



**European Institute of
Public Administration (EIPA)**

Technical Report – Part IV: Training programme and materials

**Report submitted within Specific Contract
SRSS/SC2018/004- LOT 1**

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Programme

MONDAY 25 FEBRUARY 2019

09.00 Introduction and objectives

Presentation of the lecturers, programme and seminar objectives.

09.15 The purpose RIA and its main steps

Objectives, analytical steps and tools for RIA

09.45 How to define a problem, a baseline, objectives and policy options?

Presentation of the requirements of a sound problem definition and objectives based on examples

10.45 Break

11.00 Introduction to Late Payments and Ship Dismantling cases and the group exercise.

The participants are divided into different working groups and, based on a number of documents and data, they are asked to develop the first steps of a RIA. The Late Payments and the Ship Dismantling regulations will constitute the basis for the exercise. The participants will need to describe a problem definition, objectives and at least three policy options. While conducting the group work, participants will be guided and assisted by the lecturer who will monitor the work progress.

12.30 Lunch break

13.30 Debriefing cases Late Payments and Ship recycling

Presentation and discussion of the group exercise results

14.00 How to analyse impacts and compare policy options?

The key steps of identifying and analysing impacts, the comparison of policy options, as well as the monitoring and evaluation provisions in a RIA are discussed.

14.45 Break

15.00 RIA and EU directives

Presentation of the challenges and opportunities to carry out an RIA on EU policy measures. The presentation includes suggestions for Polish RIAs and uses the Single Use Plastics directive by way of example.

15.30 Group exercise: Single Use Plastics (SUPs) proposal for a directive

Participants receive an excerpt of the SUPs directive and are asked to consider policy options and impacts in the context of transposition. The group reflection is followed by a collective debriefing.

16.15 End of day 1

TUESDAY 26 FEBRUARY 2019

09.00 The principles of calculating Administrative Burdens (AB)

Presentation of essential concepts (e.g. information obligation, administrative activity, price, quantity, etc.), presentation of the Standard Cost Model (SCM) template developed in excel for Poland. Exercise 1 working with the SCM template on the identification of information obligations (IOs).

10.00 Specifying Information Obligations

Types of information obligations, cost vs. burden and the origin of the IO. Exercise 2 working with the SCM template on the specification of the IOs.

10.30 *Break*

10.45 Identifying the target group/event

Presentation on determining Q (quantity), with attention to segmentation, events, and frequency. The presentation is followed by Exercise 3 working with the SCM template on determining target groups.

11.45 Determining non-standard activities

Presentation on determining price, wage/rates, time and out-of-pocket costs, followed by Exercise 4 working with the SCM template on non-standard activities

12.45 *Lunch break*

13.30 Reducing administrative Burdens

Identifying reduction possibilities through the use AB reduction tree. Exercise 5 working with the SCM template on calculating AB reductions

14.00 Guidance on the identification and measurement of economic benefits

Presentation based on the guidance document on regulatory benefits. The presentation concentrates on the concepts and practical steps required to gauge regulatory and economic benefits in particular.

16.15 *End of day 2*

WEDNESDAY 27 FEBRUARY 2019

09.00 A RIA in practice. The case of meal vouchers: problem, objectives, options, stakeholders

Based on the meal voucher case, the participants are asked to develop a complete RIA starting with the development of the problem definition, the objectives and policy options.

10.30 *Break*

10.45 Identifying, calculating and comparing impacts and benefits for meal vouchers

Based on the policy options developed during the preceding session, the participants need to identify the impacts and benefits involved. Following their identification, the participants will calculate the costs/benefits using the SCM template.

**Seminar Regulatory Impact Assessment (RIA)
Warsaw (NL), 25-27 February 2019**



Improvement of the regulatory framework quality in Poland
SRSS/SC2018/004-lot1

12.30 *Lunch break*

13.30 A RIA in practice. The case of Late Payments in Poland. From options to impacts

Based on the problem definition and objectives established during DAY 1, participants further consider the policy options and their impacts for Late Payments. Four sequential exercises are to be made regarding the identification of impacts. Participants will need to calculate the impacts and compare the impacts using a multi-criteria methodology.

16.15 *End of seminar*

Day 1



Developing an Impact Assessment

Key analytical steps



Why the interest in IA?

- **Analytical tool**
 - helps asking some difficult but necessary questions
 - Options, Cost / Benefits / Effectiveness, Trade-offs
- **Communication tool**
 - informs decision-making
 - enhances transparency, accountability, credibility
- **Learning and appraisal tool**
 - sets basis for monitoring and ex post evaluations
 - helps thinking “outside the box” and consider new policy approaches
 - stimulates stakeholder engagement

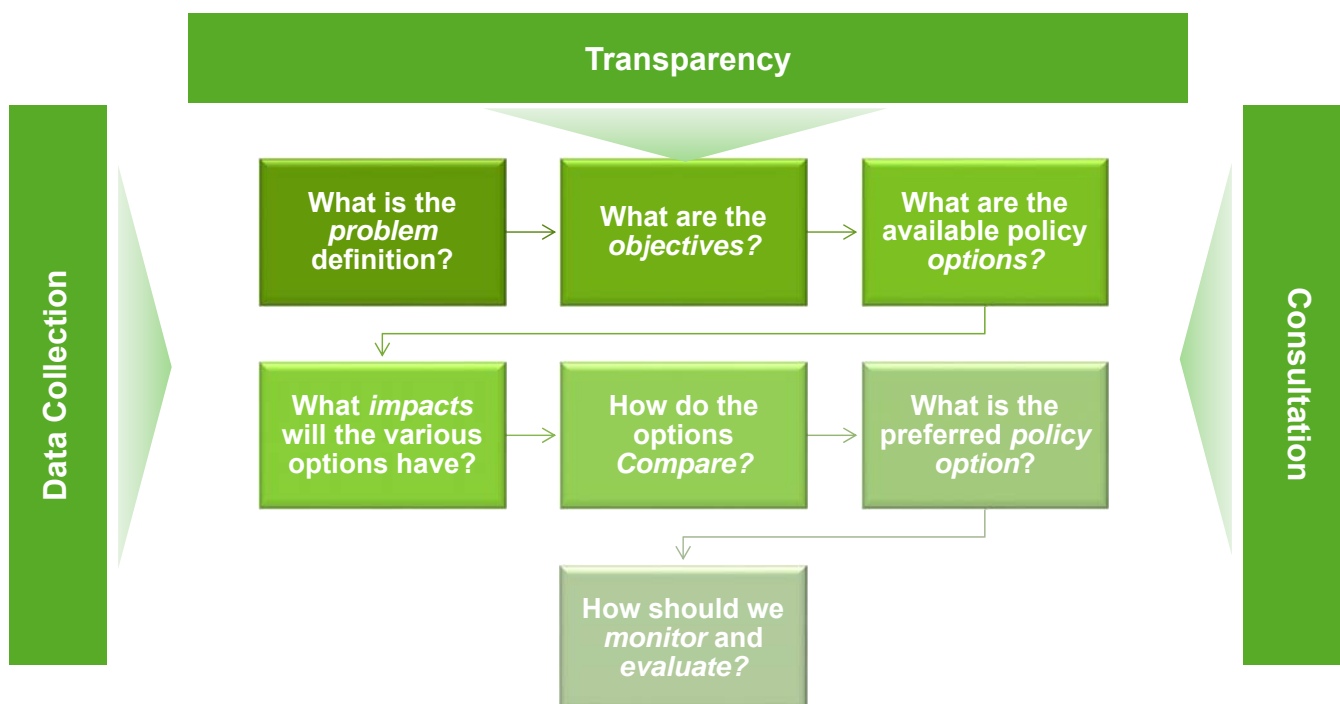


The Analytical Steps - Overview

- Problem Definition
- Objectives
- Policy Options
- Analysis of Impacts
- Comparison of Options
- Monitoring & Evaluation



The Analytical Steps - Overview



Problem Definition

What **problems/challenges**?

- Why is the situation considered problematic?
 - How does it manifest itself (economic, social, environmental)?
- How extensive is (are) the problem(s)?
- Is there supporting evidence?
- Who are the affected stakeholders?
- What are the problem drivers? Clear causal links?
- Is there a behavior that needs to be changed?



Problem Definition

- Will the situation get worse/better?
- What actions have been taken and/or are planned by EU, other States, others & will they make it better or not?
- Is there a right to act?
 - Link to legal basis? Is this the appropriate policy level?
 - Inhibiting national, European or international rules?
 - Necessity: market and regulatory failures



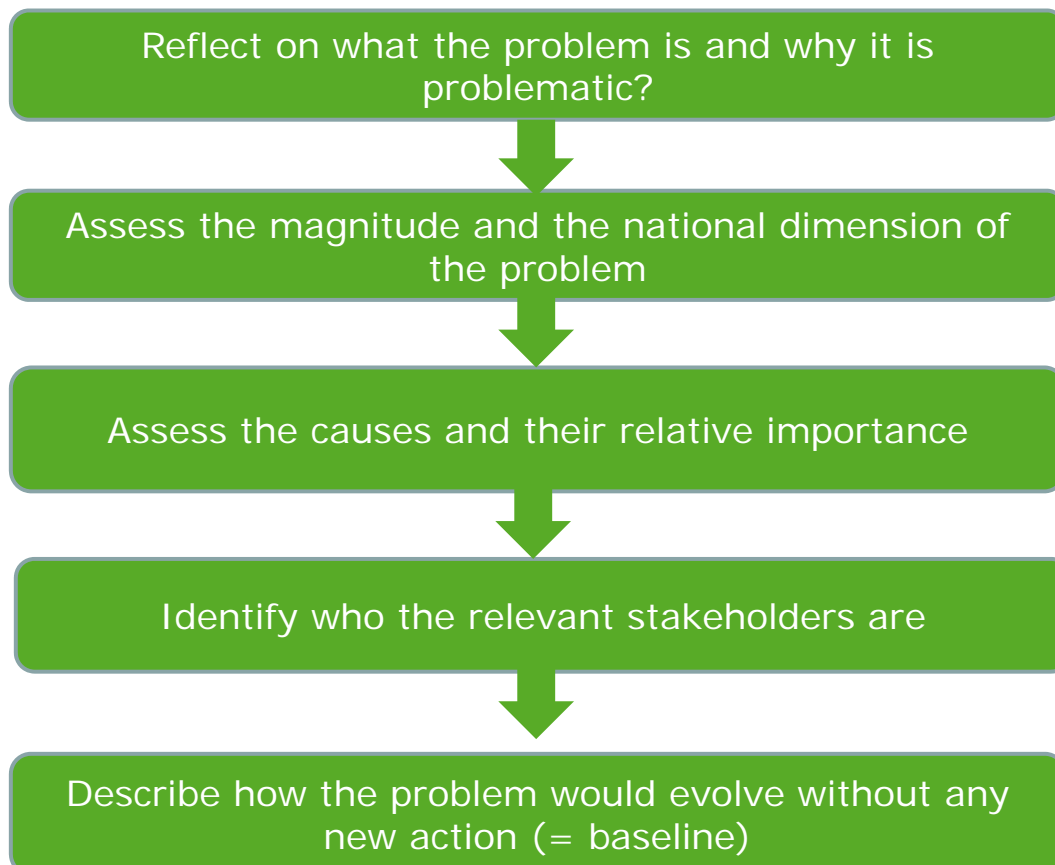
Justification of public intervention

A market fails, i.e. when market forces fail to deliver an efficient outcome (defined as a situation where no one can be made better off without someone else being made worse off). Imperfect competition, information asymmetry, external effects, public goods.

Regulations fail, i.e. when public policy action appeared justified and was implemented but failed to solve the problem satisfactorily or helped create new problems.

Equity (or other) considerations imply the efficient outcome may not be the most desirable one for the policy in question.

Behaviours are biased and individuals do not decide based on their own best interests.



How to analyse problems

Five key steps for problem analysis

1. Verify the existence of a problem/need;
2. Identify who is affected;
3. Estimate the scale of the problem/need;
4. Analyse its causes;
5. Assess the likelihood that the problem will persist in the absence of policy intervention;

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Problem analysis (1) – (2)

Establish what the problem is and why it is problematic (i.e. its negative consequences).

- | | |
|-------------|--|
| Why? | <ul style="list-style-type: none">• To identify the issues that might have to be addressed by an intervention. |
| How? | <ul style="list-style-type: none">• Describe the status quo presenting available findings from implementation experiences;• Show what, and whose, behavior would need to change and why;• Recall any relevant political objectives;• Consider additional (or related) problems linked to the pursuit of general government objectives and principles. |

Assess the magnitude of the problem

- | | |
|-------------|---|
| Why? | <ul style="list-style-type: none">• To show whether a problem is relevant or not. |
| How? | <ul style="list-style-type: none">• Collect and use all the evidence which quantifies or “monetises” the problem;• Explore the nature of the problem: market failure, implementation & enforcement problems, societal problems (e.g. pollution, health, equity, etc.). |

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Problem analysis (3) – (4)

Establish the causes (“drivers”) and assess their relative importance.

- | | |
|-------------|---|
| Why? | <ul style="list-style-type: none">• To help identify policy options which address the problem. |
| How? | <ul style="list-style-type: none">• Map the main underlying causes (drivers) of the problem;• Classify them by type to determine whether the main underlying cause lies in people’s behaviour or in some other source;• Identify what drives the behaviour that would have to change to address the problem;• Isolate the drivers that play a major role in determining a problem;• Consider using a problem tree |

Identify who the relevant stakeholders are.

- | | |
|-------------|---|
| Why? | <ul style="list-style-type: none">• To help target your consultations and prepare the analysis of problem drivers and distribution of impacts. |
| How? | <ul style="list-style-type: none">• Identify those stakeholders who are affected by the problem and those whose behaviour causes it. These could be subsets of the same group (e.g. specific cohort in the general population);• Relevant groups will depend on the nature of the problem;• Distinguish within categories when relevant (e.g.. micro, SMEs, large enterprises);• Assess the way in which different types of agents (e.g., vulnerable individuals) react to the problem matter at hand. |

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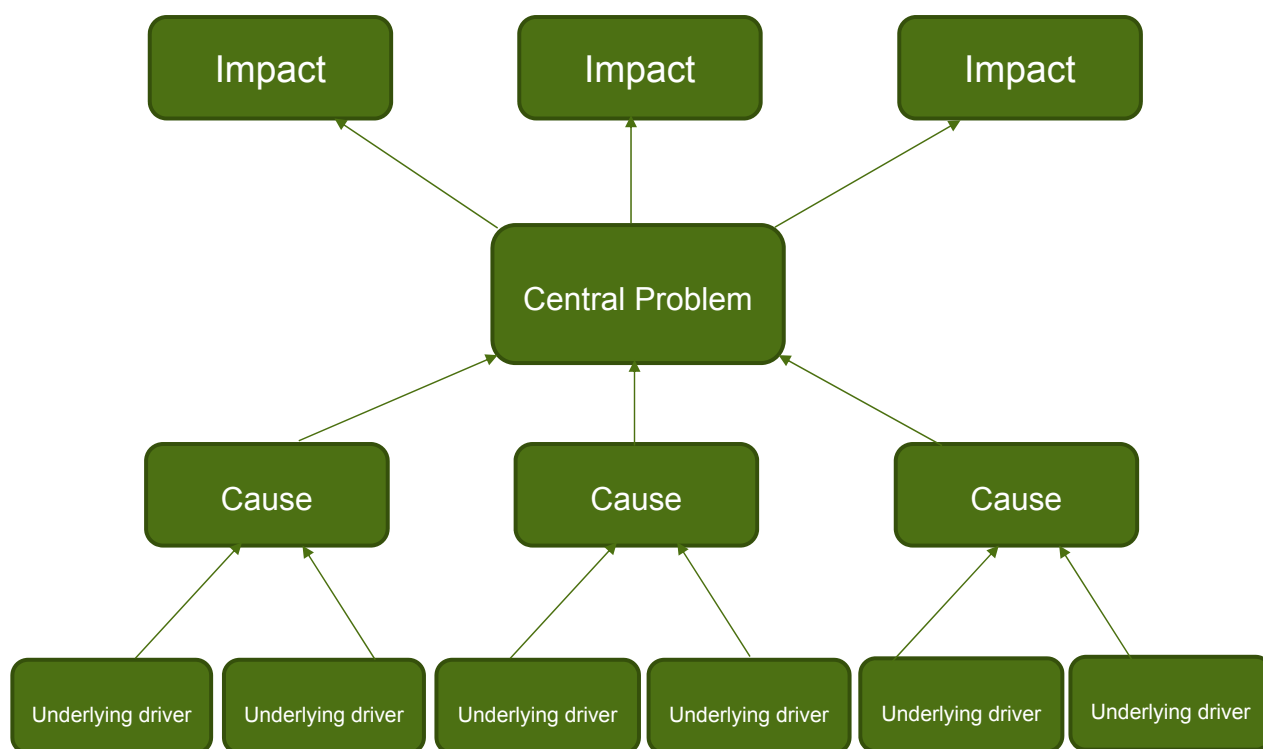
Problem analysis (5)

Describe how the problem is likely to evolve.

- | | |
|-------------|---|
| Why? | <ul style="list-style-type: none">• To verify if the need for a possible policy initiative is going to persist;• To set a no-policy change or baseline, scenario against which the impacts of policy options will be measured and compared. |
| How? | <ul style="list-style-type: none">• Nature of baseline scenario: evidence-based qualitative assessment to fully-fledged modelling scenario;• Baseline scenario ≠ status quo (analysis should look at the likely evolution of the identified problem drivers and show how this will affect the existence and magnitude of the problem);• Factor in the influence of societal developments (e.g. internet) and consider recent trends and implementation of existing policy. |

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Problem tree



CONSEQUENCES



PROBLEM

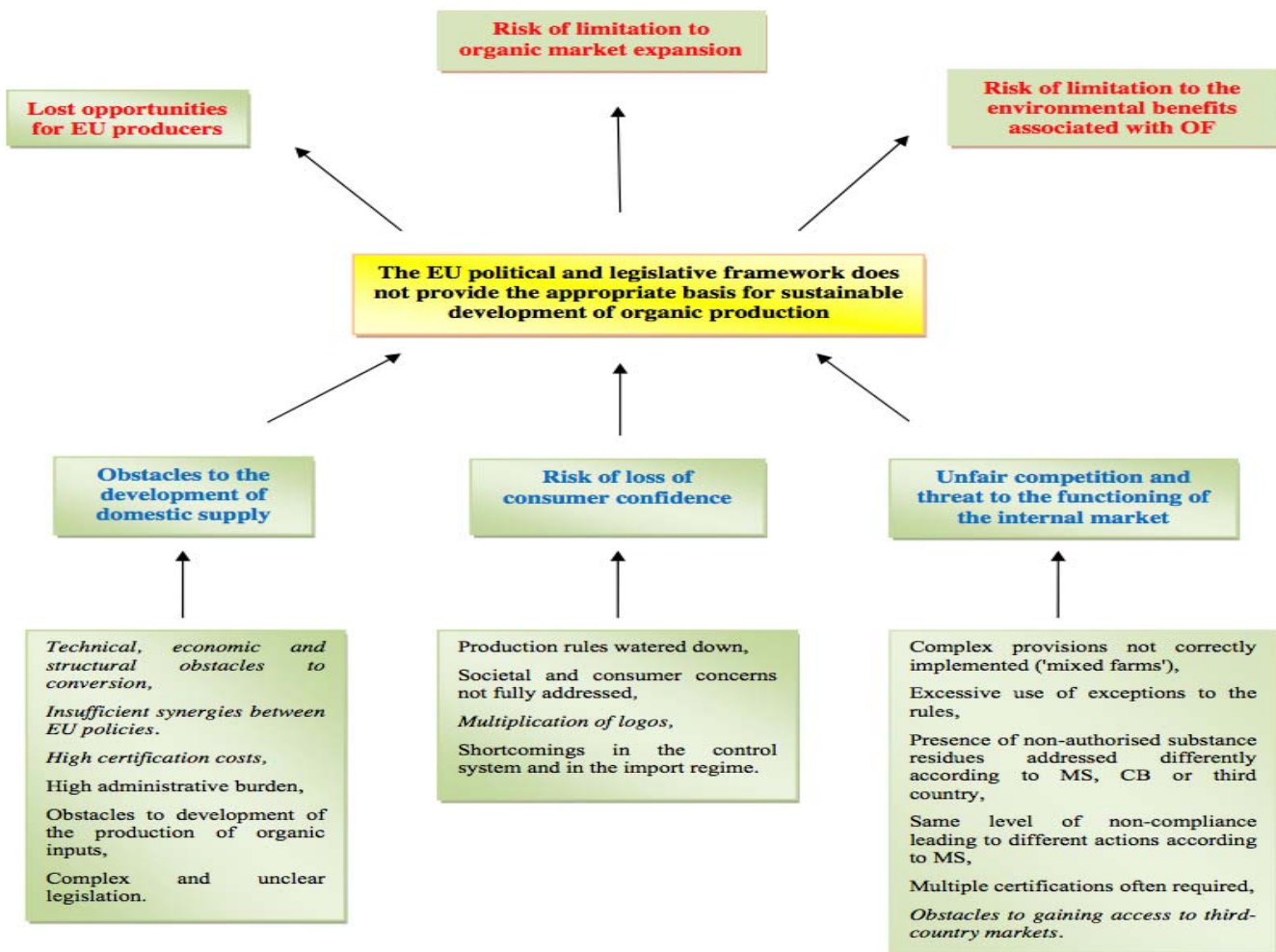
The regulatory framework is outdated and insufficiently supports stable and future-proof growth of the .eu domain

PRIORITIES



CONTEXT

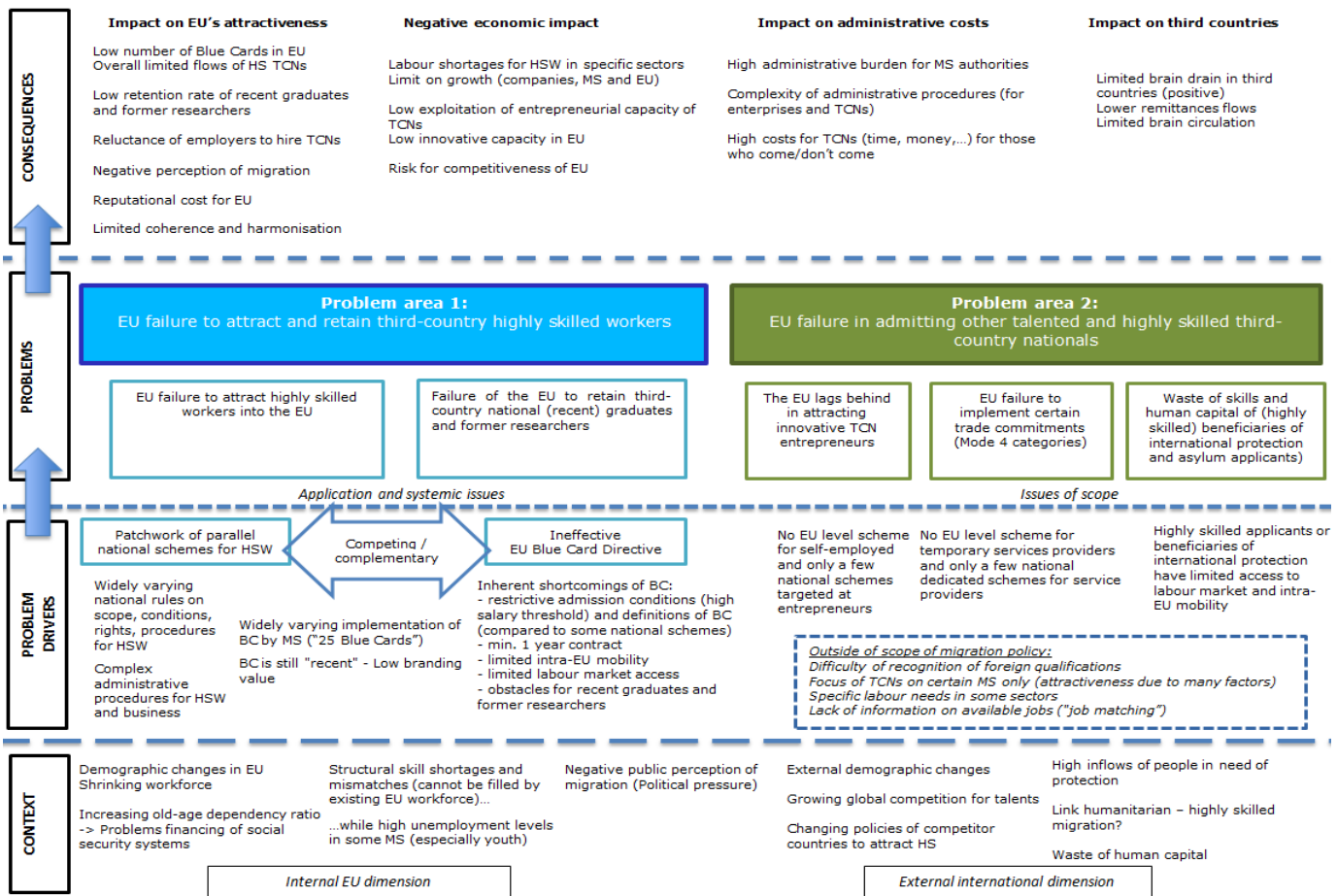




MARKET DYNAMICS		DRIVERS	PROBLEMS	CONSEQUENCES
Market orientation of EU agriculture (no more price support)	Atomistic structure of agricultural producers & small manufacturers of food products	Imbalance of bargaining power	Occurrence of unfair trading practices	Transfer of excessive risk and costs to weaker parties
Insertion of European food supply chains in global market		Divergence of UTP rules	Under-protection against UTPs	Diminished part of added value in food supply chain for weaker parties
Concentration of downstream operators: retail and processing	Increased price and income variability in agriculture	Lack of coordination among MS enforcement authorities		Dissimilar business conditions for operators in EU

