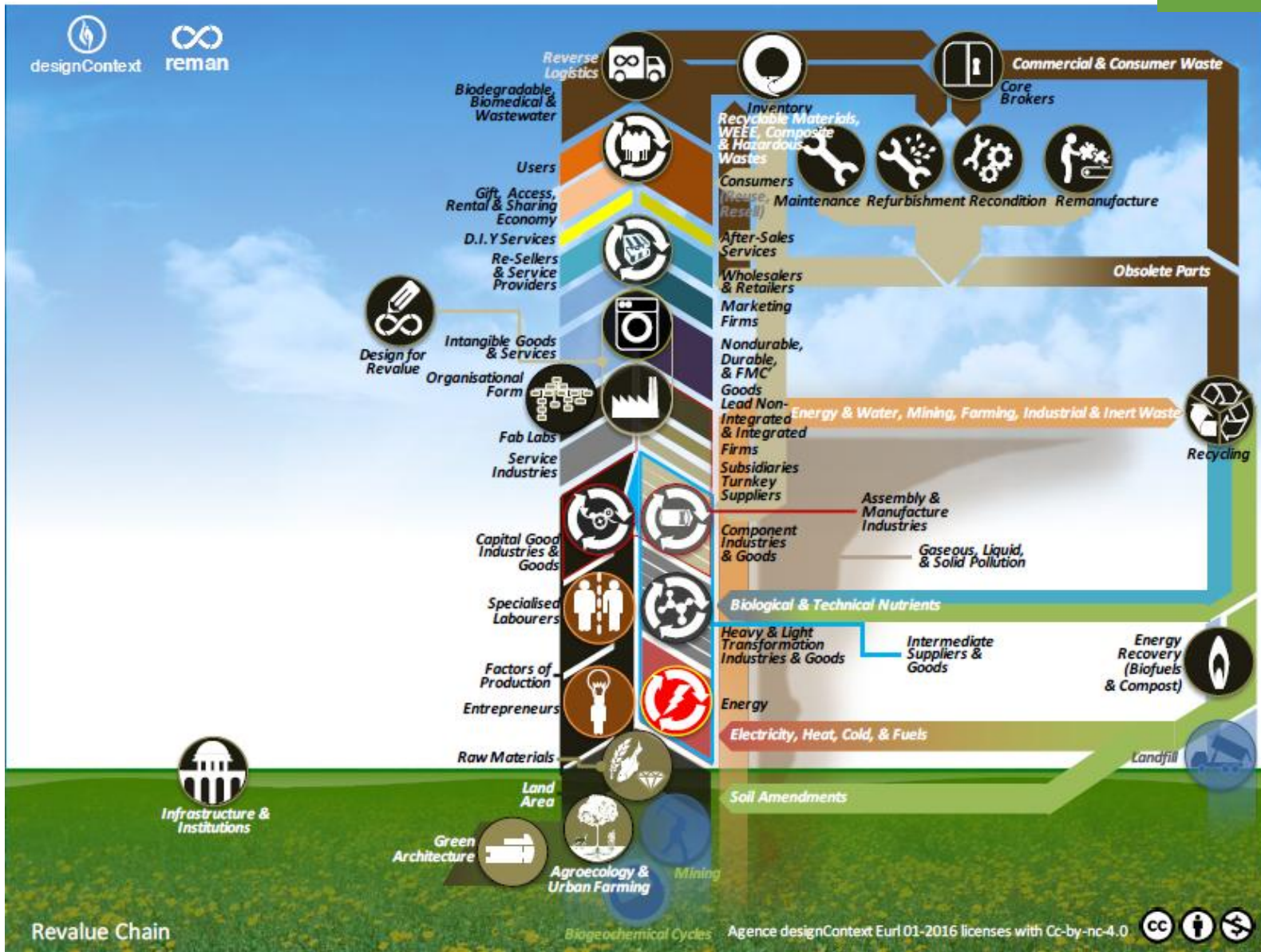
- Fundación EMAUS GIPUZKOA proactive to collaborate with industry for new social job creation in Basque Country
- Fundacion EMAUS today has several used Home Appliance selling points: re-used and recycled market knowledge
- EMAUS approaches ACEDE to find real options for a new economic activity on Circular Economy principles in collaboration with a HA Industrial agent.

emaús
GIZARTE FUNDAZIOA
FUNDACIÓN SOCIAL

WHAT

DEVELOPMENT- REMAN knowledge and network

REMAN		
Social	Environmental	Economic



Understanding the FULL 'REMAN' CYCLE and the AGENTS



WHAT

DEVELOPMENT– REMAN knowledge and network

REMAN		
Social	Environmental	Economic

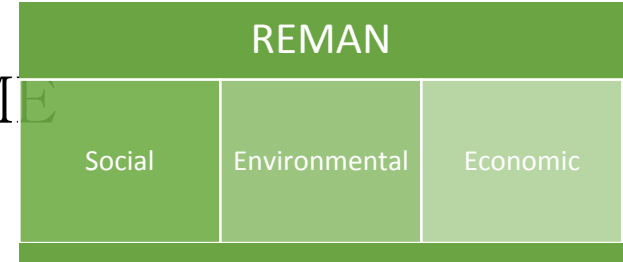
- Sareteknika S.Coop is a reborn new Company servicing home appliance in all Spain:
 - About 1000 technicians over the whole Spanish geography
 - Knowledge on home appliance repair and maintenance for more than 20 years
 - Training sector professionals in Spain and abroad
 - Servicing over 500.000 appliance per year



Sareteknika, as a Coop, has a will to cooperate with other social entities to have a social impact

- Sareteknika, as a business, needs to see that there is a profitability of the activity to last
- Sareteknika has the knowledge to set boundaries and thresholds of when a home appliance can be repaired, refurbished... or remanufactured.
- Sareteknika has the knowledge for REMAN assessment in core access

DEVELOPMENT– IS THERE A CONTEXT FOR HOME APPLIANCE ‘REMAN’ IN BASQUE COUNTRY?



CONCLUSION: THERE IS A CONTEXT OF RESOURCES AND CONDITIONS

- Market
- Knowledge and capacities
- Environmental sense
- Legislation
- Social need (value proposition and job generation)
- Agents and Companies with will to promote new REMAN activities