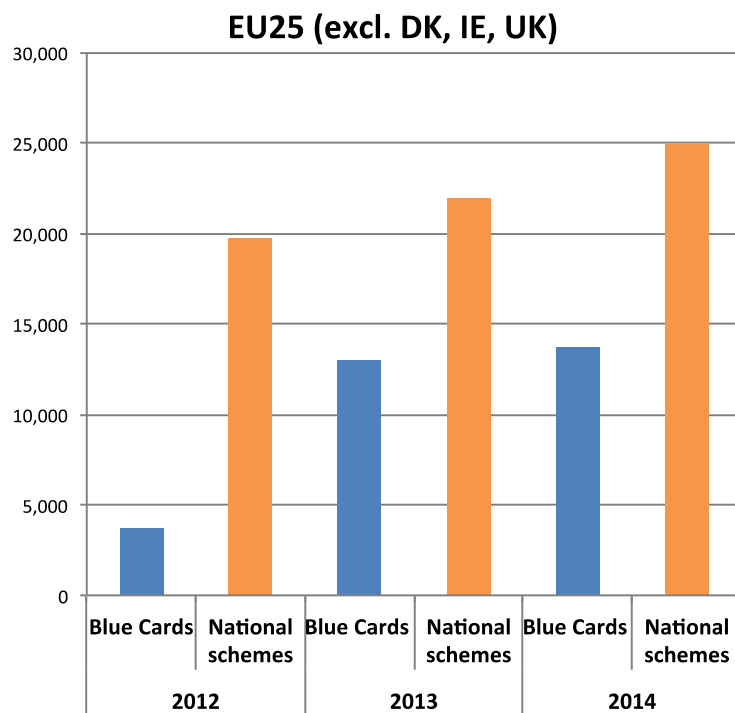
DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
on unfair trading practices in business-to-business relationships in the food supply chain

{COM(2018) 173 final} - {SWD(2018) 91 final} - {SWD(2018) 93 final}



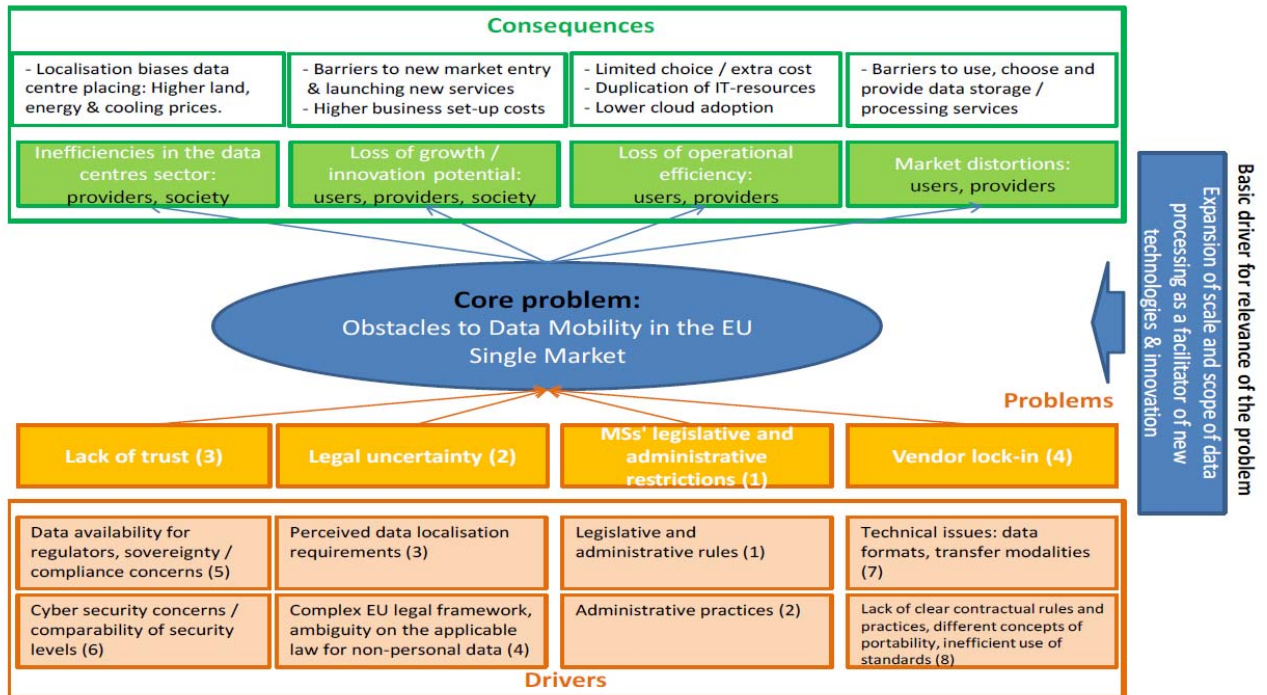
Proposal for a Directive on the conditions of entry and residence of third-country nationals for the purposes of highly skilled employment

http://eur-lex.europa.eu/search.html?qid=1467107598429&PROC_NUM=0176&DB_INTER_CODE_TYPE=OLP&type=advanced&PROC_ANN=2016&lang=en

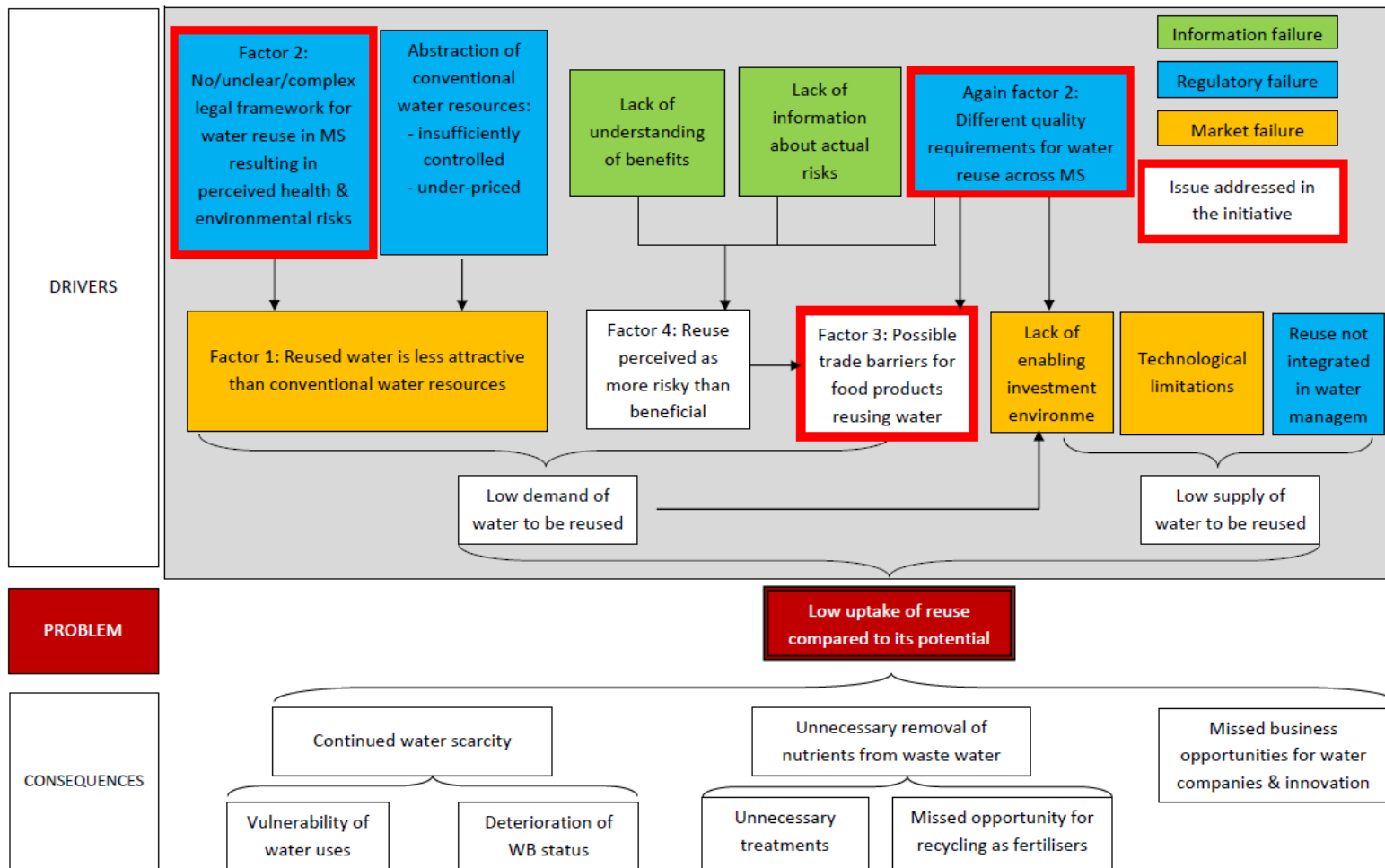


	2012		2013		2014	
	Blue Cards	National schemes	Blue Cards	National schemes	Blue Cards	National schemes
EU28		33321		32458		35530
EU25	3 664	19 755	12 964	21 940	13 852	24 916
BE	0	95	5	73	19	2484
BG	15	0	14	0	21	0
CZ	62	69	72	69	104	46
DK	not applicable	4088	not applicable	5730	0	5698
DE	2584	210	11580	11	12108	13
EE	16	0	12	0	15	0
IE	not applicable	1408	not applicable	1707	0	2438
EL	0	0	n.y.a.	0	na	0
ES	461	1231	313	1480	39	2137
FR	126	3037	371	2667	597	2561
HR	in force: 2013	n.y.a.	10	565	7	0
IT	6	1695	87	1543	165	1066
CY	0	600	0	385	0	469
LV	17	106	10	82	32	122
LT	in force: 2013	0	26	0	92	0
LU	183	21	236	0	262	0
HU	1	0	4	0	5	0
MT	0	0	4	0	2	0
NL	1	5514	3	7046	0	7123
AT	124	1158	108	1228	128	1083
PL	2	206	16	387	46	691
PT	2	313	4	767	3	989
RO	46	0	71	0	190	0
SI	9	0	3	0	8	0
SK	7	0	8	0	6	0
FI	2	749	5	971	3	1120
SE	in force: 2013	4751	2	4666	0	5012
UK	not applicable	8070	not applicable	3081		2478

The Problem Tree



Proposal for a Regulation on minimum requirements for water reuse. COM(2018) 337



Problem Definition

Develop a robust **baseline scenario**:

- Integrate the collected evidence in a robust baseline scenario
- Include expected developments in markets or relevant initiatives of other actors (international, governments, local entities, etc.)
- Describes the expected evolution without new intervention
- Has to serve as point of comparison for the policy options
- Establishes the analytical framework for the impact assessment



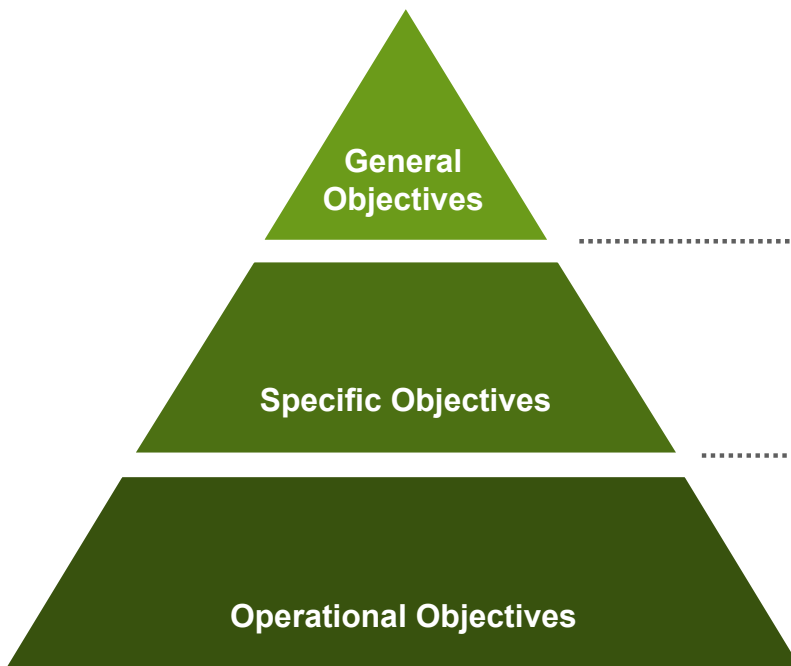
Objective Setting

What are the **objectives**?

- What are the desired impacts?
- Are the objectives linked to the actual problem?
- Are the objectives 'S.M.A.R.T.' enough to allow monitoring of progress?
- Are they consistent with other policies or strategies?
- Do they set out an 'intervention logic' (i.e. address the problems)?
 - Can the immediate objectives be seen to directly relate to more general objectives, and vice versa?



Hierarchy objectives



- Broad goals that link to the existing policy setting (Constitutional law, treaties, general policy approaches)
- Refer to specific policy domain or the particular nature of the envisaged policy intervention
- Objectives in terms of deliverables or objects of action
- Vary considerably depending on what type of policy examined



Example hierarchy of objectives

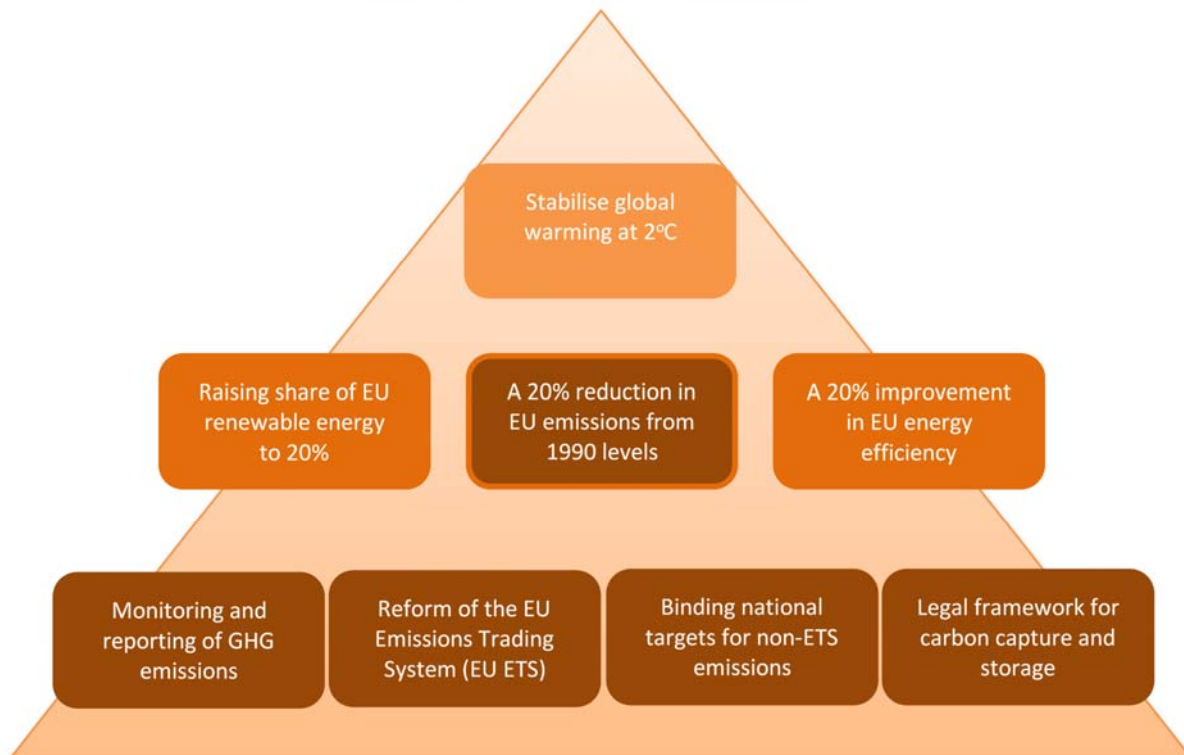
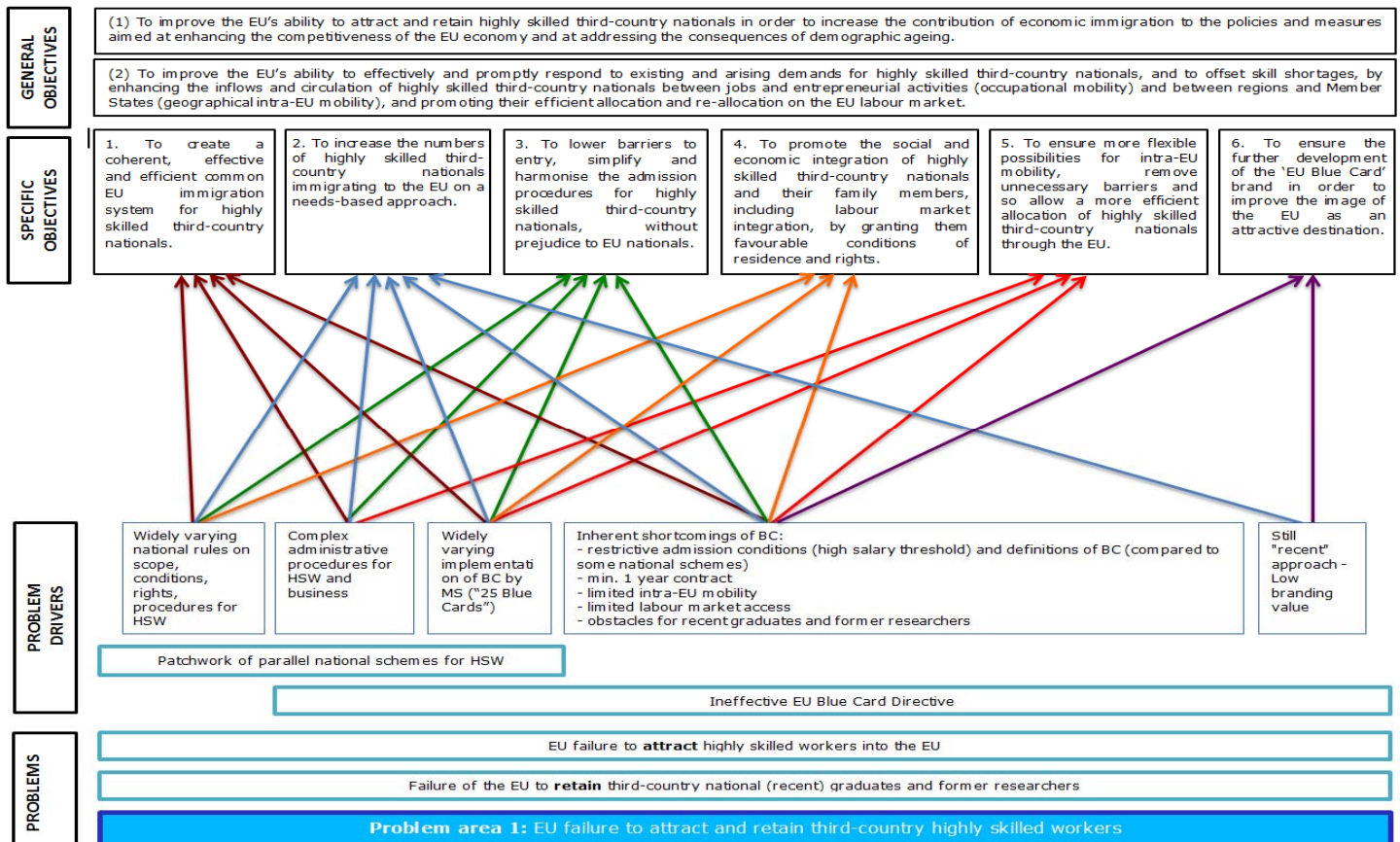
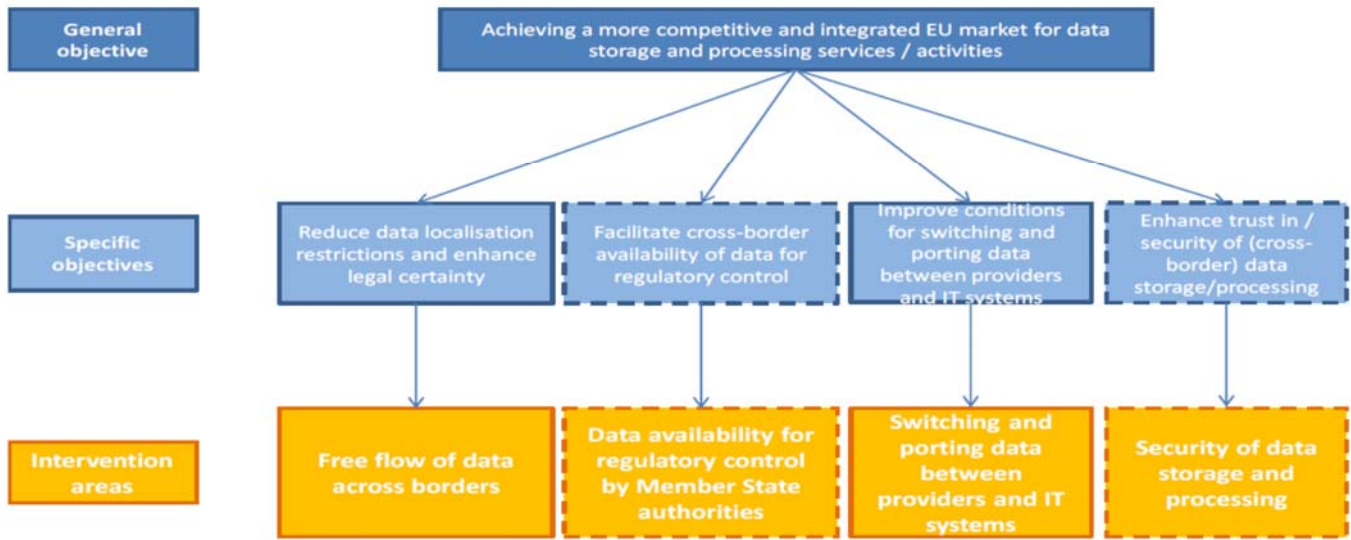
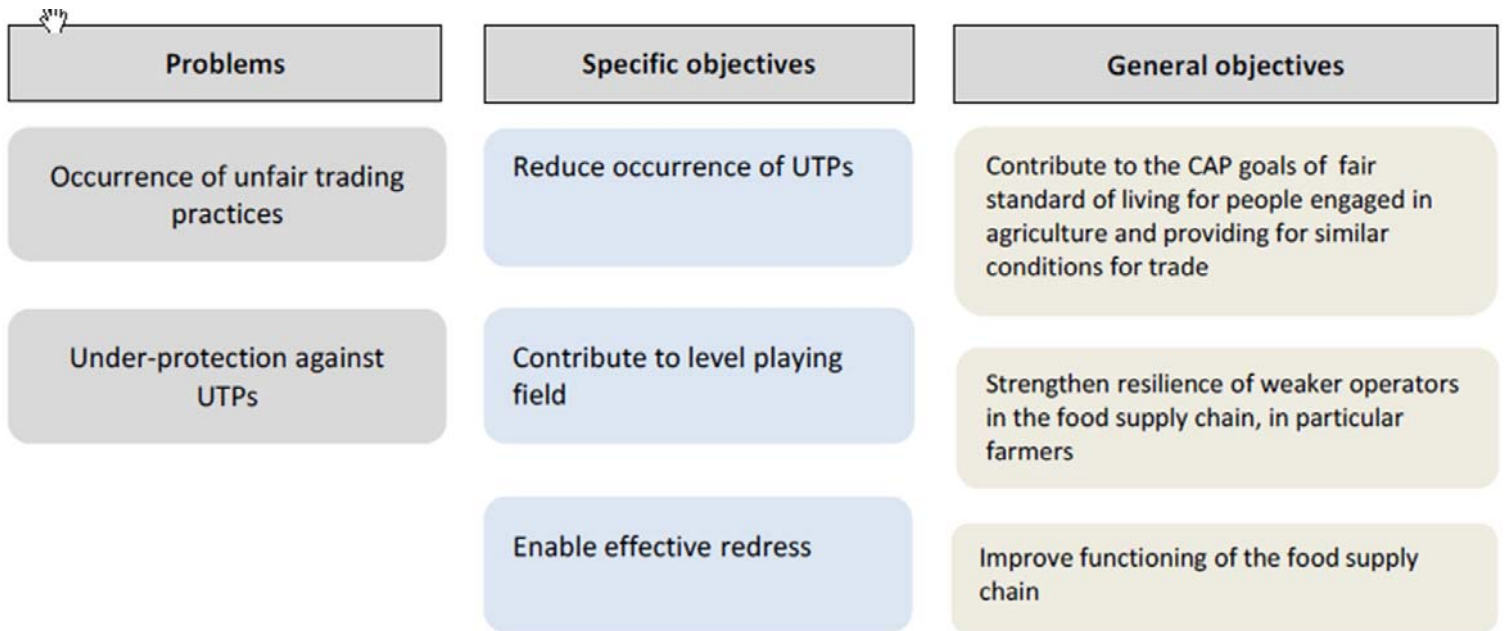


Figure 4 – Intervention logic of the initiative

Intervention logic – free flow of data cooperation framework





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{COM(2018) 173 final} - {SWD(2018) 91 final} - {SWD(2018) 93 final}

Link objectives to other parts of the IA

- **Link objectives with your problem analysis**
 - Keep stakeholders in mind!
 - **Link objectives with the identification of policy options**
 - **Link objectives with the assessment and comparison of policy options**
 - Effectiveness!
 - **Link objectives with your future monitoring and evaluation activities**
 - Indicators!
- ⇒ An re-iterative process

Policy Options

What are the policy options?