TO CREATE A NEW CPR PILOT ACTIVITY FOR HOME APPLIANCES IN THE BASQUE COUNTRY UNDER IMPORTANT SUSTAINABLE TERMS

HOW

DEVELOPMENT– creating a new ‘*emerging REMAN*’ reality with agents

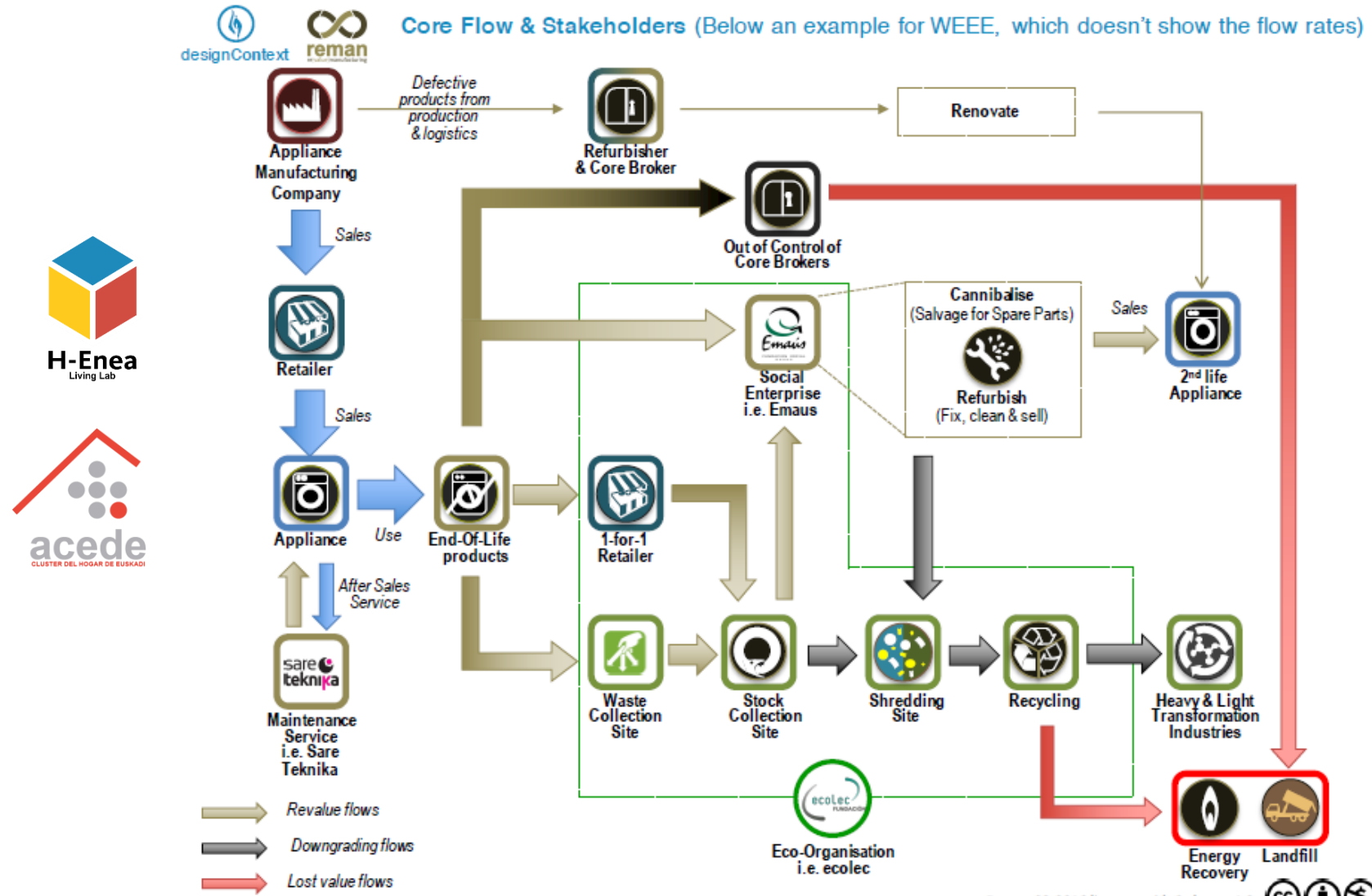
Helping to create the context

- HOW: Communicating, finding and dinamising key and committed stakeholders to collaborate
- HOW IS ABOUT WHO-s!!
- KEY ROLE OF A ‘NEUTRAL’ BUT INVOLVED FACILITATOR: IN COLLABORATION IS ABOUT DINAMISING AND FACILITATING – NOT MANAGING! – P2P
- LEAN AND JUGAAD APPROACH
- IMPORTANT TOO: THE DINAMISER TO UNDERSTAND THE KEY FACTORS OF THE INITIATIVE TO SIMPLIFY AND CONDUCT ACTIONS