- First define the substance of different possible interventions
- Then see which instrument (regulatory or non-regulatory) can be used to meet the objectives
- Screen them to see which can best meet the **objectives**
- Measure against
 - **Effectiveness**: best placed to achieve the objectives
 - Efficiency: cost-effectiveness
 - Consistency: limiting trade-offs across the economic, social and environmental domains



Policy Options

- **Do not choose immediately**
- Always include “**no policy change**” option
- Work with **realistic** and **substantial** options
- Consider **simplification**
- Consider improved **implementation/enforcement**
- Consider **non-regulatory** interventions
- Consider broadening/deepening **existing approaches**
- **Include options** with considerable **stakeholder** support
- Policy options ≠ legal instruments
- Policy options ≠ implementation modalities



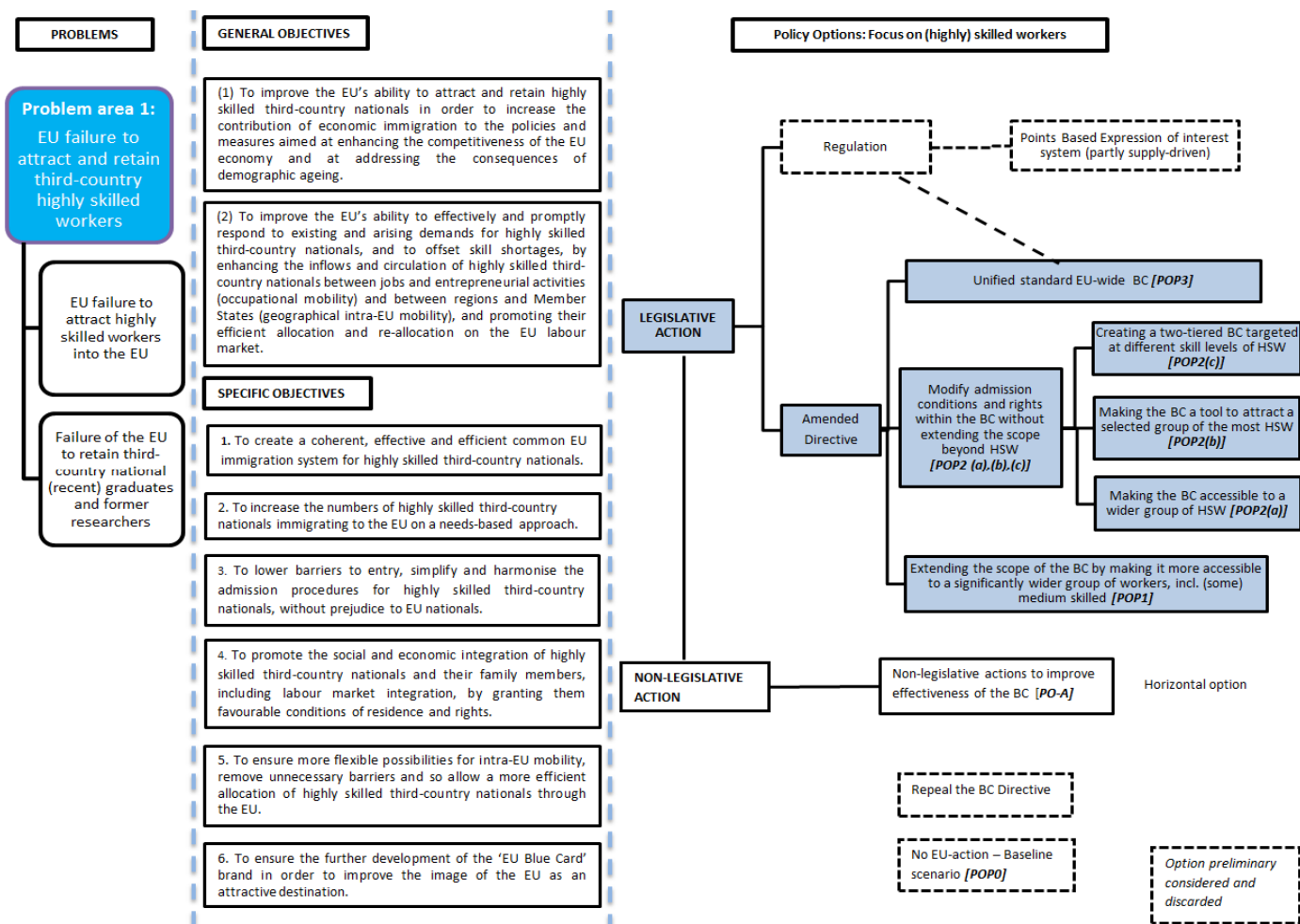
Policy Options

- Draw-up a ‘short-list’ of options (3-6) for further analysis
- There are always alternatives!
- Always include “no intervention” or “continued intervention”
- Avoid working with only 3 options => **“straw-man” option**
- Use effectiveness, efficiency, coherence criteria
- Provide a complete description of the retained options (incl. instruments and implementation)
- Explain why other options will not be pursued further



Overview policy instruments





	Package 1	Package 2	Package 3	Package 4
	General coverage & enhanced enforcement and coordination	Targeted coverage all operators & enhanced enforcement and coordination	Targeted coverage - protection of SMEs & enhanced enforcement and coordination	Targeted coverage - protection of SMEs & enforcement and coordination (recommendation)
Scope of UTP rules	Principle-based prohibition of UTPs	Specific UTPs listed as prohibited	Specific UTPs listed as prohibited	Specific UTPs listed as prohibited
Coverage of products	Agricultural and processed agricultural products	Agricultural and processed agricultural products	Agricultural and processed agricultural products	Agricultural products
Coverage of operators	All operators	All operators	Protection of SMEs across the chain	Protection of SMEs across the chain
Enforcement	Minimum requirements "plus"	Minimum requirements "plus"	Minimum requirements "plus"	Minimum requirements
Coordination	Network of competent authorities	Network of competent authorities	Network of competent authorities	Baseline (High Level Forum)
Instrument	Regulation	Directive	Directive	Recommendation

How to identify policy options

Five steps to follow

1. Construct a baseline from which the impacts of the policy options will be assessed;
2. Start by compiling a wide range of alternative policy options;
3. Identify the most viable options;
4. Double check the suitability of the retained policy options; and
5. Describe in reasonable detail the key aspects of the retained policy options to allow an in-depth analysis of the associated impacts.

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Policy options (1)

The Baseline

- “No policy change” scenario;
- All relevant national policies and measures assumed to continue in force;
- Expected relevant socio-economic developments (aging, GDP growth, etc.);
- Important technological/societal developments (internet and social media);
- Set for an appropriate time horizon (“sunset clause”);
- Approach: case-by-case basis;
- Present transparently the “true” impacts of the various policy options.

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Policy options (2)

Consider a wide variety of policy options in addition to the baseline (no policy change) to look at content and tools/instruments.

- Why?**
- To think outside the box and avoid regulatory bias;
 - To show other parties that their preferred policy option has been considered.
- How?**
- Ask yourself “what could affect the drivers of a problem?” and identify as many policy responses as possible;
 - Consider the widest range of instruments;
 - Link policy options to the drivers of the problems and the identified objectives (intervention logic);
 - Ask for stakeholders’ ideas and opinions;
 - Consider all options (considerable or little support).
- What?**
- Consider alternative types of policy responses to reach the objective;
 - Consider non-regulatory alternatives (e.g. self- or co-regulation) and market-based solutions;
 - Consider ways to achieve existing objectives **more simply and cheaply and to limit the administrative burdens** of those affected by the policy.

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Policy options (3)

Screen your options

- Why?**
- To focus the analysis on the viable options.
- How?**
- Excluding options at this stage should be easy to justify. Reasons should be as clear, self-evident and incontrovertible as possible.
- Key criteria for screening.**
- **Legal feasibility;**
 - **Technical feasibility;**
 - **Previous policy choices;**
 - **Coherence with other policy objectives;**
 - **Effectiveness and efficiency;**
 - **Proportionality;**
 - **Political feasibility;**
 - **Relevance.**

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Policy options (4)

Outline the retained options in greater depth

- Why?**
- To allow the identification of the impacts of alternative options;
 - For transparency.
-
- How?**
- Options should be sufficiently well developed to allow you to differentiate them on the basis of their performance in achieving the identified objectives.
 - Describe in a precise way the retained options so as to make clear how they would be implemented, monitored and/or enforced, by whom and over what timeline and whether complementary actions might be necessary to ensure effective implementation.
 - Provide enough detail on their actual content;
 - Express the options in terms of the specific actions that will have to be undertaken by various stakeholders.

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Impact Analysis

What are the likely **impacts**?

- Examine for all short-listed options
- Identify direct/indirect impacts across social, environmental, economic dimensions
- Tests exist for specific impacts (eg. Standard Cost Model and SMEs)
- Identify who is affected
- Consider compliance and implementation issues
- Assess impacts in qualitative, quantitative, and monetary terms where possible
- See what tools are available to undertake quantitative analysis

Identification of impacts

Overview of key impacts to be screened

Economic	Social	Environmental
Macroeconomic environment	Employment	The climate
Competitiveness, trade and investment flows	Working conditions	Efficient use of resources (renewable & non-renewable)
Operation/conduct of SMEs	Income distribution, social protection and social inclusion (of particular groups)	Quality of natural resources/fighting pollution (water, soil, air etc.)
Regulatory burdens on business	Public health & safety and health systems	Biodiversity, including flora, fauna, ecosystems and the services they provide and landscapes
Increased innovation and research	Job standards and quality	Reducing and managing waste
Technological development / Digital economy	Education & training, education & training systems	Minimising environmental risks
Third countries and international relations	Crime, terrorism and security	Protecting animal welfare
Energy independence	Governance and good administration	
Consumers and households		
Property rights		
Public authorities and budgets		
Economic and social cohesion (specific regions and sectors)		
Impacts in developing countries		
Sustainable development		
Fundamental Rights: Dignity; Freedoms; Gender equality, equality of treatment and opportunities, non-discrimination, rights of persons with disabilities; Solidarity; Citizens' Rights; Justice.		

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Impact Analysis

1. Describe the impacts in qualitative terms
2. Consider who will be impacted (stakeholders)
3. Focus on the most significant impacts
4. Express the most significant impacts as positive/negative impacts
 1. Consider distributional effects
5. Where possible quantify and monetize the impacts
6. Consider impacts on:
 1. Administrative costs
 2. SMEs/micro-enterprises
 3. Vulnerable societal groups

Examples of +/- impacts

Benefits for citizens or consumers	<ul style="list-style-type: none">▪ better access to information, lower prices, safer products, more quality assurance, improved working conditions, etc.
Benefits for businesses	<ul style="list-style-type: none">▪ lower production costs, shorter procedures, subsidies, more legal certainty, transparency and predictability, lower commodity prices, emergence of new markets, etc.
Benefits for the government	<ul style="list-style-type: none">▪ more targeted regulations and procedures, revenue from taxes, lower monitoring and enforcement costs, less administrative formalities, etc.
Benefits to society	<ul style="list-style-type: none">▪ higher education level, better quality of environment, more economical use of space and resources, safer traffic, higher economic growth, higher standard of living, equitable income distribution, etc.
Disadvantages to citizens or consumers	<ul style="list-style-type: none">▪ increased consumer prices, reducing the variety of goods and services, increased insecurity, higher health expenditures, etc.
Disadvantages for businesses	<ul style="list-style-type: none">▪ higher energy and commodity prices, investment and operating costs triggered by changes in production process, levies, costs incurred by trade barriers, greater complexity of regulations, new administrative burdens, etc.
Disadvantages for the government	<ul style="list-style-type: none">▪ investment in infrastructure and training to implement the legislation, cost of data collection and data management, increased monitoring and enforcement costs, etc.
Disadvantages to society	<ul style="list-style-type: none">▪ a disruptive redistribution of income or wealth, obstruction of innovation, lower employment, reduced economic growth, environmental damage, resource depletion, etc.



Options Comparison

How do the options **compare**?

- Weigh the positive and negative impacts of each option
- Work with clear evaluation criteria
- Compare the quantified and qualitative impacts
- Compare the options in terms of impacts and evaluate them on criteria of effectiveness, efficiency, consistency
 - NB.: A 'full' Cost-Benefit Analysis is not always possible, necessary or appropriate
- Provide comparative tables



Example: summary quantified impacts

	Option A	Option B	Option C	Option D	Option E
Environmental Impacts					
Recycled hazardous waste materials	0	-6%	+23%	+30%	+23%
Social impacts					
Accidents	0	+1489	-473	-996	-473
Employment (FTE)	0	+200	-860	-1900	-600
Economic impacts					
Revenue owners waste (€)	0	+12.500.000	-22.500.000	-63.000.000	-22.500.000
Administrative costs recycling facilities (€)	0	0	+2.000.000	+30.000.000	+2.000.00



Example ranked policy options

	Option B	Option C	Option D	Option E
Effectiveness				
Objective 1 Environmental protection	-	+	++	+
Objective 2 Worker safety (accidents)	--	+	++	+
Objective 3 Legal certainty	+	+	+	++
Efficiency	-	+	-	+
Coherence	No, significant trade-off	Yes, limited trade-off	Yes, but significant trade-off	Yes, limited trade-off
Implementation and compliance risk	Limited risks	Limited risks	Important risks	Limited risks
Conclusion				Preferred option



**Policy Options for addressing
Problem area 1:
Focus on (highly) skilled workers**

**Policy Options for addressing
Problem area 2:
Focus on other categories
(extending the BC personal
scope)**

	Legislative options					Horizontal options		
	POP1	POP2(a)	POP2(b)	POP2(c)	POP3	PO-A	PO-B	PO-C
Effectiveness in achieving the objectives								
GO1: improve ability to attract and retain to enhance competitiveness and demographic ageing; SO2: increase numbers of highly skilled TCNs; SO3: lower barriers to entry; SO4: promote social and economic integration via favourable residence conditions and rights; SO6: ensure 'EU Blue Card' brand	+3	+2	+1/+2	+2/+3	+2	0	+2	0
GO2: improve ability to respond to demands for highly skilled TCNs and offset skill shortages by enhancing inflows, occupational and geographical (intra-EU) mobility; SO5: ensure more flexible intra-EU mobility and more efficient (re)allocation of highly skilled TCNs in EU	+2	+2	+1	+2	+2	+1	0	+1
SO1: create a coherent, efficient and effective common immigration system for highly skilled TCNs	-1	+3	+1	+1	+1	0	-1	0
Economic impacts								
- Impact on growth and competitiveness	+3	+2	-1/0	+1/+2	+2	0	+1	0
- Impact on SMEs	+3	+2	0	+2	+1	0	+1	0
- Impact on innovation and research	+2	+2	+1	+2	+1/+2	0	+1	0
Social impacts								
- Impact on EU citizens	-1/ -2	+2	+1	+2	+1	0	+2	0
- Impact on third country national HSW and on their fundamental rights	+2/+3	+2	+1	+2	+2	+1	+1	+2
Impact on International Relations								
- Impacts on third countries	+2	+1	0/+1	+1	+2	0/+1	0	0
Efficiency								
- Administrative costs, cost/benefit effectiveness and practical or technical feasibility	+1	+3	0	+1	+2	+1	+1	+1

	Package 1		Package 2		Package 3		Package 4	
	General coverage & enhanced coordination and enforcement		Targeted coverage all operators & enhanced enforcement and coordination		Targeted coverage - protection of SMEs & enhanced enforcement and coordination		Targeted coverage - protection of SMEs & enforcement and coordination (recommendation)	
	Effectiveness	Efficiency	Effectiveness	Efficiency	Effectiveness	Efficiency	Effectiveness	Efficiency
Degree of harmonisation	+	+	+	+	+	+	+	+
Scope of UTP rules	+	-	+	0	+	0	+	0
Coverage of operators	++	0	++	0	++/++	+	++/++	+
Coverage of products	++	0	++	0	++	0	+	-
Enforcement	++	+	++	+	++	+	+	+
Coordination	+	0	+	0	+	0	0	0
Instrument	+	-	+	0	+	0	0	0

Options Comparison (cont.)

- Rank the options and, if possible, identify a preferred option
- Explain trade-offs
- But the final policy choice is a political one:

IA is an aid to political decision-making –
NOT a substitute for it



Monitoring & Evaluation

- Planning for future **monitoring** and **evaluation**
- Identify core progress indicators for the key objectives
- Where a preferred option is identified:
 - Consider a broad outline for possible future monitoring
 - Consider a broad outline for possible future evaluation arrangements



Monitoring Blue Card

Main Objectives	Monitoring indicators	Data sources
<p>OO1: increasing the numbers HSW in line with the technical projections of additional permits simulated for the POPs</p> <p>OO3: increase the retention rate of HSW and have more transition into long-term resident status or citizenship</p> <p>OO5: conduct promotional activities and surveys to measure the increased fame of the scheme</p>	<p>Number of Blue Cards granted in EU</p> <p>Overall number of HSW admitted to EU</p> <p>Retention rates of third-country national (recent) graduates and former researchers</p> <p>Number and proportion of HSW having chosen the EU as their definitive place of residence¹⁶²</p> <p>Average period of residence in EU of HSW</p> <p>Size and composition¹⁶³ of HSW inflows in EU compared to international benchmark countries</p> <p>Proportion of HSW in the total highly skilled occupations</p> <p>Proportion of HSW in total immigration</p> <p>Proportion of spouses and working age children of HSW with a regular or highly skilled job in EU</p> <p>Perception of EU citizens toward highly skilled migrants</p>	<p>Eurostat statistics</p> <p>Member State immigration authorities</p> <p>Member State Employment Services</p> <p>National statistics</p> <p>Labour Force Survey (LFS)</p> <p>Surveys at EU and national level (e.g. European Migration Network, Eurobarometer)</p> <p>National Contact Points on the Blue Card (BC NCPs)</p> <p>OECD data and reports</p>



Monitoring Blue Card

<p>OO4: increase numbers of HSW making use of mobility provisions and employed in shortage occupations</p>	<p>Estimated extent of the skill shortages at EU/Member State level filled by HSW</p> <p>Employment and unemployment rate of highly educated EU nationals and HSW¹⁶⁴</p> <p>Mobility rate of HSW: Number of Blue Card holders moving to a second Member State for highly qualified work by making use of the possibility for intra-EU mobility</p>	<p>Surveys at EU and national level (i.e. European Migration Network)</p> <p>LFS</p> <p>Eurostat statistics</p> <p>Member State immigration authorities</p> <p>National Contact Points on the Blue Card (BC NCPs)</p>
<p>OO2: simplify and harmonise the admission procedures for HSW by significantly reducing the number of parallel schemes potentially applicable to the same person at the same time</p>	<p>Effective and correct transposition and application of a common EU Directive on HSW at all levels in Member States</p> <p>Degree of coherence and harmonisation of Member States rules for HSW in terms of diminished complexity and the number of parallel and divergent schemes</p> <p>Average administrative processing times for applications to be admitted as a Blue Card holder and a family member of a Blue Card holder</p>	<p>EU level monitoring</p> <p>MS monitoring reports</p> <p>Legal transposition studies</p> <p>Expert networks</p> <p>Member State statistics reporting</p> <p>National Contact Points on the Blue Card (BC NCPs)</p>

Monitoring UTP

Specific objectives	Source	Indicators
Reduce occurrence of UTPs	<ul style="list-style-type: none"> - Annual survey to undertakings - Members States annual reports 	<ul style="list-style-type: none"> - Declared occurrences of each UTP concerned by undertakings (share of firms declaring and frequency declared, perceived costs of UTPs) - Compliance costs for firms - Potential effects of trade diversion to the detriment of protected parties
Contribute to level playing field	<ul style="list-style-type: none"> - Members States annual reports and annual meeting of enforcement authorities - Eurostat/national statistics / EU and national market, prices/ costs observatories 	<ul style="list-style-type: none"> - Alignment of application of UTP rules (e.g. number of changes to national rules with a view to approximate practices) - Number of best practices recommendations adopted - Declared administrative costs for Members States - Relative production and consumer price changes
Enable effective redress	<ul style="list-style-type: none"> - Members States annual reports - Eurostat / national statistics / EU and national market, prices / costs price observatories 	<ul style="list-style-type: none"> - Number of complaints received (anonymously or not) - Number of mediation meetings, if applicable - Number of investigations launched (own initiative or upon request) - Share of cases resulting in findings of an infringement



EU Information sources

- **Better Regulation guidelines and toolbox**

https://ec.europa.eu/info/law/law-making-process/planning-and-proposing-law/better-regulation-why-and-how/better-regulation-guidelines-and-toolbox_en

- **Impact assessment reports**

<http://ec.europa.eu/transparency/regdoc/?fuseaction=ia&language=en>

- **Inception Impact Assessments & Roadmaps**

https://ec.europa.eu/info/law/better-regulation/have-your-say_en



1. Assignment – Ship dismantling and recycling

You are the IA working group and are you asked to develop the first steps of the IA. Please assume that you are carrying out the IA work in 2010.