HOW

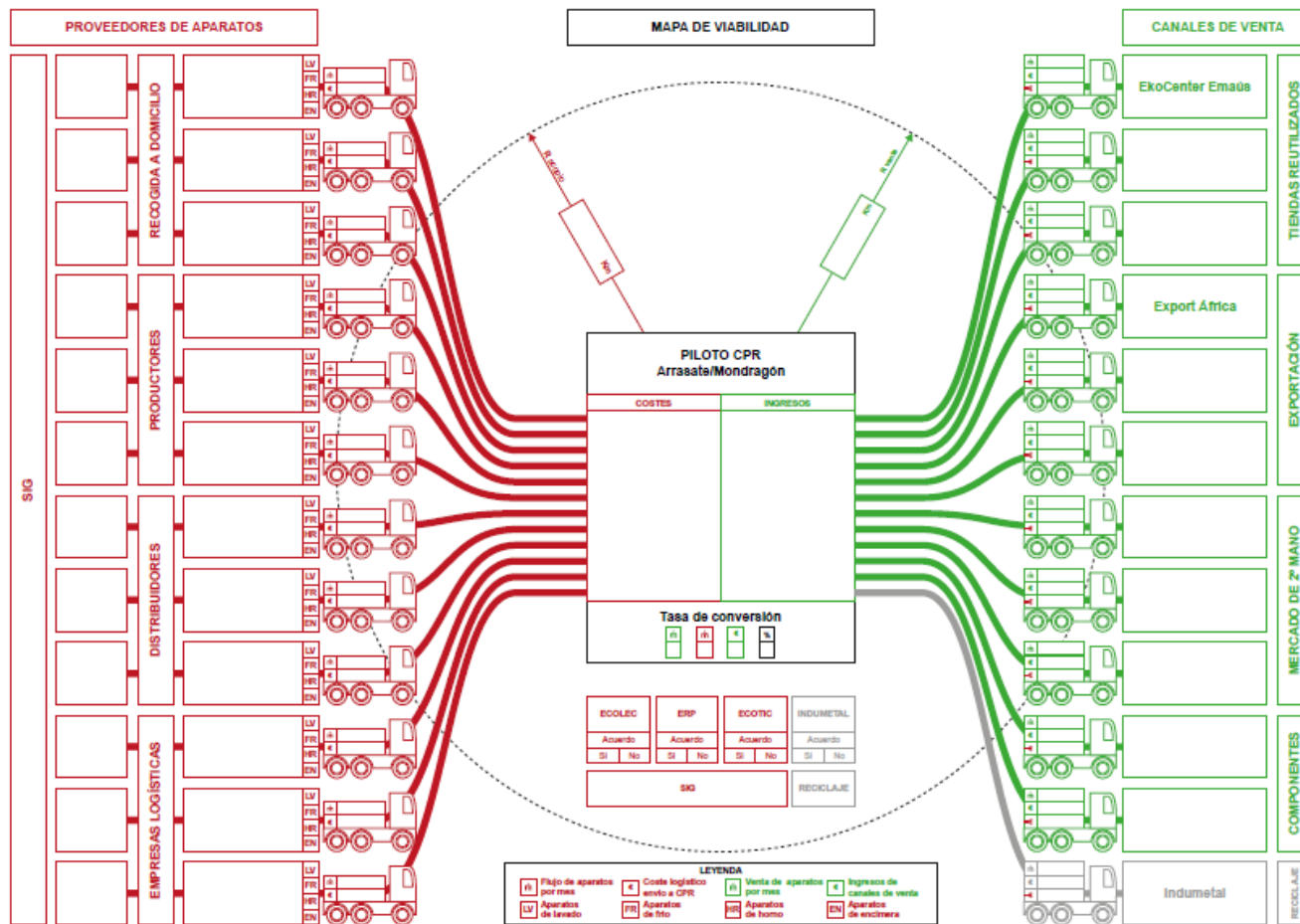
DEVELOPMENT – creating a new ‘emerging REMAN’ reality with agents



Collaborating and refining the ‘1st REMAN’ approach through 2 partner collaboration

HOW

DEVELOPMENT – creating a new ‘emerging REMAN’ reality with agents



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HOW

DEVELOPMENT – Setting the new ‘REMAN’ business conditions

- Market : quantities, qualities, services and selling prices
- Access to cores: quality and assessment
- Defining the activity: resources, alliances, steps
- Making the business case
- DECIDING TOGETHER!