Problem definition

1. What is/are the problem(s)?
2. What causes this problem?
3. What type of problem are we dealing with (market and/ or regulatory failure, discrepancy with fundamental goals)?

Consider using a problem tree to distinguish causes, effects and the central problem

4. Establish the basic elements of your baseline scenario
 - a. Legal developments
 - b. Economic developments
 - c. Stakeholders
 - d. Impacts

Objectives

5. What is the desired state of affairs? What does one seek to achieve?

Try to formulate the objectives with reference to the problem(s) and to broader policy orientations (eg. treaty, policy principles, etc.)

Make sure that the objectives are directly related to the identified problems!

Policy Options

6. Define at least three possible policy options to tackle the problem.
7. Present each option and set out the advantages and disadvantages of each option (keeping in mind the objectives).
8. Assess the effectiveness of each policy option

2. Summary

- The EU Waste Shipment Regulation requires that EU flagged ships can only be dismantled in OECD countries.
- The Waste regulation is poorly implemented because more than 90% of EU ships are dismantled in Asia (Bangladesh, Pakistan, India and China) after reflagging to a non EU-flag.
- The recycling methods in Asia mainly involve “beaching”, a dismantling method which comes at a high human health and environmental cost.
- The 2009 International Convention for the Safe and Environmentally Sound Recycling of Ships (Hong Kong Convention), seeks address the environmental, occupational health and safety risks related to Ship recycling. The Convention regulates ships (eg. inventory of hazardous materials, certificates, ship recycling plan, etc.) and ship recycling facilities (eg. authorized facilities, improved management of hazardous materials, etc.).
- The Hong Kong Convention is not yet ratified and enters into force when states covering 40% of the World’s merchant fleet and the states covering 40% of dismantling capacity, ratify the Convention (Bangladesh, Pakistan, India and China cover 95% of the dismantling capacity). The Convention is not expected to enter into force before 2020.
- EU member states have committed to ratification but none have done so yet.

3. Context

According to the current legislation (the Waste Shipment Regulation), the EU flagged ships which are going for dismantling are hazardous waste and can only be dismantled within the OECD. This legislation is almost systematically circumvented by EU flagged ships. Currently, most EU controlled ships are indeed dismantled in Asia (India, Pakistan and Bangladesh), usually through "beaching" method and with significant environmental and health impacts.

This widespread non-compliance is firstly linked with the lack of recycling capacity available within the OECD in particular for the largest ships. Developing capacity within the OECD has not been feasible in particular because of the lack of economic viability. The non-compliance is also partially driven by the interest of shipowners to avoid the costs of environmentally and socially acceptable dismantling in OECD facilities, and partially by the ease with which the legislation can be avoided: EU shipowners can with limited effort maximise the profit from selling their old vessels by choosing a non-EU jurisdiction for their vessels at the end of the life of the ships.

The Commission adopted a Communication proposing an EU strategy on ship dismantling in 2008. This strategy proposed measures to improve ship dismantling conditions as soon as possible, including in the interim period before the entry into force of the Hong Kong Convention: i.e. preparing the establishment of measures on key elements of the Convention, encouraging voluntary industry action, providing technical assistance and support to developing countries and better enforcing the current legislation. The Commission also announced that it would look at the feasibility of developing a certification and audit scheme for ship recycling facilities worldwide, and establishing a mandatory international funding system for clean ship dismantling.

The Hong Kong Convention, when it comes into force, will require Parties to the Convention (including EU Member States) to dismantle their large commercial ships only in countries that are Party to the Convention. This will include Asian countries, whose ship dismantling facilities will need to meet internationally accepted standards (higher than the current standards).

These facilities will have to treat the ships coming from non-Parties to the Convention in a similar manner as ships flying the flags of the Parties to the Convention.

The Convention was adopted in 2009 but needs to be ratified by a sufficient number of large flag and recycling states in order to enter into force and start producing effects. This is not expected to happen before 2020 at the earliest.

4. Consultation of interested parties

Most stakeholders clearly supported a prompt ratification of the Hong Kong Convention by the EU Member States in order to fulfil, to a large extent, its entry into force of provisions related to flag States whilst encouraging ratification by other States. Many stakeholders are in favour of early implementation of the Convention by the EU since they consider that waiting for entry into force of the Convention is unacceptable when ship breaking workers continue to be killed or injured at work and considerable environmental damage occurs. Some consider that the EU should not impose additional requirements that go beyond the Convention.

The main positive consequence of early implementation would be the improvement of ship recycling operations with respect to worker health and safety and environmental protection. Many stakeholders take the view that a harmonised transposition at EU level will ensure a more level playing field and reduce administrative burdens for ship owners and recycling facilities in the EU. Early transposition could also encourage the development of more ship recycling facilities. It is suggested that the Commission should promote ratification among the Member States and use its political influence to encourage recycling States to take similar action so that sufficient global ship recycling capacity is maintained.

The most significant negative consequence of early implementation identified by the stakeholders is the risk of reflagging of EU ships during their operational life to an "open register", or the reflagging of ships nearing the end of their life to non-EU countries in order to avoid complying with regional measures. Reflagging would result in a reduction of the size of the EU fleet and the EU's influence with regard to maritime issues. Another risk is that implementation would be too rapid and there would not be enough recycling capacity available for EU flagged ships in view of the phasing out of *single hull tankers* (2017). Finally, some stakeholders point out that since early implementation at EU level could make ratification by Member States apparently redundant and therefore discourage them to ratify the Convention thus postponing its entry into force.

5. Issues and international context

5.1 Large commercial European ships end up in substandard dismantling facilities outside the OECD leading to negative health and environmental impacts

The dismantling of ships is at present sustainable from a narrow economic point of view, but the costs for human health and the environment are high. It is fair to say that with regard to end-of-life ships the polluter pays principle is usually not applied. Ship owners generally make a profit from selling their obsolete ships to ship dismantling facilities or intermediate buyers, and they can maximise this profit when selling to facilities which do not follow the strictest health and safety and environmental standards.

Ship dismantling is, in principle, a very positive activity leading to reuse and recycling of large amounts of valuable resources (steel, other scrap metal and equipment in particular). But ships also contain large amount of hazardous materials such as asbestos, PCB, heavy metals, oil, mercury, ozone depleting substances (ODS) which, if not handled, removed and disposed

of in a safe and environmentally sound manner (ESM) lead to significant detrimental effects on both human health and the environment.

Most ship dismantling takes place nowadays in South Asia, on tidal beaches and under unacceptable conditions from the point of view of safety and environmental protection. This has not always be the same. Looking back, the demolition of (European) vessels has moved from the Europe and Japan during the 60's and 70's to Asian countries such as Taiwan and South Korea in the 80's where dismantling took place along piers in connection with ship building activities. As the economy grew in South Korea and Taiwan, labour costs increased making ship dismantling less attractive in these countries.

During the 1980's the method of "beaching" became the most frequent method used for demolition since expensive infrastructures like piers, sufficient depth of the harbour, cranes etc. could be replaced by a mud flat, portable equipment and a huge labour force. The South-East Asian countries are nowadays dominating the dismantling industry. Today, 95% of ship dismantling takes place in five countries (Bangladesh, China, India, Pakistan and Turkey). In these countries ship dismantling provides for employment opportunities, and resources such as scrap metals which are important in particular for the construction sector (Pakistan, Bangladesh, India) and for ship building (China). The current practices have however significant costs in the short and in the long term for human health and the environment.

Ship dismantling provides for hundreds of jobs but with important short term and long term impacts.

The number of jobs associated with ship dismantling depends upon the dismantling practices. It is pretty limited in the countries which uses the slipway; docking or afloat method. In countries using the beaching method, such as Bangladesh, India and Pakistan the level of mechanisation and the labour costs are low and this industry offers thousands of jobs.

But in these countries, ship dismantling involves high risks for human health both at the time of dismantling (deaths, injuries) and in the long term (asbestosis for example). This is primarily due to dangerous working practices (lack of training and of protective equipment, insufficient precautions against explosions and falling hazards...) and to the hazardous materials on board old ships.

Safety and health conditions in many South Asian facilities are known to be critical but official records are rarely kept, accidents and incidents are underreported and access to facilities by third party is often restricted. Unlike in India where the regional government has started to organise safety training for workers, no systematic accident precautions are at present visible in Bangladesh.

Child labour is still a reality in Bangladesh, as children represent a cheaper work force that is easy to control and unlikely to defend its rights, and even more unlikely to organize into trade unions.

Ships contains large amount of hazardous materials which are not treated in an environmentally sound manner thus creating negative impacts

According to estimates from the World Bank, more than 80 000 tons of asbestos, 256 000 tons of PCB, 224 000 tons of Ozone Depleting Substances (ODS) and around 74 000 tons of heavy metals are expected to be sent in ships for dismantling to Bangladesh and Pakistan over 2010-2030. Since there are no formal waste disposal sites in these countries, the waste mainly remain in the facilities and pollutes the water, the beach sediments, the soil of the seashore and coastal habitats. A small part is sold in equipments (PCB or ODS) or sent to rerolling mills (paints).

The dismantling of ships in South Asia takes place on sandy beaches without concrete covering or any other containment other than the hull of the ship itself. One of the traditional "cleaning" methods is the drilling of holes into the beached ship through which sea water can wash out oil-contaminated tanks at high tide. End-of-life ships are rarely pre-cleaned before their arrival.

Insufficient dismantling capacity within the OECD

According to the Waste Shipment Regulation, end of life ships are hazardous waste and should be dismantled in the OECD only.

Several stakeholders mentioned the lack of sufficient dismantling capacity (shipowners, Member States) as one of the main reasons leading to a lack of implementation of the current legislation and, consequently, as one of the main issues to resolve in any possible legislation. A majority of ship owners indeed prefers to have ships dismantled where the revenue from selling the ships is higher, thus making the establishment of a business case in the EU extremely difficult.

The dismantling capacity within the EU is therefore not able to accommodate the whole range and the total volume of the commercial EU flagged ships.

A significant recycling capacity exist outside the OECD in China, India, Pakistan and Bangladesh.

Responsible European shipowners have invested in safe and sound recycling facilities located in China and applying EU standards. The current existing capacity available in China (2,83 millions LDT in 2009) is already largely sufficient to treat all EU flagged ships by 2030 (the maximum yearly volume in the period 2012-2030 will be of 1,88 million LDT) and a new facility with a capacity of 1 million LDT will shortly start its activities.

An unfair competition in favour of poor quality dismantling

The current situation of the ship recycling market is characterised by fierce competition between the major recycling states Bangladesh, India and (to a lesser extent) Pakistan. According to the prices paid in 2009, the most competitive country is Bangladesh (299 \$/LDT) followed by India (273\$/LDT) and Pakistan (271\$/LDT).

Other competitors with higher technical standards are only able to occupy market niches for special types of ships like small ships and government vessels including warships (EU and Turkey) or the fleet of committed shipowners (Turkey and China). Facilities in China, Turkey and the EU are considered to be compliant already with the standards set up in the Hong Kong Convention. Limited investment will be needed in India where facilities have improved after the Supreme Court had decided to turn some key requirements of the, at the time draft, Hong Kong Convention into domestic law. As highlighted in the study from the World Bank, significant investments in infrastructure, training and protective equipments would however be necessary in Pakistan and Bangladesh.

Contrary to other type of waste, shipowners are paid for getting their ships recycled. From a shipowner's point of view, ship recycling is beneficial and depend mainly upon the price offered by the ship recycling facility or by an intermediate (the "cash buyer").

Shipowners decide at what point in time a ship will be sent for dismantling based on an economic comparison between the costs (maintenance, renewal of certificates..) and benefits (freigh rates) of maintaining an ageing ship in operating conditions and the benefits of sending it for dismantling.

The choice of the dismantling location is then influenced, in particular, by the price a facility can offer to the intermediary "cashbuyer" or to the ship owner. This price in turn depends on:

- Labour costs: operators in South Asia employ many unskilled labourers at extremely low wages of about 2,5 dollar per day.
- Costs of infrastructure for worker's safety and environmental protection which are linked with the dismantling methods employed as well as the existence and the level of implementation of national and international regulations regarding workplace safety and environmental impacts.

Table 1: Dismantling locations of large EU flagged commercial ships in terms of percentage of total recycling in 2009

Dismantling location for EU flagged - ships	Main dismantling method	Dismantling fraction of total
India, Pakistan, Bangladesh	Beaching	69,81%
China	Afloat	22,75%
OECD non EU	Landing, afloat	6,36%
EU	slipway, docking	0,85%
Other		0,23%
Total		100,00%

There is thus a strong economic incentive for ship owners who are not willing to act responsibly to choose recycling facilities with a particularly poor social and environmental standard. Other countries like China, Turkey and several EU Member States with capacity for ship dismantling in dry docks, at piers and on hard slipways only account for a smaller fraction of the market as they are typically priced out of the market.

The possibility to change flag.

Every ship has to be registered under a flag. The flag state, as defined by the United Nations Convention on the Law of the Sea, has overall responsibility for the implementation and enforcement of international maritime regulations for all ships granted the right to fly its flag. Changing flag, which can be done with very limited effort in time and expenditure, allows the shipowners to change the legal regime for the ship.

The large majority of stakeholders (shipowners, Member States, environmental NGOs...) commented on the difficulty for enforcing legislation given the ease with which owners can change flags.

Change of flag prior to dismantling is already a reality since EU flagged ships represented 17,6 % of the active fleet but only 8 % of the ships at the time of dismantling in 2009 and 15,1 % in 2008. Certain flags offer specific short term/single voyage registration for around 10 000 dollars (for a Panamax ships this would represent 1 \$/LDT) which is a negligible cost compared with prices offered by the recycling facilities.

5.2 International and national policy approaches

The Hong Kong Convention was adopted in May 2009 but is not expected enter into force and to start producing effects before 2020. The Hong Kong Convention needs to be ratified by both major flag states and recycling states which will take longer.

The Hong Kong Convention requires ships flying the flag of a Party ("Party ships") to be dismantled only in authorized recycling facilities located in another Party to the Convention ("Party facilities"). Party facilities would be allow to treat also non-Party ships provided that they treat them similarly to Party ships (clause of "no more favourable treatment").

To be authorized, facilities will have to comply with the detailed requirements of the Convention regarding safety, the protection of human health and the environment and they will have to be subject to a site inspection from the authorities. The Hong Kong Convention does not contain requirements which would explicitly rule out the "beaching" method which has been controversial because of its environmental and health impacts. Ships will have to minimize and document (Inventory of Hazardous Materials) the amount of hazardous waste present on board. Based on this inventory and on its authorization, the ship recycling facility will develop a ship-specific document (Ship Recycling Plan) to describe how this particular ship will be dismantled and how the hazardous waste will be managed in the facility. The shipowner will have to inform in writing its flag state about the intention to recycle the ships and then to provide the Inventory of Hazardous Materials (IHM) and the Ship Recycling Plan (SRP) to its flag state. The latter will conduct a final survey on board the ship to verify that the IHM is complete, that the SRP properly reflect the IHM and about the maintenance of safe working conditions for workers and, finally, that the ship recycling facility is authorized. The ship recycling facility will inform its authorities of the start and the completion of the recycling. The authorities will inform back the flag state of the completion of the dismantling.

The Hong Kong Convention is adapted to the specificities of shipping since it relies on the system of international surveys and certification for ships during their life cycle, on port state controls. Moreover, it contains an obligation for shipowner to inform in writing and in advance their flag state of their intention to recycle their ships, thus resolving the current problem of identifying when a ship turns into waste.

Facilities located in Parties to the Hong Kong Convention will have to treat similarly ships flying the flag of Parties to the Convention and ship not flying the flat of Parties thus limiting the incentive of changing flags only in order to benefit from a more favourable legal regime. As long as the 5 major ship recycling states which represent more than 90 % of the dismantling activity are Parties to the Convention, there will be major improvements compared to the current situation. One possible problem would be faced if one or two recycling countries decides not to join the Hong Kong Convention. In this case, there will continue to be two markets competing which each other: one with substandard facilities offering better prices for shipowners and another one compliant with the Convention. And since changing flag is legal, easy and negligible, one can expect that some shipowners would continue to change flags in order to circumvent the legislation.

The main elements of the Hong Kong Convention entail the following administrative requirements:

For all ships

- (1) Establishing Inventory of Hazardous Materials (IHM)
- (2) Issuing and checking of certificates based on the IHM
- (3) Port state control of certificates for ships calling EU ports
- (4) Flag-state control for EU Member State flags

Preparation for recycling

- (5) Checking of IHM certificates for ships calling European ports.
- (6) Update of the IHM's
- (7) Issuing and checking of the Ready to recycle certificates
- (8) Issuing and checking of ship recycling plans from recycling facilities
- (9) Costs (loss of net revenue) for selling a ship for recycling at a facility with a certain minimum HSE standard

Recycling facilities

- (10) Preparation and issuing of ship recycling facility management plan and emergency preparedness and response plans for ship recycling facilities
- (11) Authorisation of ship recycling facilities

Assignment Late Payments in Poland

You are the IA working group and are you asked to develop the first steps of the IA.

Problem definition

1. What is/are the problem(s)?
2. What causes this problem?
3. What type of problem are we dealing with (market and/ or regulatory failure, discrepancy with fundamental goals)?

Consider using a **problem tree** to distinguish causes, effects and the central problem

4. Establish the basic elements of your baseline scenario
 - a. Developments
 - b. Stakeholders
 - c. Impacts

Objectives

5. What is the desired state of affairs? What does one seek to achieve?

Make sure that the objectives are directly related to the identified problems!

Policy Options

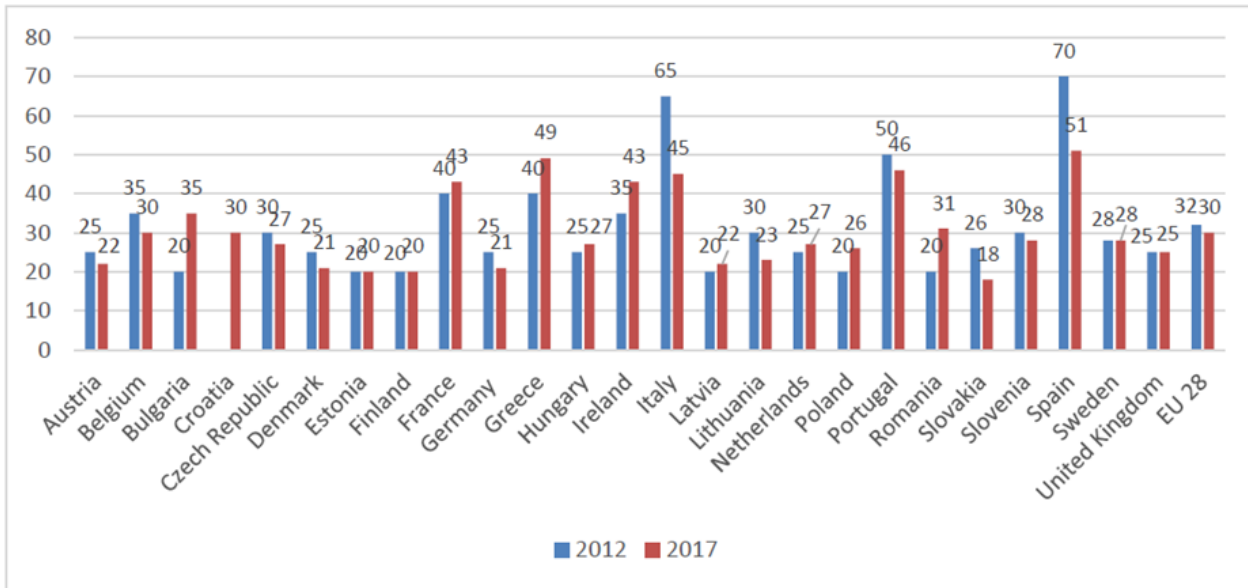
6. Define a broad list of possible policy options to tackle the problem.
-

EU law and late payment data in EU and Poland

Main provisions of the Directive 2011/7/EU on late payments

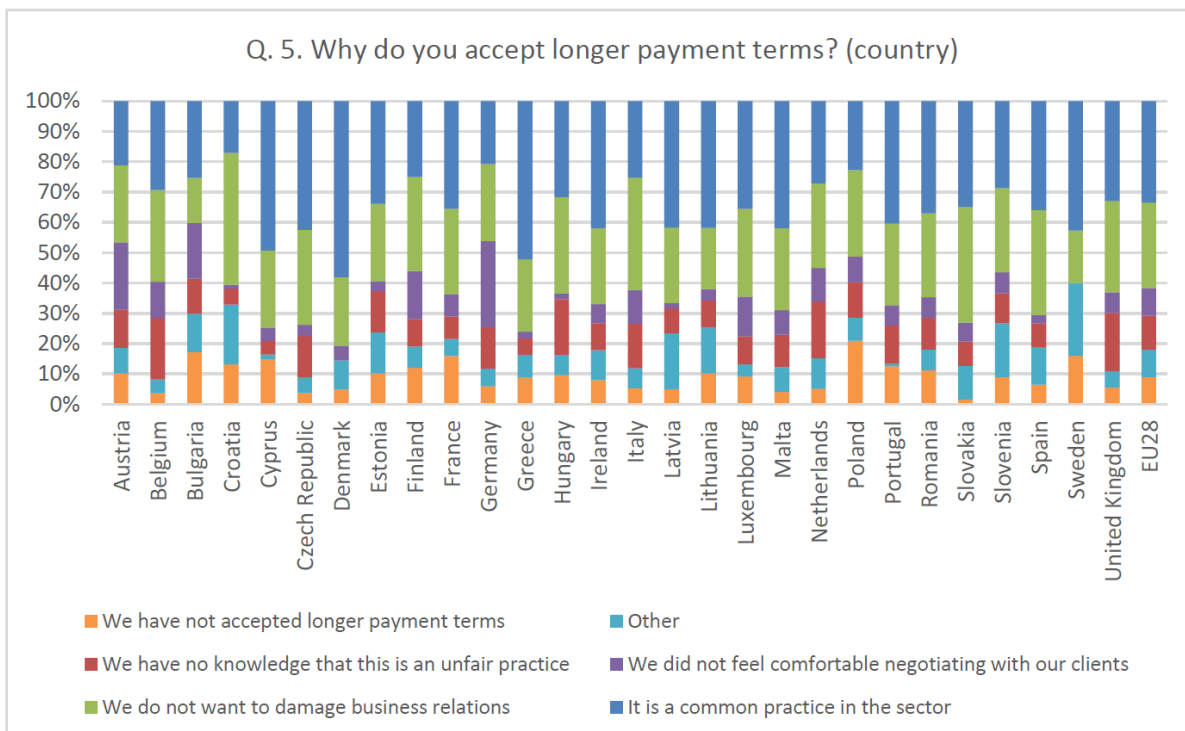
- **Public authorities** have to pay for the goods and services that they procure **within 30 days** or, in very exceptional circumstances, within 60 days.
- **Enterprises** have to pay their invoices **within 60 days**, unless they expressly agree otherwise and provided it is not grossly unfair.
- Automatic entitlement to **interest for late payment** and €40 minimum as **compensation for recovery costs**.
- **Statutory interest** of at least 8% above the European Central Bank's reference rate (**9.5% in PL**).
- EU countries may continue maintaining or bringing into force laws and regulations which are **more favourable to the creditor** than the provisions of the Directive.

Figure 1: Average payment terms in the EU-28 as creditor, 2012-2017



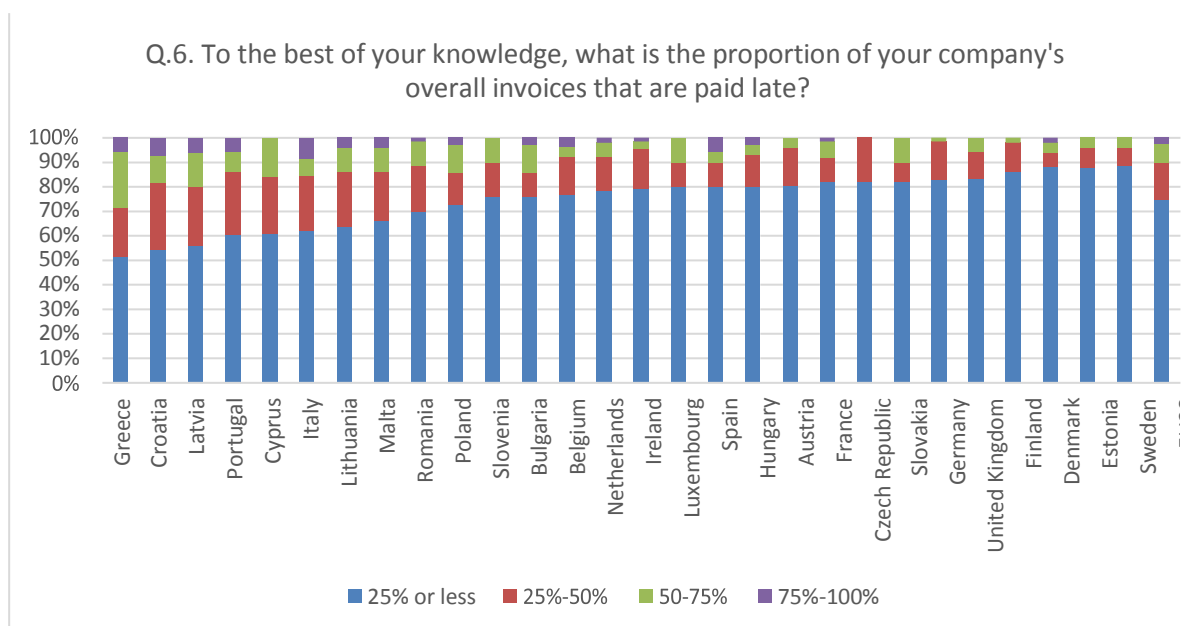
While improved payment terms in contracts across the EU demonstrate progress, many companies still report being given long payment terms. In 2017, 61% of companies reported that they have been asked for longer payment terms than they are comfortable with, and 58% of them indicated that they had accepted these demands. In Sweden, a government mapping of payment practices showed that since 2006, average payment terms have increased in all sectors, circulating around the EU average. In particular, the share of agreed payment terms of 60 days or more reached 4% of all invoices in 2016. It is possible that the Late Payments Directive (LPD) may have normalized payment terms of 60 days in countries with prompter payment traditions.

Companies accepting longer payment terms usually explain that it is a common practice in their sector (55%) and that they do not want to damage business relations (46%). To a lesser extent, some companies are not aware that it is an unfair practice or do not feel comfortable negotiating with their clients as shown in the figure below.



Across company sizes, SMEs are more likely to accept or be given longer payment terms by larger companies due to the imbalance of power and the fear of damaging business relations and losing a future contract. 25-50% of their invoices are paid late see figure 3 below.

Figure 3: Proportion of invoices paid late, as creditor



Source: CATI survey

Working capital management is a crucial factor in individual company performance. The use of trade credit (when a product or service is delivered today but paid for at a later stage) is widespread in Europe. As Paul and Boden find in their 2011 article on late payments in the UK, “*trade credit is a prominent part of the UK trading environment, where at least 80 per cent of business-to-business transactions are on credit*”. Furthermore, many Small and medium-sized enterprises (SMEs) are not able to pay their suppliers before they are paid by their customers, owing to liquidity constraints, and might thus end up paying late themselves. All these inconveniences lead to a chain reaction which by now is established as common practice and in some countries part of the business culture.

Given the importance of accounts receivable/payable for firm performance and the extensive use of trade credit, it is clear that late payment is a significant determinant of enterprise survival. Indeed, Wilson (2008) reports that working capital management and late payment problems are a primary cause of small business failure. This is because late payments negatively affect cash flow and add financial costs and uncertainty for creditors. The financial crisis has further constrained cash flow and thereby amplified the importance of prompt payment for a speedy economic recovery.

Moreover, SMEs are likely to be disproportionately affected by late payments because they may not have easy access to finance to cover any temporary shortfalls. Furthermore, such finance – where it is available – may be more expensive than for larger companies, and SMEs do not always have appropriate credit management systems for preventing or managing late payments.

Late payment imposed on businesses by public authorities can discourage participation in public procurement contracts, which in turn prevents public authorities from getting the best value for taxpayers’ money. From a social point of view, late payment increases uncertainty for many creditors and may impact employment strategies. For example, in Germany, 35% of companies indicated that late payment had a strong impact on the need to lay people off (similarly in the UK (30%), in Spain (28%) and in France (25%)). On average 40% of European business managers said late payment contributed to them not hiring, while one out of four European companies said the consequences of late payment included job cuts.

Late payment creates additional or administrative costs as companies invest resources into chasing late payers or they pay interest on the credit contracted to continue business operations. Once they

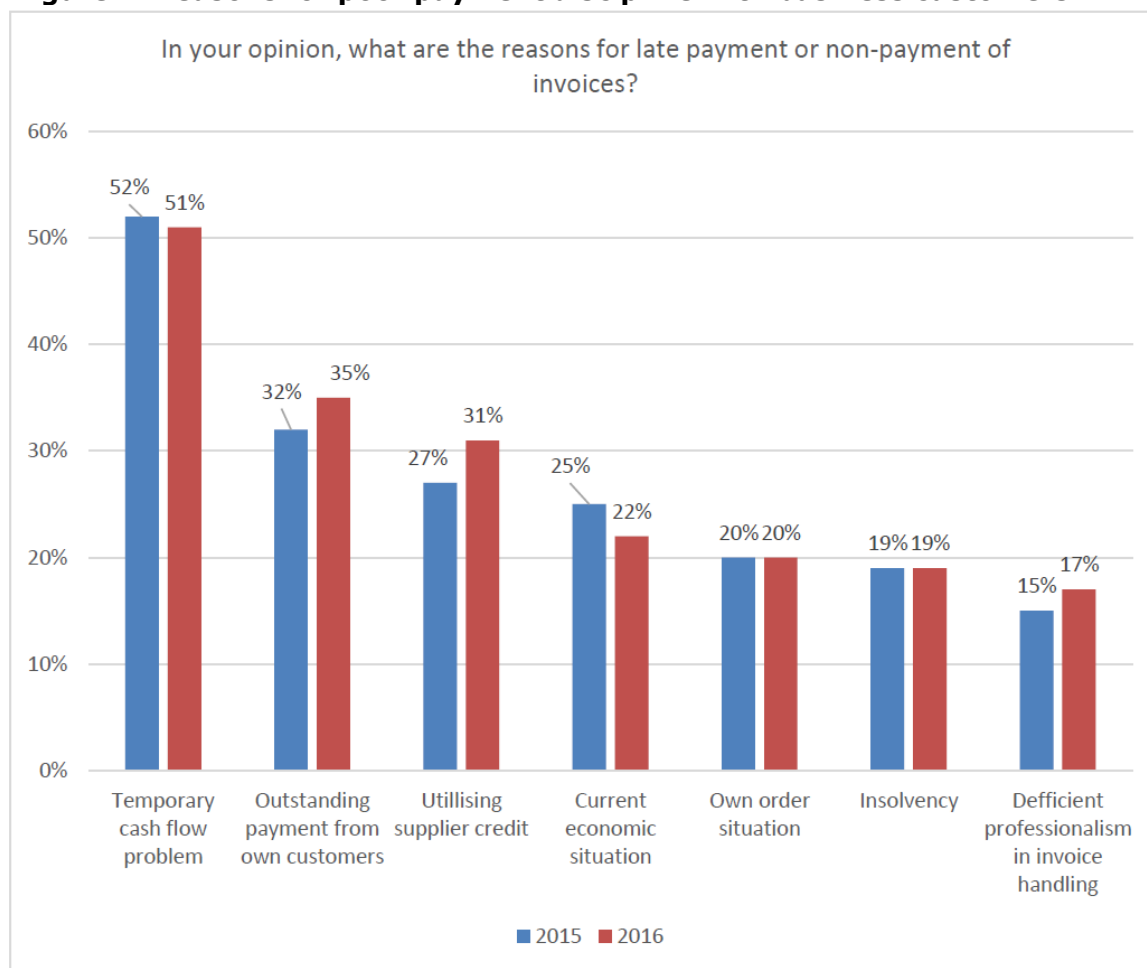
experience a late payment, small businesses are reluctant to make use of the instruments they have at disposal to access their money due to fear of harming the relations with the distributors. Besides the fear factor, it is very costly to hire a lawyer or a debt agency to chase the debt, and the few companies who actually engage in such activities experience both worsened relationship and a gap in the budget. Also going to court is time consuming and the outcome is often unpredictable. In the current state of play, the legislation does not favor the small debtors in enforcing their rights as creditors. Alongside the monetary costs of enforcing their rights, the overall burden should be considered. Resolving the issue through courts is time consuming. Whereas in large firms there are departments dedicated to dealing with legal issues, small companies need to delegate employees that would otherwise work on other issues, postponing thus their own task and curtailing the company's productivity. A report from the World Bank estimated that cases are solved through legal proceedings last an average of 512 compared to 7-30 days for cases resolved through alternative dispute resolution.¹

In the UK, a report by the Federation for Small Businesses (FSB) indicated that the cost of chasing late payment amounts to 2,100 EUR per year per SME, for an aggregate cost of about 11 billion EUR (8 billion GBP).

Late payments may also have a negative impact on the functioning of the internal market and cross-border trade. Many businesses consider cross-border trade with businesses or public authorities from other Member States riskier in terms of the frequency of late payments and the uncertainty on how to deal with late payers. As a consequence, companies may refrain from cross-border trade to the detriment of the functioning of the internal market.

Problems can be further convoluted because certain national tax regimes (including Poland) enable debtors to exclude outstanding payments from their tax declaration, whereas creditors are required to include the outstanding receivables in their taxable profit base.

Figure 4: Reasons for poor payment discipline with business customers



¹ Doing business 2016 Poland. A World Bank Group Flagship Report

However, as industry stakeholders noted in the figure above, **there is a large number of reasons why companies struggle with cash-flow**, including the economic recovery, availability of trade credit and poor internal credit control.

Poor access to credit can have a direct bearing on company liquidity. Access to finance is important, especially for SMEs, for which credit is most limited and expensive. The issue of insufficient availability of funds is most problematic in Southern and Central Europe, with around 50% of companies or more reporting that it is a reason for payment delay.

The **prevailing business culture** is a key explanatory factor for the differences in late payments across countries. Intentional non-payment is common in B2B transactions and is still exercised in 1/5 of the companies in EU. Especially in southern countries late payments can be perceived as standard business behavior.

Bad invoice management can result in additional delays and affects mostly SMEs as they have fewer resources to deal with their invoices. Indeed, the lack of a professional invoice handling mechanism can lead to administrative inefficiencies and errors. In addition, as noted by interviewees, verbal agreements are still common, for instance, in the agriculture sector. These can lead to misunderstandings, including disputes on payment terms, and prevents the use of remedial actions.

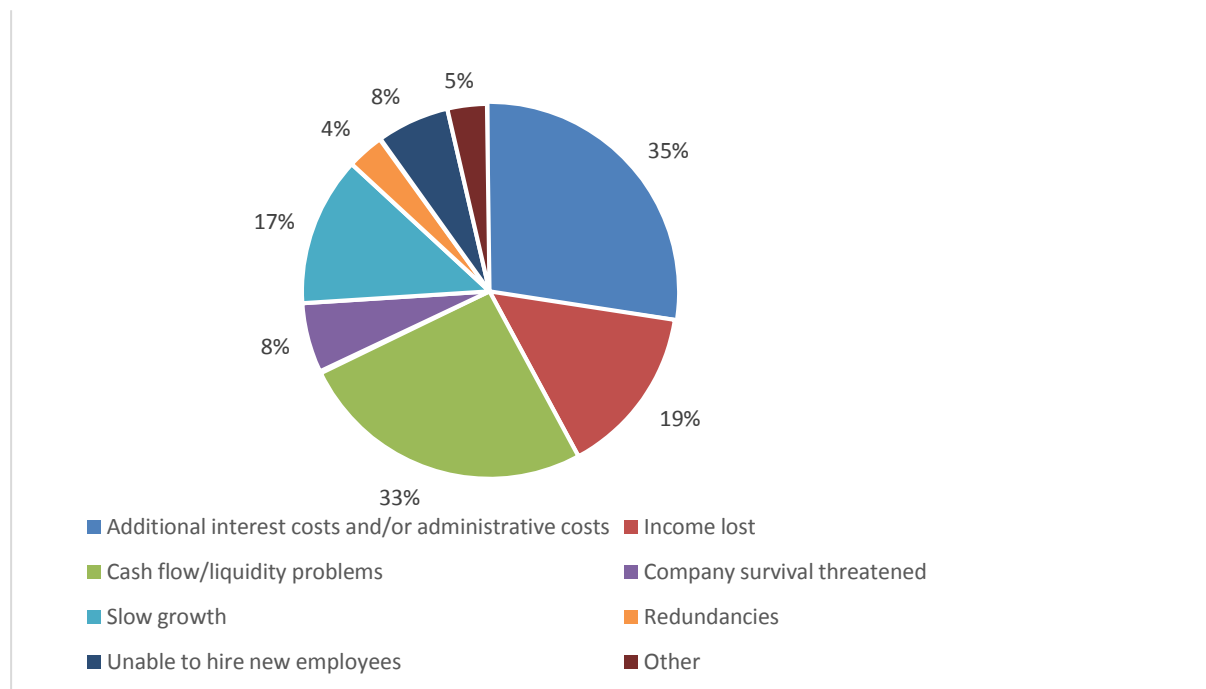
Moreover, **the use of outstanding debts or invoices as a form of financing by the debtor should be factored into the understanding of causes of late payment.** Across all sectors around 30% of companies perceive intentional delay to be causing payment delays.

Across sectors, the structure of the market and of the supply chain can reinforce unfair payment practices. The unbalanced relationship between partners can create a dominant position for large companies to impose unfair practices on smaller suppliers such as long payment terms and systematic late payment. According to interviewed stakeholders and the CATI survey, **the imbalance of power and size between companies is considered an important cause for late payment.** Interviewees suggested that because companies are afraid of damaging business relations and subsequently losing future contracts, it is common for SMEs not to seek remedies in case of payment delay from a larger client (such as those stemming from the LPD or other remedial action such as the use of mediation). In the long term, large companies may exploit the weaker position of smaller suppliers and pay them last leading to systematic late payment. Over 60% of CATI respondents indicated that these were the main reasons for late payment for business and professional services and in the construction, retail and wholesale and manufacturing sector.

Finally, the structure of the supply chain can also lead to late payment, where small suppliers at the end of the chain get paid later because of the accumulation of delays earlier in the chain. This was highlighted by more than half of the companies from the food and drink sector in the CATI survey (see figure above) and by interviewees from the construction sector.

The results of the CATI survey indicate that for over 30% of respondents, late payment creates additional interest or administrative costs, or it leads to cash-flow issues as shown in the figure below. Pan-European research, however, shows that the impact of late payment has slightly decreased in recent years as fewer companies consider it a threat to their survival (27% in 2017 against 33% in 2016). Companies are also becoming more optimistic about the prospects of being able to conduct their business without risking cash-flow, liquidity and growth issues as a consequence of their customers' inability or unwillingness to pay on time.

Figure 5: Impact of late payment on companies



Source: CATI survey

Late payment can also result in income loss, which has wider consequences for the economy as it prevents companies from investing and growing. Income loss impacts primarily the countries most affected by late payment, namely Southern European countries. In Spain, financial costs due to late payments increased by 8% between 2016 and 2017 to reach 980 million EUR.

Slow growth and the inability to hire new employees are late payment impacts which have direct consequences on the national GDP and employment. Pan- European research shows that 6.5 million jobs could have been created if there was less late payment in 2017 (8 million in 2016). Micro and small businesses are less likely to increase the size of their workforce or their capital expenditure when faced with late payment.

EPR 2017 IN BRIEF

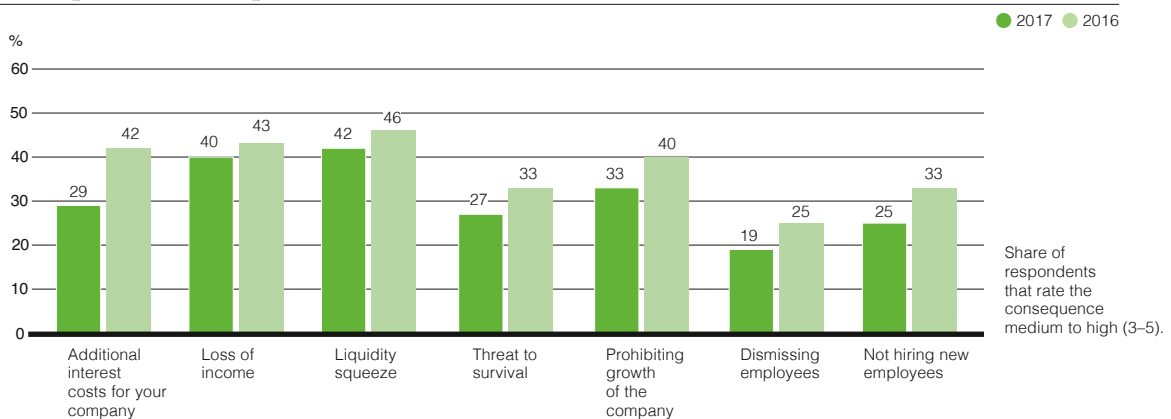
The world economy is improving and the fuel that the central banks have provided the European economies may now, after more than two years of record low interest rates, be bearing fruit. Although a surprisingly high share (81 percent) of the 10,468 companies taking part of the survey of the 2017 European Payment Report claims to see no change in their will to invest in their business following the highly reduced price on capital, 13 percent actually say that the low interest rates have increased their investments. This is the highest number measured in our survey since the central banks started their low interest route a little more than two years ago.

Another indicator in this year's survey is the decline in

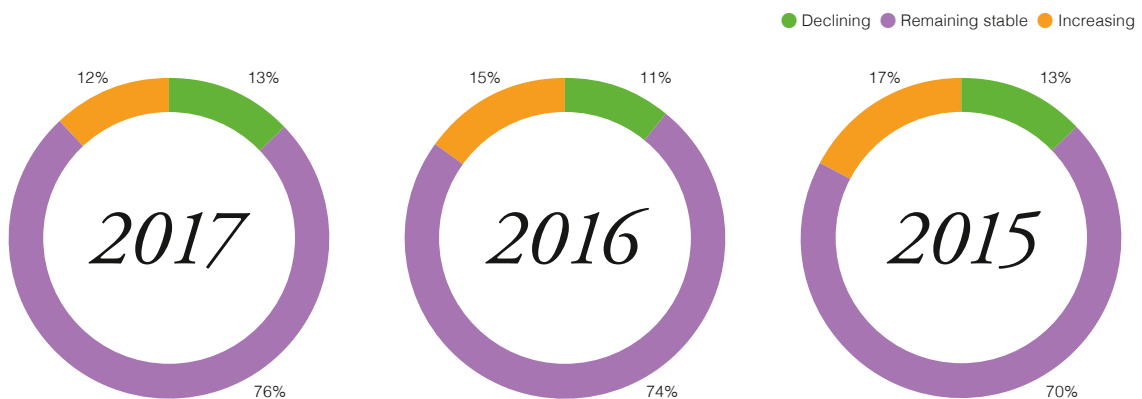
levels of bad debt losses that are still seen in many countries. The average European bad debt loss, i.e. how large share of the yearly revenue that had to be written off due to non-payment, has declined from 2.4 percent in 2016 to 2.1 percent in 2017.

The EPR 2017 indicates a trend shift in the negative development among European companies when it comes to their ability to control cash flows and liquidity. Although many companies still experience late payments and long payment terms as a threat to their ability to hire, expand and invest in their businesses, the severe impacts seem to have reduced somewhat.

Consequences of late payments



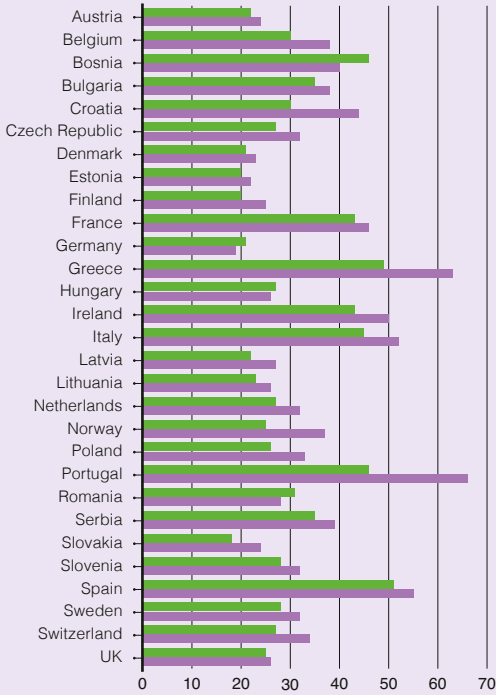
How do you see risks from your company's debtors developing during the next 12 months?



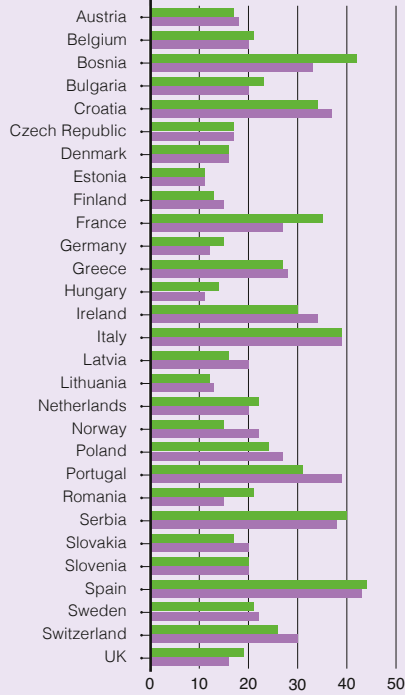
PAYMENT BEHAVIOR

Average payment terms and the time customers actually take to pay in days.