OUTCOMES–

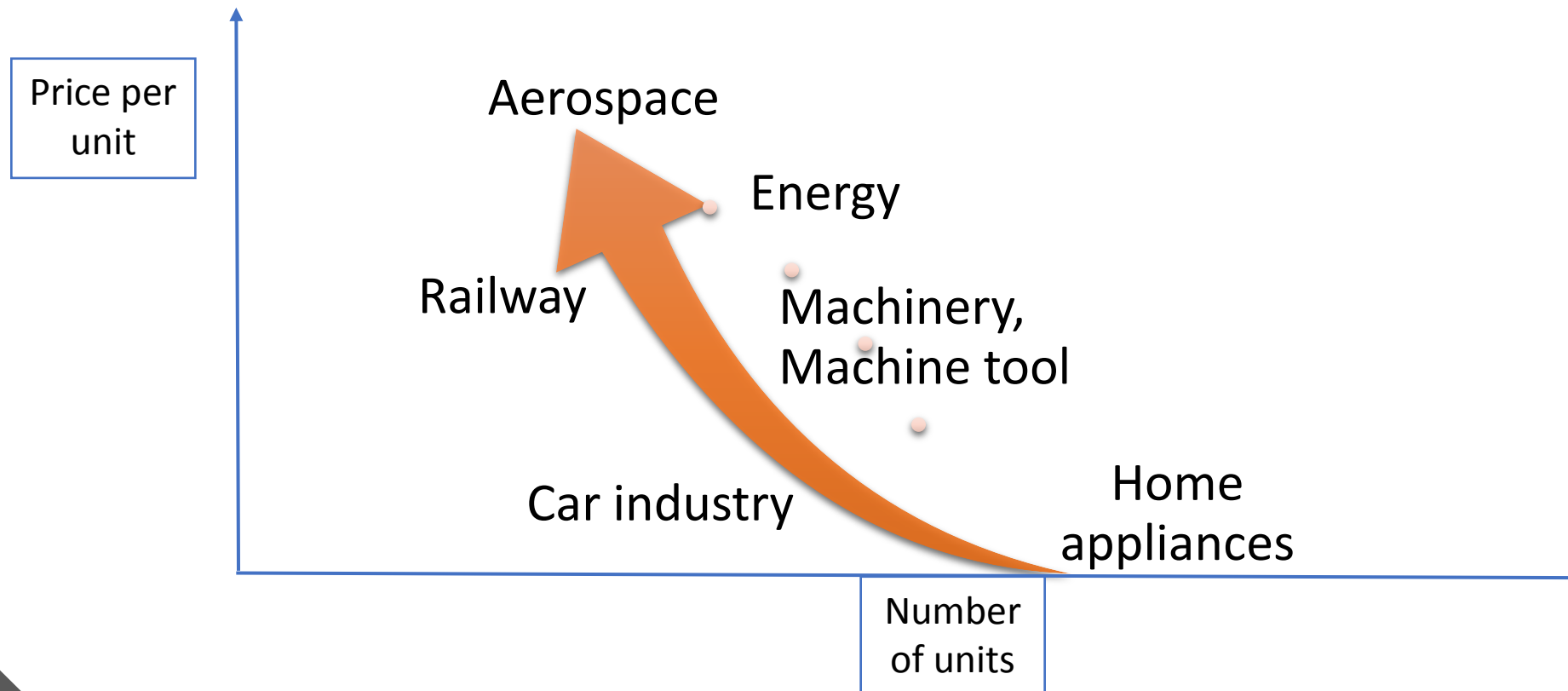
- There is a market to absorb the refurbished products in BC
- There is a case to sustain a 'REMAN' activity in BC
- Collaboration agreement signed: EMAÚS, SARETEKNIKA and ACEDE
- New activity created: WEEEPaR setup in MONDRAGON
- Commitment to start at shared risk the pilot phase in Mondragon
- If pilot phase results real meet viability study estimate, progressive expansion of the model

CONCLUSION–

If there is a 'REMAN' case in Home Appliances...

Providing there is a market potential (depending on each sector and geographic area), REMAN can be extended to industry by other mean:

Reversing the innovation flow (Jugaad = Reverse Innovation)



NEXT STEPS–

From this experience, and with some of the REMAN context knowledge we learnt in the Basque Country, together with ACLIMA cluster (Environment Industries Cluster) we are starting to call for a 'table' of ACTIVE AGENTS in REMAN in Basque Country to start dinamising it and:

- Learn from experiences: errors are bery much appreciated!
- Find patterns
- Linking to other REMAN nodes
- Support old and new REMAN initiatives

Are you one of those? Talk to you later! You are very welcomed

ESKERRIK ASKO!

THANKS A LOT!



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