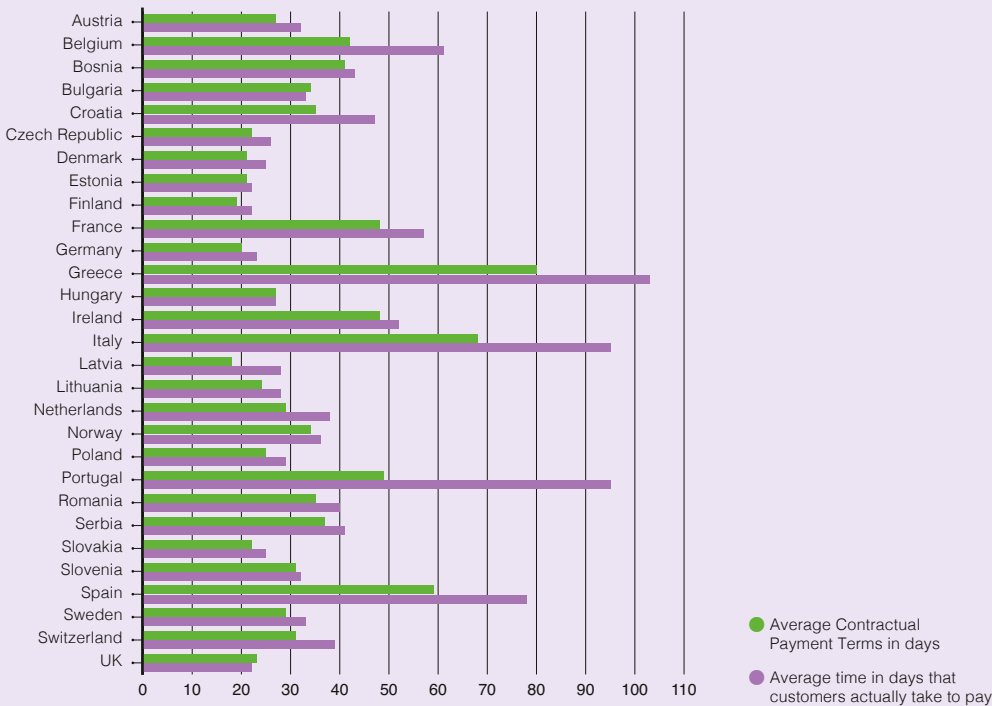
B2B



B2C



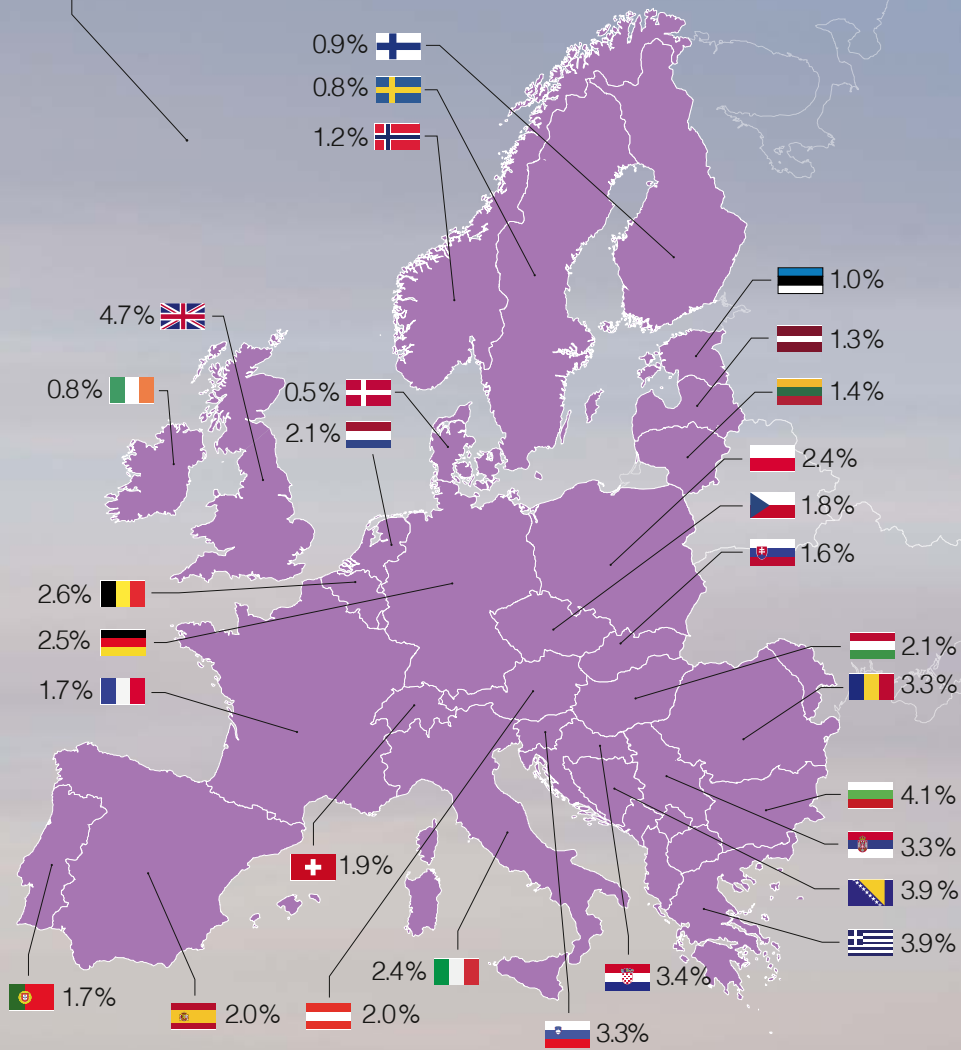
Public Sector



YEARLY REVENUES WRITTEN OFF

Percentage of yearly revenues that have to be written off.

Europe in total 2.1%





KEY FINDINGS

Little knowledge of the European Late Payment Directive

The general level of knowledge regarding the European Late Payment Directive is very low in Poland. Only 8 percent of the businesses answer that they are aware of it, compared to the European average of 31 percent.

But relatively high knowledge about national regulations

63 percent of the Polish businesses in the report state that they are aware of national regulations regarding late or non-payments, slightly higher share than the European average (57 percent).

Legislation over voluntary initiatives

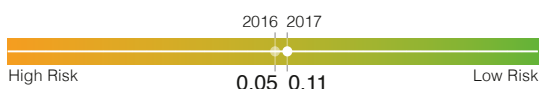
The Polish businesses would rather see new legislation nationally in order to solve issues with late payments. 42 percent prefer this, over 17 percent who prefer voluntary initiatives from corporations. However, 79 percent of the Polish businesses in the report state that current laws and regulations make it harder to run a successful business in Poland. In Europe as a whole only 61 percent give this response.



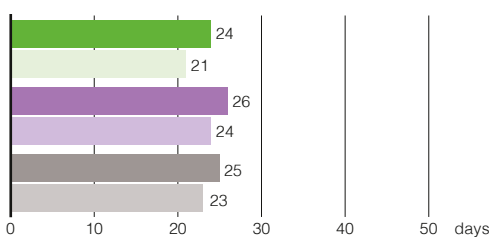
Economic development		Average EU
GDP per capita in euro	11,000 (e)	29,000
GDP percentage growth	2.8	1.9
Inflation	-0.2	0.3
Unemployment rate	6.2	8.5

(e) Estimated

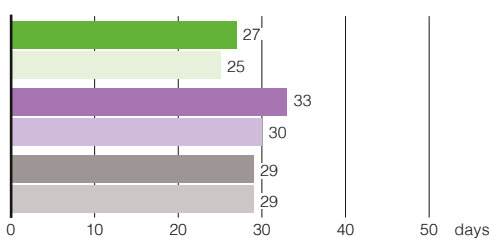
Payment Index (Risk index)



What payment terms do you allow your customers, on average?

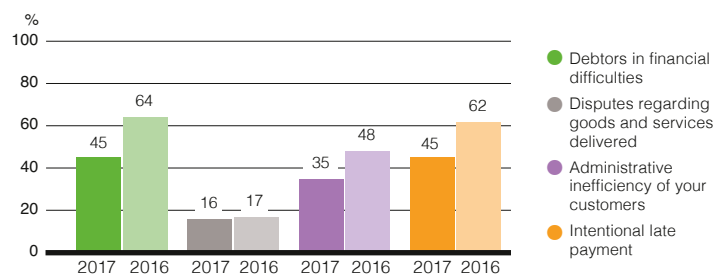


What is the average time actually taken by customers to pay?

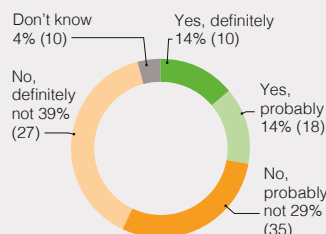


● B2C 2017 ● B2B 2017 ● Public Sector 2017
● B2C 2016 ● B2B 2016 ● Public Sector 2016

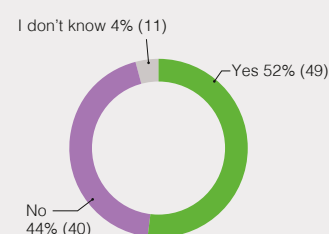
What are the main causes of late payment of your own customers?



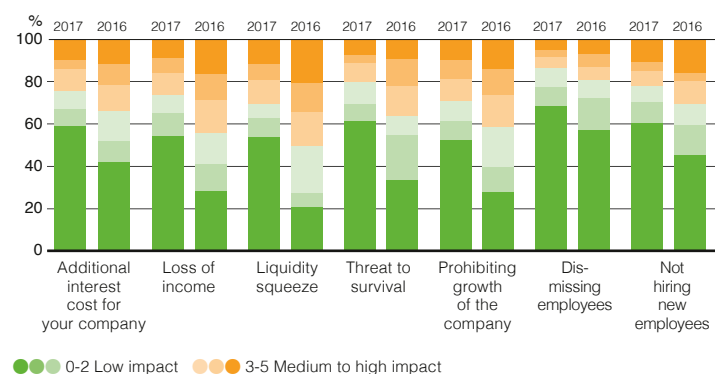
Would faster payments from your debtors enable your company to hire more employees (versus last year)?



Have you been asked to accept longer payment terms than you feel comfortable with (versus last year)?



On a scale of 0 to 5 how do you rate the consequences of late payments for your company with regard to:



● 0-2 Low impact ● 3-5 Medium to high impact



EU directives and Impact Assessments

Single Use Plastics (SUPs)



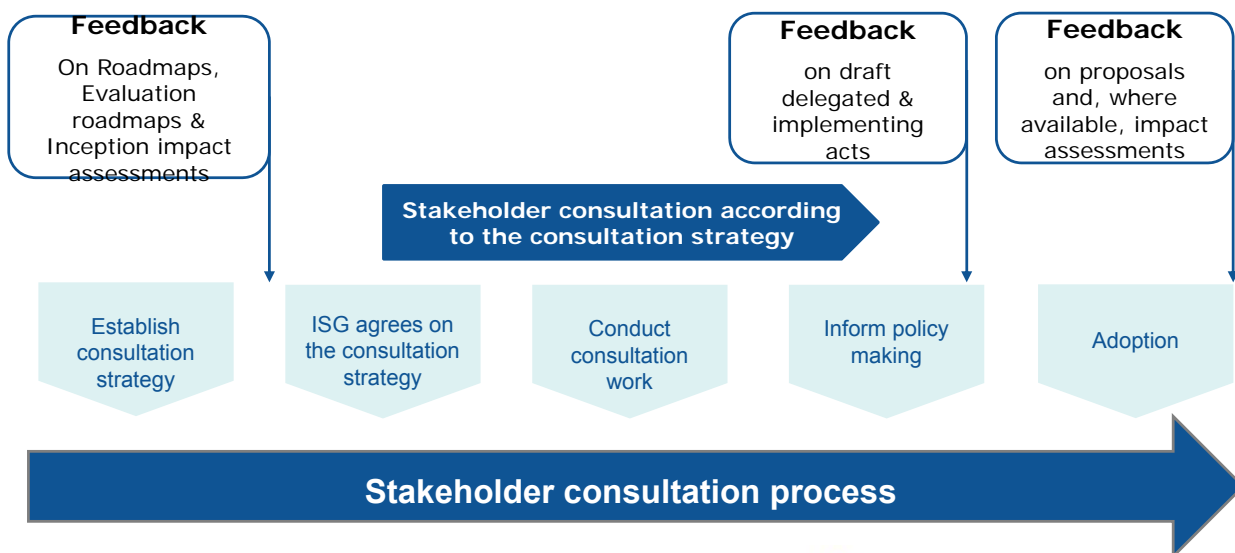
Strasbourg, 25.10.2016
COM(2016) 710 final

Commission Work Programme 2017

Delivering a Europe that protects, empowers and defends

{SWD(2016) 400 final}

N°	Title	Description ¹
A New Boost for Jobs, Growth and Investment		
1.	Youth initiative	The initiative includes a proposal for the creation of a European Solidarity Corps (legislative/ non-legislative) and priority measures to implement the youth aspects of the Skills Agenda, including a quality framework for apprenticeships and a proposal on increased mobility for apprentices (legislative); modernising school and higher education (non-legislative; Q2/2017); as well as a proposal for improved tracking of outcomes for graduates but also young people who have followed vocational education and training (non-legislative; Q3/2017).
2.	Implementation of the Action Plan on Circular Economy	This includes a strategy on plastics use, reuse and recycling (non-legislative; Q4/2017); measures on water: a proposal for a Regulation on minimum quality requirements for reused water (incl. impact assessment; Art. 192 TFEU; Q2/2017); a REEU revision of the Drinking Water Directive (incl. impact assessment; Art. 192(1) TFEU; Q4/2017); an initiative to address legal, technical or practical bottlenecks at the interface of chemical, product and waste legislation (non-legislative; Q4/2017); and a monitoring framework for the circular economy (non-legislative; Q3/2017).
3.	Financial framework beyond 2020	A comprehensive proposal for the next Multi-annual Financial Framework, including on own resources (legislative/ non-legislative; Art. 312 TFEU).
A Connected Digital Single Market		
4.	Implementation of the Digital Single Market Strategy	Mid-term review of the implementation of the Digital Single Market Strategy.



Ref. Ares(2017)6169607 - 15/12/2017

INCEPTION IMPACT ASSESSMENT	
Inception Impact Assessments aim to inform citizens and stakeholders about the Commission's plans in order to allow them to provide feedback on the intended initiative and to participate effectively in future consultation activities. Citizens and stakeholders are in particular invited to provide views on the Commission's understanding of the problem and possible solutions and to make available any relevant information that they may have, including on possible impacts of the different options.	
TITLE OF THE INITIATIVE	Reducing marine litter: action on single use plastics and fishing gear
LEAD DG (RESPONSIBLE UNIT)	DG ENV/MARE
LIKELY TYPE OF INITIATIVE	Legislative
INDICATIVE PLANNING	Q2 2018
ADDITIONAL INFORMATION	http://ec.europa.eu/environment/circular-economy/index_en.htm http://ec.europa.eu/environment/waste/plastic_waste.htm

3



SUPs Stakeholder consultation

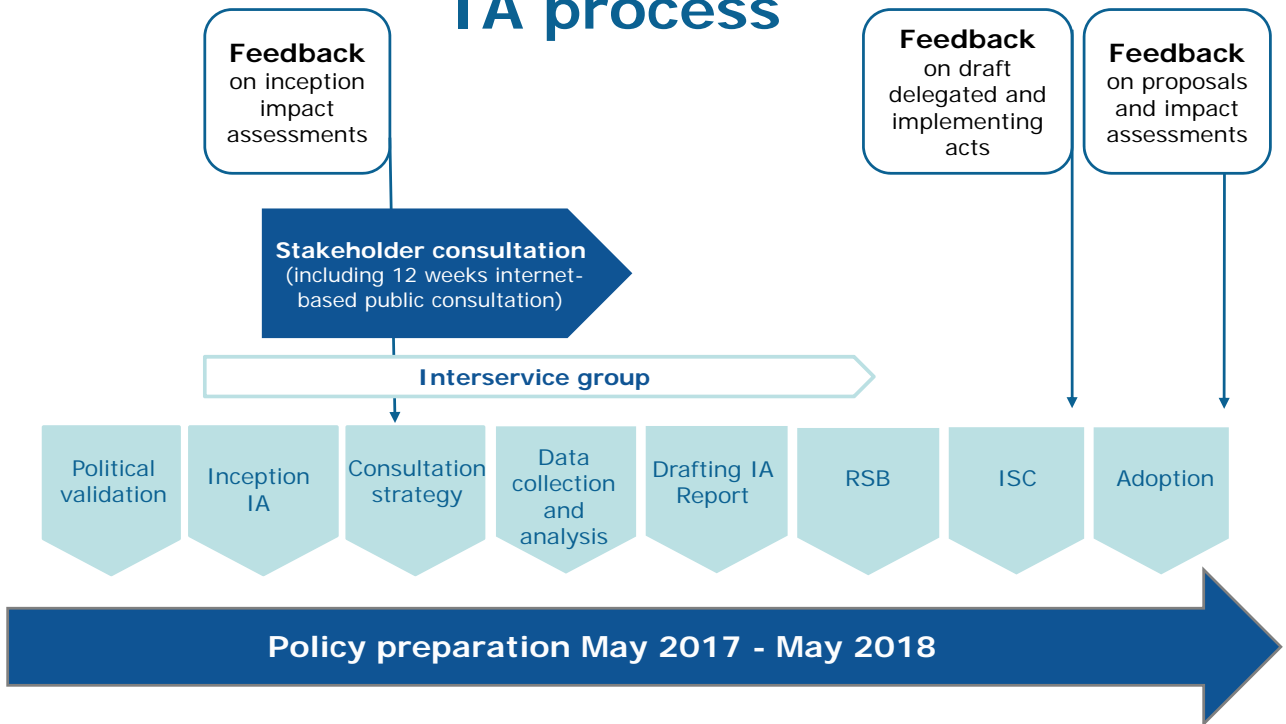
15 December 2017 – 12 February 2018

- **1807** responses to the **online survey**

- Two stakeholder workshops on SUP on 16 June and 14 September 2017;
- Inception Impact Assessment open consultation/feedback;
- Interviews/ad hoc consultation with stakeholders;
- Special Eurobarometer 468 (EC, 2017) and Flash Eurobarometer 388 (EC, 2014);
- The Online Public Consultation (OPC) on 'Reducing marine litter: action on single-use plastics and fishing gear' from 15 December 2017 to 12 February 2018;
- The Reinventing Plastics Stakeholder Conference held on 26 September 2017, with a specific session on marine litter and single-use plastics;
- The 2018 Circular Economy Stakeholder Platform Conference on 20 February, which included a session on marine litter.

4

IA process



5



Dead Northern Fulmar on the beach.



Balloons remains from a fulmar stomach

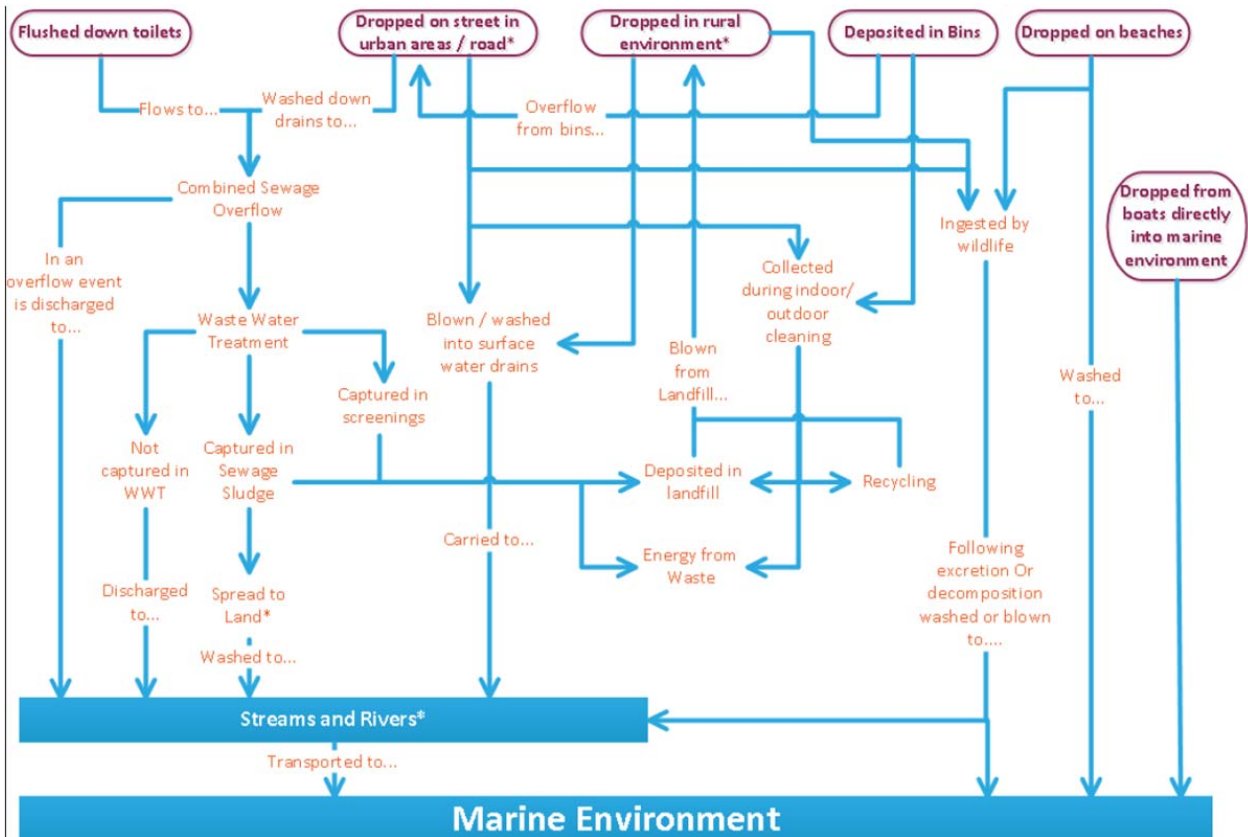
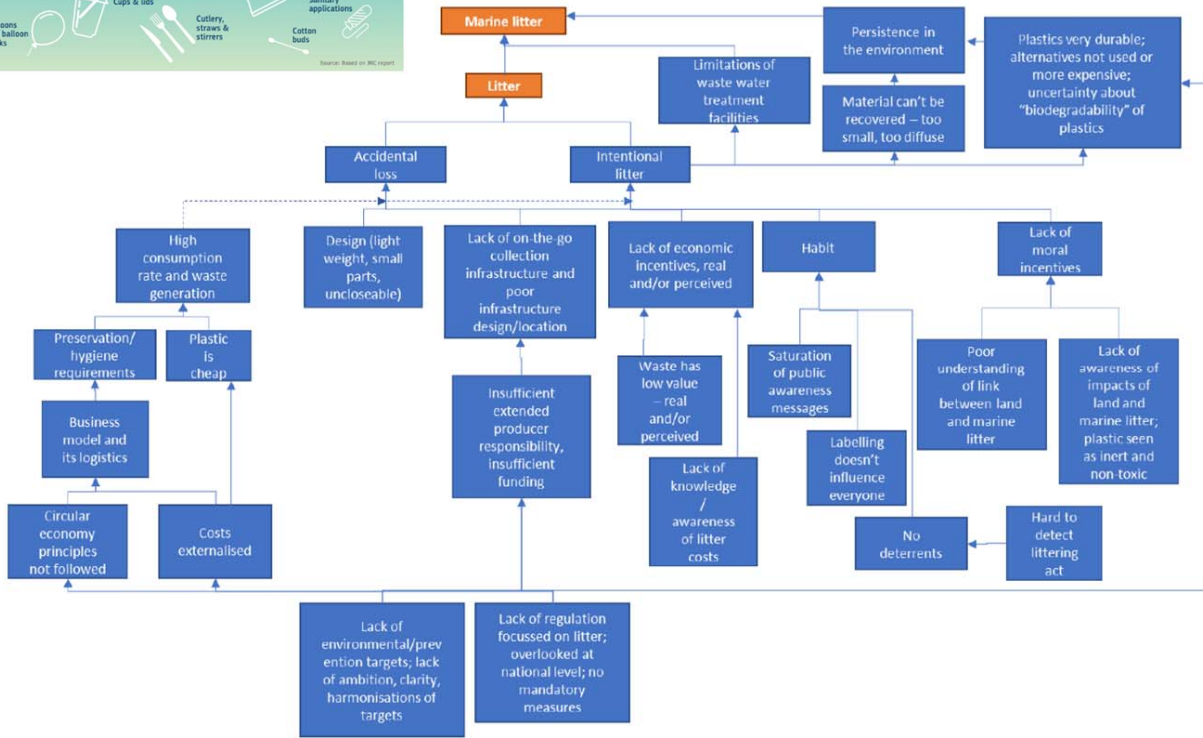


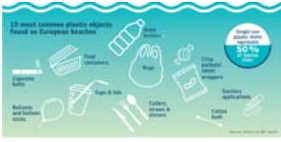
An ± average stomach content



An extreme stomach content

6





Problem	Description
Consumers flushed items down the toilet / lack of awareness	<ul style="list-style-type: none"> ■ Information campaigns ■ Mandatory labelling to discourage littering ■ EPR for flushed items
Consumers drop litter / lack of awareness / lack of on-the-go collection infrastructure	<ul style="list-style-type: none"> ■ Information campaigns ■ Mandatory labelling to discourage littering ■ EPR – full cost coverage of litter collections ■ Implement DRS for beverage containers
Lack of economic incentives	<ul style="list-style-type: none"> ■ Consumption levies
High consumption rate	<ul style="list-style-type: none"> ■ Specified sales restrictions ■ Measures for adoption by public authorities, including Green Public Procurement (GPP) ■ Reduction targets (SUP) ■ Reduction targets (all SU) ■ Ban (of SUP items)
Poor design	<ul style="list-style-type: none"> ■ Specific Requirements on Product Design
Flushed items escape through Combined Sewer Overflows (CSOs) / limitations of WWTW	<ul style="list-style-type: none"> ■ Setting enhanced technical standards for WWTW⁶⁶ and CSOs⁶⁷
All	<ul style="list-style-type: none"> ■ Voluntary agreements, voluntary commitments and pledges

Pre-proposal

- Pro-active approach as of Work Programme inclusion
 - Participation in feedback and consultations
 - National stakeholder consultation
 - Mobilize information on existing situation in MS
- Consider a Preliminary IA (PIA)
 - Legal analysis: identification relevant national norms and provisions
 - Do the EU objectives match MS objectives?
 - Identify MS stakeholders
 - Is the existing MS situation efficient, effective, are there problems and/or improvements to be made?
 - => these insights can be good base for input in EU consultations

Post-proposal

1. Analysis of the Commission IA:
 - Objectives, foreseen impacts, intervention logic and subsidiarity motivation
2. Screening of the complete proposal per article:
 - Identification of operative articles requiring transposition
 - Determination of MS position at article level
 - Identification of the articles with the main impacts for further MS investigation
3. In-depth IA:
 - 1st option=> the existing situation as described in PIA
 - 2nd option=> the article and its impacts as proposed EC
 - 3rd option=> the preferred option for MS with impacts



Post-adoption

- **screening of the directive at article-level**
 - *affected national measures and instruments*
 - *actions to be undertaken*
 - *scope of choice – what is still open to national choice and discretion*
- **affected stakeholders**
 - *business, citizens, public authorities*
- **objectives EU and national**
- **options in view of scope for choice**
 - *minimal transposition (cut-and-paste)*
 - *higher standards*
 - *exemptions, derogations, transition periods*
 - *instrument choice*



Post-adoption

■ impacts

- *implementation modalities and enforcement*
- *legal adjustments: add-on/amendments – new regime with repeals*
- *need for supporting measures (eg. guidance)*
- *public finance: expenditure/revenue*
- *compliance costs/benefits*
- *administrative costs/benefits*
- *risks effectiveness/efficiency*
- *economic, social and environmental impacts (MS)*

■ comparison of options

- *minimal transposition*
- *elements of choice and/or higher standards*



General suggestions

Participate in the EU policy preparation

- *Monitor other consultations => develop own vision and share on other fora*
- *Any information on execution/implementation has significant value to EC*
- *Also information on “national stakeholders” (results national consultations) offers added value for EC*

The MS IA preparatory work can help:

- *attachés to understand and substantiate MS positions in Council deliberations*
- *to deal with the short response time to Presidency texts*
- *facilitates the transposition work and obstacles (cfr. infringements)*



General suggestions

Invest in the development of a **sound evidence-base** for RIA

- *Implementation reports, data send to EC, academic work, consultancies, thematic networks, study departments within ministries*
- *A lot of information and expertise was MS-based*

IA work and determining positions is **teamwork**:

- *Not only legal analysis but socio-economic aspects*
- *Exchange of perceptions/assumptions/ideas*
- *Include implementation & enforcement perspectives*
- *Early planning*

Confront the **EC** with its own BR principles

- *“Evaluate first”, subsidiarity & proportionality, RSB, implementation plan*



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SUP exercise

- Is there room for choice?
- What type of impacts?
- Who are the affected stakeholders?
- Do you see costs/benefits?
 - Substantial compliance costs/benefits
 - Information obligations and costs/benefits?
 - Monitoring, reporting costs/benefits
 - Enforcement costs/benefits
- Is there merit in doing a RIA on the SUP transposition for Poland?



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Day 2



Administrative Burden (AB) and the Standard Cost Model (SCM)



Patrick van der Poll

26 Februari 2019

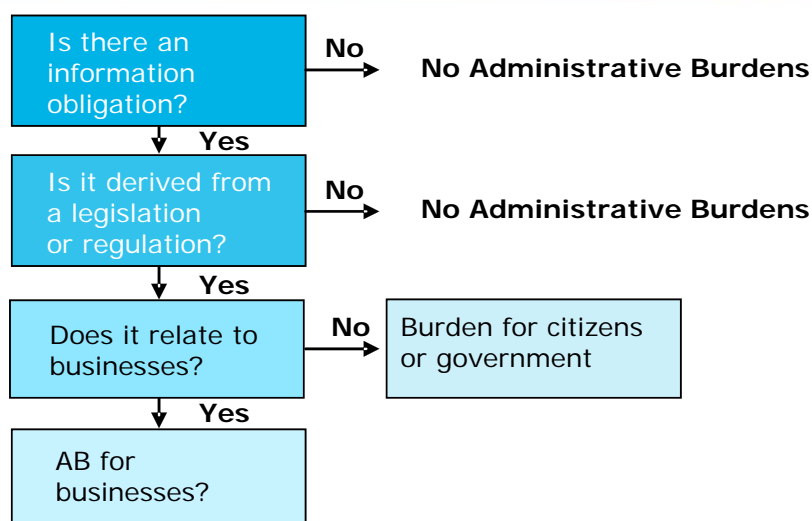
Basic principles of calculating Administrative Burdens

1. What are Administrative Burdens?
2. How to calculate AB?
3. Assignment 1

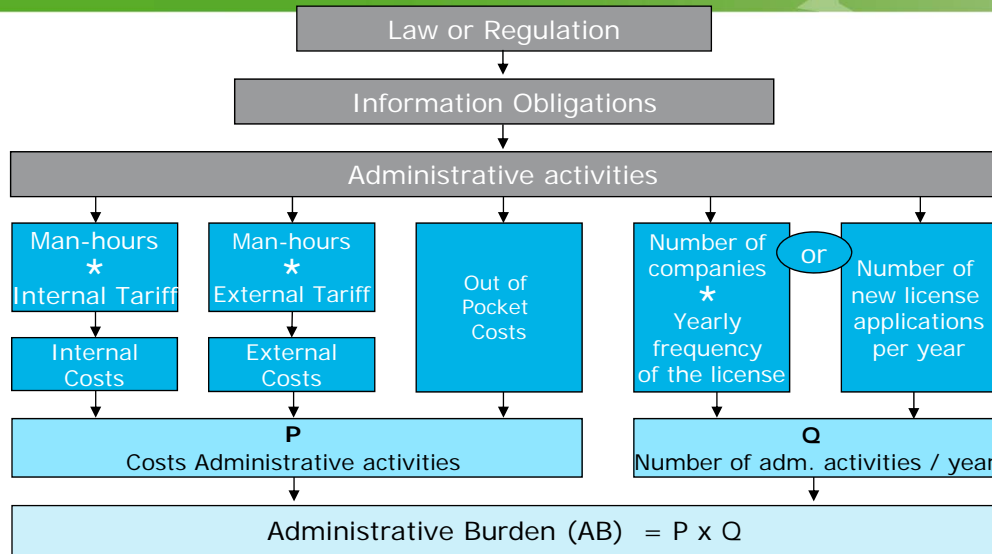
1. What are Administrative Burdens (AB)?

- AB are the costs for citizens and businesses which result from complying with Information Obligations laid down in government regulations.
 - Complying with these obligations means that Administrative Activities have to be carried out, such as collecting, processing, registering, archiving and delivering information.
 - These Administrative Activities are carried out by citizens, employees of companies and by hired professionals.
 - The sum of these costs are the Administrative Burdens.

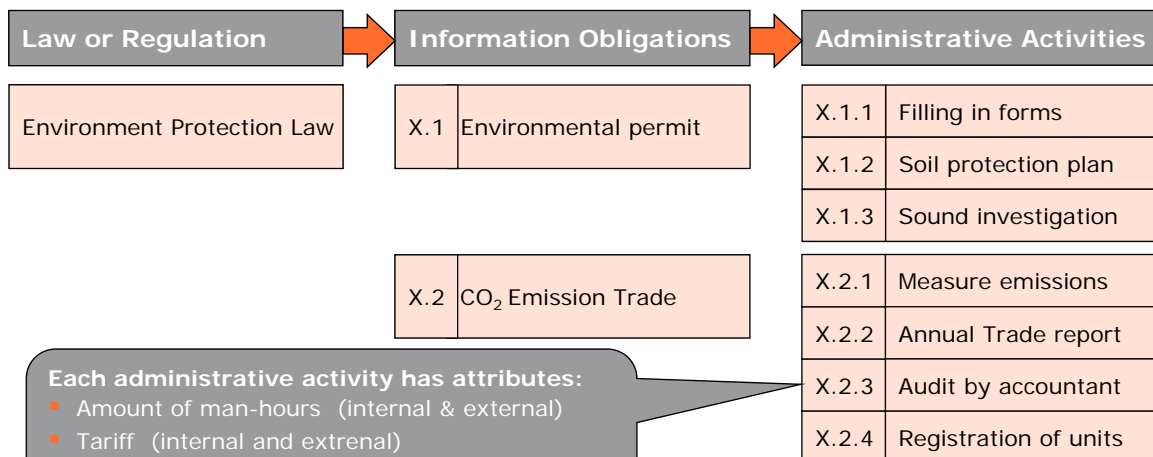
Identifying information obligations



The Standard Cost Model (SCM)



2. How to calculate AB?



Each administrative activity has attributes:

- Amount of man-hours (internal & external)
- Tariff (internal and external)
- Out of Pocket Costs
- Number of occurrences per year

Standard administrative activities

- The same administrative activities are required often by different IO's.
- For these standard activities fixed times and costs have been determined using panels with Polish businesses and international data.
- Using standard activities decreases the information needed to quantify the AB and simplifies the measurement.
- Not all administrative activities have standard times.

Assignment 1: Investigate the information obligations

- Goal: find the information obligations (IO) and collect data to fill the SCM.
- Add in the SCM:
 - Describe the information obligation
 - Describe the administrative activities using standards:
 - Use the list of standard activities.
 - Assume all activities can be done online.
 - Also think what practical steps need to be done that are not mentioned in the text.
- To do this:
 - Use the provided text and SCM-template
 - You have 15 minutes to complete the assignment

Assignment 1: Answer (1/2) - IO

- Information obligation: a permit to remove trees or shrubs (art. 83)
- Not an information obligation:
 - Costs of (re)planting (art. 83.3): Substantive compliance costs for the business
 - Fees for the permit (art. 84): financial cost for the business
 - Indexation of the fees (art. 85.7): cost for the government
 - Annual notice (art. 85.8): cost for the government

Assignment 1: Answer (2/2) - activities

- Information obligation: Applying for a permit to remove trees
- Administrative activities:
 - Get a form from a website*
 - Provide information to the competent authority (fill in the form):
 - Fill in name and address.
 - Make copy or scan document: legal document of ownership.
 - Fill in subject of application (simple): species, destination, reason, area size.
 - Fill in subject of application (complex): measuring perimeter
 - Digitally submit a form*
 - Paying a fee for an application*

*Administrative activities not mentioned literally in the law text



Details of information obligations

1. Definition in detail
2. Types of information obligations
3. Administrative costs vs burden
4. Origin of the AB
5. Assignment 2



Definition of Information Obligation in detail

- Structural costs:
 - These are the annually reoccurring costs. This means that businesses and citizens have to make these costs every year.
 - Example: Filling in a Tax-form once a year.
- One-off-costs:
 - These are the costs that businesses must invest only once to satisfy an information obligation when legislation new or amended.
 - Example: Adapting software to make the reports that the government demands.

Definition of Information Obligation in detail

- Self-regulation:
 - Through self regulation businesses can also be confronted with information obligations. In this case these obligations are not part of the AB, because these obligations are not derived from regulations. But if the government decides to prescribe these agreements by law, it will become AB for these businesses.
 - Example: Certifications like ISO 9001.

Definition of Information Obligation in detail

- Voluntariness
 - In determining information obligations voluntariness is not an issue. Whenever a business or civilian is confronted with costs for supplying information as a result of legislation or regulation, these costs are deemed to be AB.
 - Example: the application for a permit or subsidy is voluntary, but in doing so the business or citizen is obliged to provide information to the government. The applicant has to follow obligations regarding the information needed to get to permit of subsidy.

Definition of Information Obligation in detail

- Lost Turnover
 - In measuring the AB the turnover lost by businesses is not taken into account. Only the costs that have actually been made are part of the AB
 - Example: Waiting time for a test or permit is not part of the AB.
- Information to third parties
 - Not all information has to send directly to the government. Some information has to be kept for inspection. Obligations to provide information to third parties, for example on labels, does not have to be kept for inspection.
 - All obligations to provide information, also to third parties, are part of the AB.

Definition of Information Obligation in detail

- Full compliance:
 - For measuring AB it is assumed that all businesses and citizens comply fully with the information obligations. Even though in practice the compliance will not be 100%.
 - Example: the calculated AB assumes that all business and citizens fill in the Tax-form. Even if they do not.
 - Actual compliance will be measured if no other data is available. For instance the amount of building permits applied for per year.

Types of information obligations

1. Applying for permit or exemption
2. Certification
3. Registration
4. Notification
5. Reporting
6. Informing third parties
7. Applying for public aid
8. Inspections
9. Mandatory surveys

Administrative Costs vs. Administrative Burden

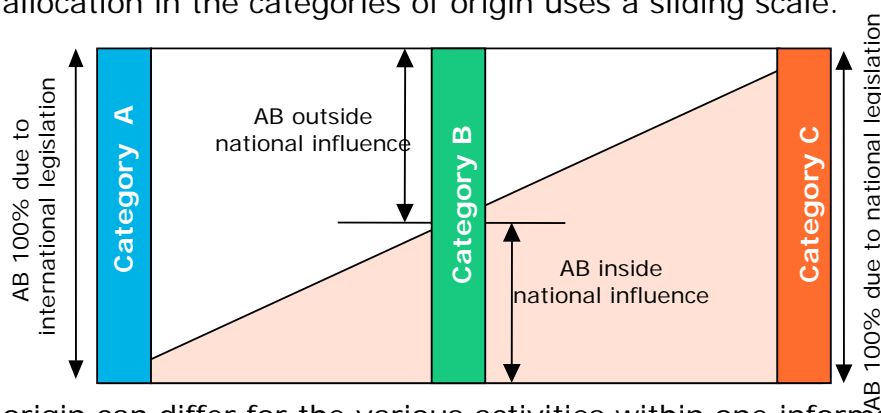
- The administrative activities for some information obligations would also be carried out even without laws and regulations.
- The Administrative Burden is the part of the Administrative Costs that businesses would not do without regulation.
- The Administrative Costs are measured and the part AB is determined.
- Reduction proposals should focus on the AB because simplifying activities that would be done anyway does not contribute to a noticeable reduction in burden
- Only businesses can determine which activities are administrative costs (business as usual) and which are burdens

Origin of AB

- Legislation is made on different levels of Government. This determines to which extend the legislation can be changed.
- The AB-methodology determines three categories:
 - Category A: the legislation is completely international. No implementation on a national level that influences the AB.
 - Category B: the obligation is based on international legislation but is implemented at national level. The implementation influences the AB.
 - Category C: the legislation is completely made on the national level. There is no international legislation where the obligations originated from.
- The Polish Handbook also describes category D if the origin is unclear. This should be used only in exceptional cases.

Origin of AB

- The allocation in the categories of origin uses a sliding scale.



- The origin can differ for the various activities within one information obligation.

Assignment 2: additional information on the IO

- Goal: learn to add the additional information for IO's
- Add in the SCM (PxQ-sheet):
 - Type of information obligation (choose one from the drop-down: H17)
 - Percentage business as usual (column Y)
 - Origin of the administrative activities (column AC, AD or AE)
- To do this:
 - You have 10 minutes to complete the assignment
 - Continue with the SCM-template you used for assignment 1
 - Read the information provided

Assignment 2: answers

- Type of information obligation: Applying for permit or exemption
- Percentage business as usual: 0%
- Origin of the administrative activities: 100% C



The target group

1. Target group vs event based
2. Segmentation
3. Assignment 3



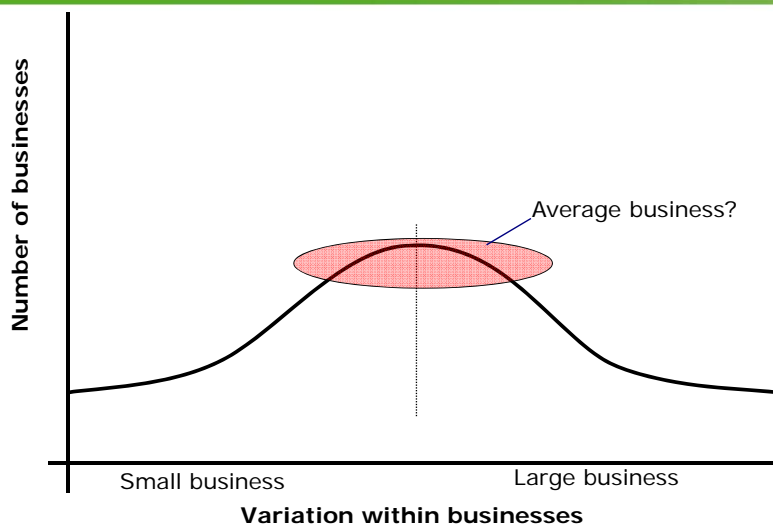
Determining Q: fixed frequency or not?

- When do we use?
 - Target group: Number of companies x Frequency
 - Event based: Number of actions.
- The rules:
 1. If the frequency is determined by the regulation, always use Target group: Number x Frequency. (Example: filling out tax forms once per year).
 2. When the information obligation is linked to an activity that needs to be carried out once (non-repetitive activity), always use event based: Number of actions. (Example: applying for a building permit).

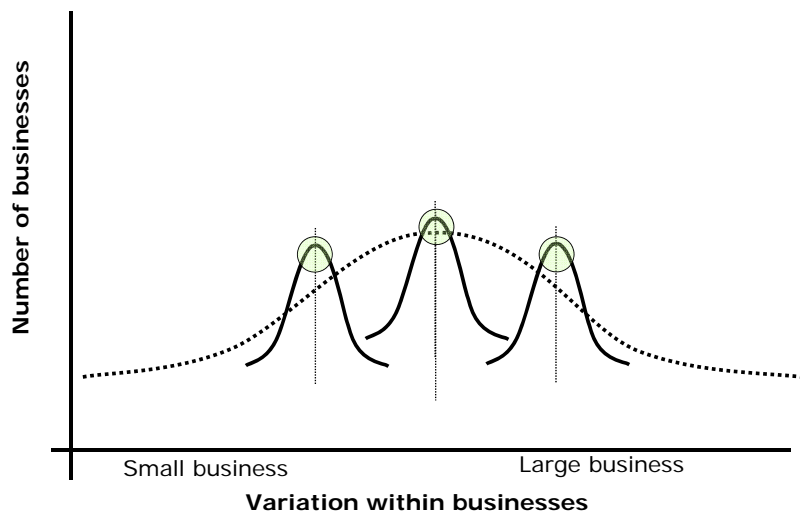
Determining Q: segmentation

- Time and costs of complying with information obligations can differ within the target group/event.
- Which factors influence these time and costs? Examples:
 - Laws can have different obligations for different types of businesses
 - Size of the company
 - Use of IT-systems
 - Use of external advisors
- It is important to determine these segments and fill in the SCM accordingly.

Determining Q: segmentation



Determining Q: segmentation



Determining Q: segmentation (company size)

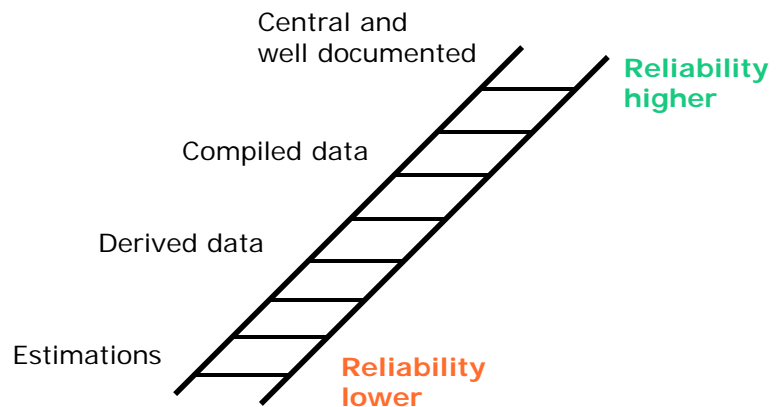
- The SCM makes a distinction between small, medium and large companies. For each category separate tariffs have been determined.
- When choosing a target group or event also choose a size for the companies involved. (S, M or L). This might mean that you need to fill in a target group or event three times.
- If it is not possible to determine the numbers for each size category (S, M and L), then choose the category that is expected to be most common.

Determining Q: the size of the target group/event

- It is important that uniform data is identified about the target groups/events. This is necessary to make sure that the data between different information obligations are comparable.
- Proposed ways of getting uniform data:
 - Use business categories based on the NACE-classification system.
 - Central administrations (for example: registration of vehicles, national statistics, revenue).

Determining Q: reliable sources

To ensure that the most reliable data is used, we use a source stepladder



Assignment 3: using different Q's

- Goal: learn how to use different target groups and how to fill in the SCM
- Add in the SCM:
 - The different relevant target groups and/or events (tab 'Q data')
 - The size and number of businesses or events (tab 'Q data')
 - Add the target group or event to the activities. (tab 'PxQ sheet')
 - Use different segments.
- To do this:
 - Use the text from the example and the additional information.
 - This assignment has three parts, 1 and 2 take about 5 minutes to complete. Part 3 about 10 minutes.

Assignment 3.1: Questions

- Which businesses have to comply with this obligation?
- Does the obligation have a fixed target group or is it event based?
- Fill the Tab 'Q-data' using this information:
 - For local governments (gmina) it is estimated that last year 60.000 applications were received. Mostly by small companies.
 - Other governments (powiat, voivodeship) received 25.000 applications last year. Mostly from medium sized companies.

Assignment 3.1: answers

- Target group: Businesses that want to remove trees or shrubs.
- This IO is event-based: businesses apply for this permit when they need to. This is not linked to a specific group of businesses or a fixed frequency.
- Not part of the target group (art. 83.6):
 - Organisations that maintain forests
 - Plantation owners
 - Owners of botanical and zoological gardens
 - Other specific situations mentioned in the law

Assignment 3.2: PxQ-sheet and segments

- How do you add 2 target groups to one single information obligation?
- Copy the information obligation:
 - Copy the entire worksheet (PxQ sheet) if you have multiple IO's for these target groups.
 - Copy the activities of the IO in a new block in the same worksheet if you only have one IO.
- Select the relevant target group for each individual activity.
- Event based target groups do not have a frequency.

Assignment 3.3: Other kinds of target groups

- Read the additional text for this assignment.
- Add the new target group in the sheet Q-data.
- Add a new IO in the PxQ-sheet based on the additional information.

Non-standard activities

Non standard activities

- Not all administrative activities can be described using the list of standard activities in the SCM template.
- These activities are specific because these ask for certain information or actions not required by most other information obligations.
- For these specific administrative activities additional information on the price of the administrative activity is needed to fill in the SCM-template.

Determining the price (P) of an activity

- The price of an administrative activity is calculated by:
 - Price (P) = Tariff (Wage rate) x Time (T) + Out-of-pocket costs
- All these factors have to be obtained by interviewing businesses.
- These factors are not often the same in businesses. Therefore the results of the interviews should be averaged.

Determining the wage rate/tariff

- The tariff includes the following costs:
 - hourly wage
 - employer costs
 - overhead costs
- A list of set tariffs is used with a distinction between:
 - Function level of the person carrying out the activity
 - The size of the business
 - Internal or external personnel
- To fill the SCM you need to know who (function) carries out the activity.

Determining the time

- Time is measured in the minutes that are needed to carry out an administrative activity.
- Time is very highly influenced by the way business and citizens carry out an activity. The most important factors are:
 - experience with the activity
 - availability of ICT
 - size of the business
- Always make sure if the way that the activity is done by the respondent is comparable with other businesses or citizens in the (segment of the) target group.

Determining the Out-of-pocket costs

- The Out-of-Pocket costs are the amount of money a business has to pay to an external party in order to satisfy the information obligation. For example:
 - Accountant costs
 - Report on soil pollution
 - Emissions to air investigation
- Use the audit-method for gathering the out-of-pocket costs. This means: have proof by asking for the invoice.
- Use crosschecks to verify the data. This can be done, for example, with:
 - Accounting firms
 - Research companies
 - Consultancy firms

Determining the average costs

Administrative activity A:		}	10 min.	Administrative activity B:		}	15 min.
Company 1	10 min.			Company 1	10 min.		
Company 2	10 min.			Company 2	20 min.		
Company 3	10 min.			Company 3	10 min.		
Company 4	10 min.			Company 4	20 min.		
Company 5	30 min.	Company 5	15 min.				
Administrative activity C:		}	More interviews	Administrative activity D:		}	20 min.
Company 1	10 min.			Company 1	10 min.		
Company 2	20 min.			Company 2	20 min.		
Company 3	50 min.			Company 3	25 min.		
Company 4	2 min.			Expert 1	20 min.		
Company 5	5 min.	Expert 2	15 min.				

Collection of reliable data: sensitivity analysis

- A way to ensure that the calculated AB has the best possible reliability is to do a sensitivity analysis.
- To do this you check the activities in the SCM model. The AB of an activity is often influenced by the P or the Q component:
 - The AB of activities with a high Q, is mostly influenced by P.
 - The AB of activities with a high P, is mostly influenced by Q.
- By doing a sensitivity analyses, you can determine the main focus of your information gathering.
- A sensitivity analysis is especially useful when measurements have to be carried out with limited resources.

Assignment 4: using non-standard activities

- Goal: learn how to use non-standard activities and how to fill in the SCM
- Add in the SCM:
 - Read the additional information
 - Add the non-standard activity including the time and costs.
 - Add the tariffs for all activities and all IO's.
- To do this:
 - You have 15 minutes to complete the assignment.
 - The results are discussed with the group.

Assignment 4: answers

- Collecting data on removed trees and shrubs:
 - Function level: Office employees
 - Time per year: 9,5 hours
 - External costs: 1.000 PLN

Reduction of Administrative Burden

- The SCM can be of help to determine to possibilities to determine the AB.
- In the Reduction Tree the possibilities are presented that can lead to reduction proposals by using the SCM.
- The SCM can calculate how much AB can be reduced.

Assignment 5: calculate AB reductions

- Goal: calculate the AB reduction of example proposals.
- Question (group): how can the AB for the example be reduced?
- Add in the SCM:
 - Copy the 'PxQ-sheet' in the SCM.
 - Change the copied PxQ-sheet according to the reduction proposals.
 - Compare the results for the 2 'PxQ-sheet's to calculate the reduction.
- To do this:
 - You have 15 minutes to complete the assignment.
 - The results are discussed with the group.

Exercise Guide SCM - Introduction

This document contains the additional information you need to carry out the assignments that are part of the SCM-training. This training is done in English. To help you we have added the Polish text of the law (assignment 1) and the list of types of information obligations (assignment 2) in Polish at the back of this document.

Assignment 1: Identifying information obligations and administrative activities

LAW, of April 16, 2004, about nature protection

Article 83

1. Removal of trees or shrubs from the property may take place subject to paragraph 2, after obtaining the permit issued by the commune head, mayor or city president at the request of the property owner. If the holder is not movable property is not the owner - the application is accompanied by the consent of its owner.
2. Permission to remove trees or shrubs from the real estate area entered to the register of monuments, is issued by the voivodeship conservator.
3. The issuance of the permit referred to in paragraph 1 and 2, may be dependent on replanting trees or shrubs to the place indicated in the permit or replacing them with other trees or shrubs, no number smaller than the number of removed trees or shrubs.
4. The application for the permit should contain:
 - 1) the name, surname and address or name and registered office of the holder and owner of the real estate;
 - 2) legal title to own real estate;
 - 3) the name of the species of tree or bush;
 - 4) perimeter of the tree trunk measured at a height of 130 cm;
 - 5) the destination of the area on which the tree or bush grows;
 - 6) the reason and date of the deliberate removal of a tree or bush;
 - 7) the size of the area from which the shrubs will be removed.
5. Issuing a permit to remove trees or shrubs in the protected landscape areas within the boundaries of the national park or nature reserve, obtaining the consent of the director of the national park or the authority recognizing the area as a nature reserve, respectively.
6. The provisions of para. 1 and 2 shall not apply to trees or shrubs:
 - 1) in forests;
 - 2) fruit, with the exception trees or shrubs growing in the property entered to the register of monuments and within the borders of a national park or reserve nature - in areas not covered by landscape protection;
 - 3) on plantations of trees and shrubs;
 - 4) whose age does not exceed 5 years;
 - 5) removed in connection with the functioning of botanical or zoological gardens;
 - 6) destroying the surface and road infrastructure, limiting the visibility on curves and intersections, excluding those growing in property entered in the register of monuments;

- 7) removed based on the decision of the competent authority from embankments for flood protection and areas less than 3 meters from the embankment foot;
- 8) which hinder the visibility of signalling devices for trains, hinder the operation of railway equipment or cause the formation of snowdrifts on railway tracks, removed based on the decision of the competent authority;
- 9) constituting air obstacles removed based on a decision of the competent authority.

Art. 84

1. The property owner bears the fees for removing trees or shrubs.
2. Fees shall be charged and collected by the authority competent to issue the removal permit trees or shrubs.
3. Fees for removal of trees or shrubs are determined in the issued permit.
4. The competent authority issues a permit to remove trees or shrubs for a period of 3 years from the day of issuing the permit, the deadline for payment of their fee removal of the permit provides for replanting or replacing trees or shrubs.
5. If replanted or newly planted trees or shrubs have survived after 3 years from the date of replanting or planting or not survived for reasons beyond the owner's control, the amount due for the agreed fee for the removal of trees or shrubs is subject to cancellation by the authority competent to charge and collect fees.
6. Fees for removal of trees or bushes, related to the construction of public roads, is reduced by the costs incurred to create new plantings instead of the removed trees or bushes, within the boundaries of the road lane.

Art. 85

1. The fee for removal of trees is determined on the basis of a rate depending on the circumference trunk and the type and species of the tree.
2. Rates for fees for tree removal may not exceed one centimetre of circumference trunk measured at a height of 130 cm:
 - 1) 270 PLN - with a circumference of up to 25 cm;
 - 2) 410 PLN - with a circumference of 26 to 50 cm;
 - 3) 640 PLN - with a circumference of 51 to 100 cm;
 - 4) 1000 PLN - with a circumference of 101 to 200 cm;
 - 5) 1500 PLN - at the circumference from 201 to 300 cm;
 - 6) 2,100 PLN - with a circumference of 301 to 500 cm;
 - 7) 2,700 PLN - with a circumference of 501 to 700 cm;
 - 8) 3500 PLN - with a circumference of over 700 cm.
3. If the tree is forked at an altitude below 130 cm, each trunk is treated as a separate tree.
4. The minister responsible for environmental matters shall specify, by way of a regulation:
 - 1) rates for particular types and species of trees,

2) coefficients differentiating rates depending on the trunk circumference - guided by the varied production costs of individual types and tree species and increment sizes of tree trunks.

5. The rate for removing one square meter of the surface covered with shrubs are fixed at 200 zlotys.

6. Fees for removal of trees or shrubs from the area of health resorts, the protection area for health resort, the area of real estate entered in the register of monuments and greenery areas are 100% higher than fees set on the basis of rates for which paragraph 4 point 1 and paragraph 5.

7. The rates referred to in paragraph 2, par. 4 point 1 and paragraph 5 shall be subject to indexation on 1 January every year with the forecasted average annual price index 'Total value of goods and services', as adopted in the Budget Act.

8. Minister competent for the environment, by 31 October annually, announces, by way of a notice in the Official Gazette of Poland "Monitor Polski", the rates referred to in paragraph. 7 and art. 89 paragraph 8.

Assignment 2: additional information on the information obligation

The obligation to ask for permission before a tree or shrub is removed, doesn't have any ground in international regulations. It is also an obligation that businesses would not do themselves if not required by law. In the table below the nine different types of IO's are described.

No.	Typ OI	Opis	Przykłady
1	Applying for permit or exemption	Concerns all applications for specific actions including running a specific business.	<ul style="list-style-type: none"> - Environmental permit - Building permit - Banking license
2	Certification	Concerns requests for certification of specific persons, processes or products. This entails all actions to obtain, maintain and provide certifications.	<ul style="list-style-type: none"> - CE certification - ISO if required by law
3	Registration	Keeping and/or providing information in or to a register as required by law.	<ul style="list-style-type: none"> - Entry to the Central Register - Fertilization accounts - Registers of visitors
4	Notification	Providing a notification of specific events or activities.	<ul style="list-style-type: none"> - Transport dangerous cargo - Industrial accidents
5	Reporting	Providing information to the government regarding the situation of the company as required by law. Excluding statics (see 9).	<ul style="list-style-type: none"> - Annual financial statements - Tax forms
6	Informing third parties	Providing other parties than the government with information as required by law. This can be through permanent marking or in other ways.	<ul style="list-style-type: none"> - Labels or tags on products - Financial brochures - Notifying employees of the obligations of the employer
7	Applying for public aid	Concerns all requests for public financial aid in respect to specific activities of companies	<ul style="list-style-type: none"> - Cultural grants - Agricultural subsidy
8	Inspections	Concerns all activities regarding inspections including working with and providing information to auditors and inspectors.	<ul style="list-style-type: none"> - Labour inspectorate checking working conditions
9	Mandatory surveys	Providing statistical information on behalf of the Central Government or institutions designated by the government. This does not entail checks on compliance.	<ul style="list-style-type: none"> - Providing sales statics - Information on livestock

Assignment 3: using different Q's

The information for part 1 and 2 of this assignment is shown during the presentation.

Assignment 3.3 (fictional addition to the case)

Housing association often own many properties and often require permits for removing trees and shrubs. To reduce the burden for housing associations, they get the opportunity to apply for a permit for a period of five years without having to apply for a new permit for each new project.

The applicants need to send this information to the competent authority to apply for this 5-year-permit:

- 1) the name, surname and address or name and registered office of the holder and owner of the real estate;
- 2) legal title to own real estate;
- 3) the destination of the areas on which the tree or bush grows;
- 4) a general description of reasons they have for removing trees and shrubs.

Each year they need to report to the competent authority on the trees and shrubs they removed.:

- 1) The number of trees they removed that year per species of tree;
- 2) the average perimeter of the tree trunk measured at a height of 130 cm per species;
- 4) the size of the area from which the shrubs were removed per species of shrubs.

It is expected that about 250 large housing corporations will apply for this.

Assignment 4: using non-standard activities

In order to comply with the new yearly obligation, large housing associations need to keep track of the information on the trees and shrubs they remove. This is not a standard activity because the time required for this kind of activity varies greatly depending on the type and amount of information that needs to be collected.

Interviews with 4 large housing associations give the following information:

	1	2	3	4
Function level	Office employees	Office employees	Office employees	Accountant
Time per year	12 hours	10 hours	8 hours	8 hours
External costs	600 PLN	1.000 PLN	900 PLN	1.500 PLN

To complete the calculation of the AB it is necessary to add tariffs for all administrative activities. Standard activities do not have a standard tariff. For this exercise we assume that all activities can be done by:

- Office employees for large companies
- Qualified workers for medium companies
- Managers for small companies

Assignment 5: Calculating reductions

Use the AB Reduction Tree to find reduction proposals to reduce the AB for the examples we have used during the training. We discuss the possible reduction proposals with the group and choose two for the calculation exercise.

To carry out the calculation:

- Copy the 'PxQ-sheet' with the information obligation.
- Change the copied PxQ-sheet according to the reduction proposals.
- Compare the results for the 2 PxQ-sheets to calculate the reduction.

Zadanie 1: Identyfikacja obowiązków informacyjnych i działań administracyjnych

USTAWA z dnia 16 kwietnia 2004 r. o ochronie przyrody

Art. 83

1. Usunięcie drzew lub krzewów z terenu nieruchomości może nastąpić, z zastrzeżeniem ust. 2, po uzyskaniu zezwolenia wydanego przez wójta, burmistrza albo prezydenta miasta na wniosek posiadacza nieruchomości. Jeżeli posiadacz nieruchomości nie jest właścicielem - do wniosku dołącza się zgodę jej właściciela.
2. Zezwolenie na usunięcie drzew lub krzewów z terenu nieruchomości wpisanej do rejestru zabytków wydaje wojewódzki konserwator zabytków.
3. Wydanie zezwolenia, o którym mowa w ust. 1 i 2, może być uzależnione od przesadzenia drzew lub krzewów w miejsce wskazane przez wydającego zezwolenie albo zastąpienia ich innymi drzewami lub krzewami, w liczbie nie mniejszej niż liczba usuwanych drzew lub krzewów.
4. Wniosek o wydanie zezwolenia powinien zawierać:
 - 1) imię, nazwisko i adres albo nazwę i siedzibę posiadacza i właściciela nieruchomości;
 - 2) tytuł prawny władania nieruchomością;
 - 3) nazwę gatunku drzewa lub krzewu;
 - 4) obwód pnia drzewa mierzonego na wysokości 130 cm;
 - 5) przeznaczenia terenu, na którym rośnie drzewo lub krzew;
 - 6) przyczynę i termin zamierzonego usunięcia drzewa lub krzewu;
 - 7) wielkość powierzchni, z której zostaną usunięte krzewy.
5. Wydanie zezwolenia na usunięcie drzew lub krzewów na obszarach objętych ochroną krajobrazową w granicach parku narodowego albo rezerwatu przyrody uzyskania zgody odpowiednio dyrektora parku narodowego albo organu uznającego obszar za rezerwat przyrody.
6. Przepisów ust. 1 i 2 nie stosuje się do drzew lub krzewów:
 - 1) w lasach;
 - 2) owocowych, z wyłączeniem rosnących na terenie nieruchomości wpisanej do rejestru zabytków oraz w granicach parku narodowego lub rezerwatu przyrody - na obszarach nieobjętych ochroną krajobrazową;
 - 3) na plantacjach drzew i krzewów;
 - 4) których wiek nie przekracza 5 lat;
 - 5) usuwanych w związku z funkcjonowaniem ogrodów botanicznych lub zoologicznych;
 - 6) niszczących nawierzchnię i infrastrukturę drogową, ograniczających widoczność na łukach i skrzyżowaniach, z wyłączeniem rosnących na terenie nieruchomości wpisanej do rejestru zabytków;
 - 7) usuwanych na podstawie decyzji właściwego organu z wałów przeciwpowodziowych i terenów w odległości mniejszej niż 3 m od stopy wału;

- 8) które utrudniają widoczność sygnalizatorów i pociągów, a także utrudniają eksploatację urządzeń kolejowych albo powodują tworzenie na torowiskach zasp śnieżnych, usuwanych na podstawie decyzji właściwego organu;
- 9) stanowiących przeszkody lotnicze, usuwanych na podstawie decyzji właściwego organu.

Art. 84

1. Posiadacz nieruchomości ponosi opłaty za usunięcie drzew lub krzewów.
2. Opłaty nalicza i pobiera organ właściwy do wydania zezwolenia na usunięcie drzew lub krzewów.
3. Opłaty za usunięcie drzew lub krzewów ustala się w wydanym zezwoleniu.
4. Organ właściwy do wydania zezwolenia na usunięcie drzew lub krzewów odracza, na okres 3 lat od dnia wydania zezwolenia, termin uiszczenia opłaty za ich usunięcie, jeżeli zezwolenie przewiduje przesadzenie ich w inne miejsce lub zastąpienie innymi drzewami lub krzewami.
5. Jeżeli przesadzone albo posadzone w zamian drzewa lub krzewy zachowały żywotność po upływie 3 lat od dnia ich przesadzenia albo posadzenia lub nie zachowały żywotności z przyczyn niezależnych od posiadacza nieruchomości, należność z tytułu ustalonej opłaty za usunięcie drzew lub krzewów podlega umorzeniu przez organ właściwy do naliczania i pobierania opłat.
6. Opłaty za usunięcie drzew lub krzewów, związane z budową dróg publicznych, pomniejsza się o koszty poniesione na tworzenie zadrzewień w miejsce usuniętych drzew lub krzewów, w granicach pasa drogowego.

Art. 85.

1. Opłatę za usunięcie drzew ustala się na podstawie stawki zależnej od obwodu pnia oraz rodzaju i gatunku drzewa.
2. Stawki opłat za usuwanie drzew nie mogą przekraczać za jeden centymetr obwodu pnia mierzonego na wysokości 130 cm:
 - 1) 270 zł - przy obwodzie do 25 cm;
 - 2) 410 zł - przy obwodzie od 26 do 50 cm;
 - 3) 640 zł - przy obwodzie od 51 do 100 cm;
 - 4) 1000 zł - przy obwodzie od 101 do 200 cm;
 - 5) 1500 zł - przy obwodzie od 201 do 300 cm;
 - 6) 2100 zł - przy obwodzie od 301 do 500 cm;
 - 7) 2700 zł - przy obwodzie od 501 do 700 cm;
 - 8) 3500 zł - przy obwodzie powyżej 700 cm.
3. Jeżeli drzewo rozwidła się na wysokości poniżej 130 cm, każdy pień traktuje się jako odrębne drzewo.
4. Minister właściwy do spraw środowiska określi, w drodze rozporządzenia:
 - 1) stawki dla poszczególnych rodzajów i gatunków drzew,

- 2) współczynniki różnicujące stawki w zależności od obwodu pnia- kierując się zróżnicowanymi kosztami produkcji poszczególnych rodzajów gatunków drzew oraz wielkościami przyrostu obwodu pni drzew.
5. Stawkę za usunięcie jednego metra kwadratowego powierzchni pokrytej krzewami ustala się w wysokości 200 zł.
6. Opłaty za usunięcie drzew lub krzewów z terenu uzdrowisk, obszaru ochrony uzdrowiskowej, terenu nieruchomości wpisanej do rejestru zabytków oraz terenów zieleni są o 100% wyższe od opłat ustalonych na podstawie stawek, o których mowa ust. 4 pkt 1 i ust. 5.
7. Stawki, o których mowa w ust. 2, ust. 4 pkt 1 i ust. 5, podlegają z dniem 1 stycznia każdego roku waloryzacji o prognozowany średnioroczny wskaźnik cen towarów i usług konsumpcyjnych ogółem, przyjęty w ustawie budżetowej.
8. Minister właściwy do spraw środowiska, w terminie do dnia 31 października każdego roku, ogłasza, w drodze obwieszczenia w Dzienniku Urzędowym Rzeczypospolitej Polskiej „Monitor Polski”, wysokość stawek, o których mowa w ust. 7 i art. 89 ust. 8.

Zadanie 2: dodatkowe informacje na temat obowiązku informacyjnego

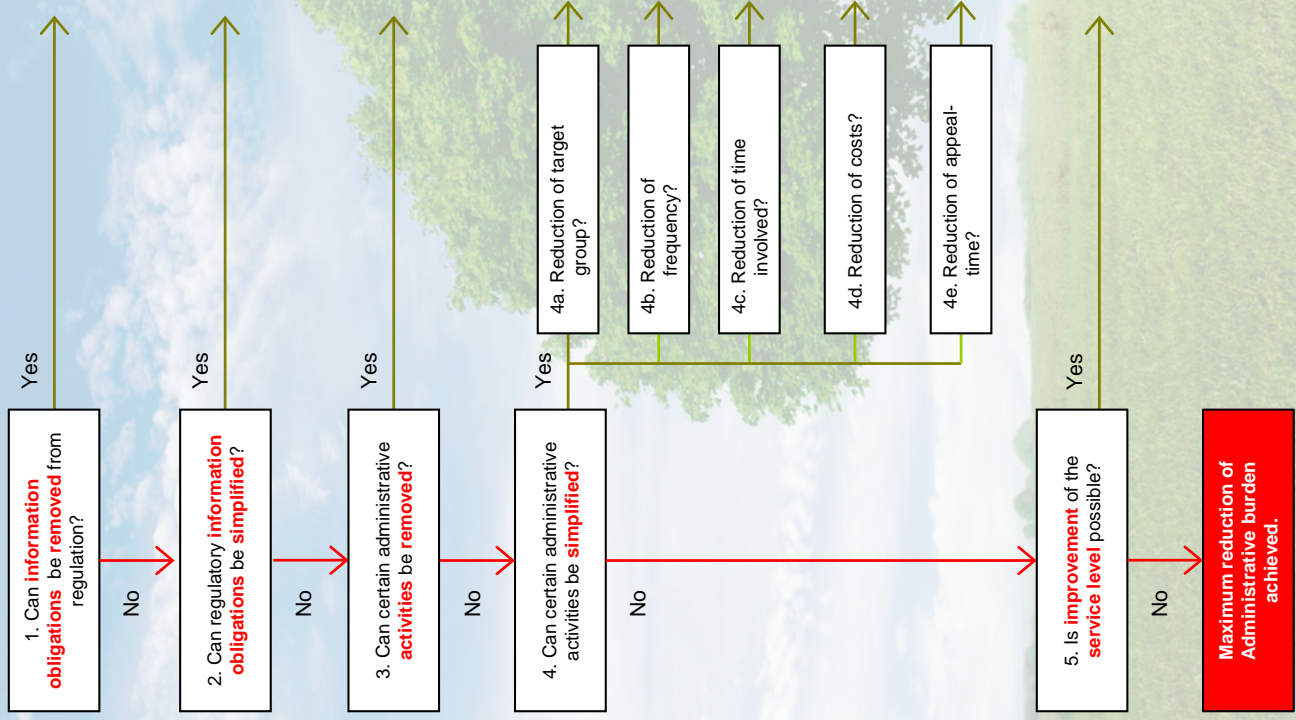
No.	Type of OI	Description	Examples
1	Ubieganie się o zezwolenie lub zwolnienie	Dotyczy wszystkich wniosków związanych z określonymi działaniami, w tym prowadzenie konkretnej działalności	- Pozwolenie środowiskowe - Pozwolenie na budowę - Licencja bankowa
2	Certyfikacja	Oznacza wnioski o certyfikację określonych osób, procesów lub produktów. Pociągają za sobą działania mające na celu uzyskanie, utrzymanie i zapewnienie certyfikatów.	- Certyfikaty CE - ISO jeśli wymagane prawem
3	Rejestracja	Przechowywanie informacji w i/lub dostarczanie informacji do rejestru zgodnie z wymogami prawnymi.	- Wpis do Rejestru Centralnego - Konta nawożenia - Rejestry odwiedzających
4	Notyfikacja	Powiadomienie o określonych wydarzeniach lub działaniach	- Transport niebezpiecznych ładunków - Wypadki przemysłowe
5	Sprawozdawczość	Przekazywanie administracji informacji na temat prowadzonej firmy, zgodnie z wymogami prawnymi, z wyłączeniem statystyki (pkt 9).	- Roczne sprawozdania finansowe - Deklaracje podatkowe
6	Informowanie stron trzecich	Udostępnianie innym niż administracji informacji wymaganych przez prawo. Może to nastąpić poprzez trwałe oznaczenie lub w inny sposób.	- Etykiety lub tagi na produktach - Broszury finansowe - Powiadamianie pracowników o obowiązkach pracodawcy
7	Ubieganie się o pomoc publiczną	Dotyczy wszystkich wniosków o publiczną pomoc finansową w odniesieniu do określonych działań firm.	- Granty kulturalne - Subsydia rolne
8	Inspekcje	Dotyczy wszystkich działań związanych z inspekcjami, w tym współpraca z inspektorami i dostarczanie im informacji.	- Inspekcja pracy sprawdzająca warunki pracy
9	Obowiązkowe badania/ankiety	Dostarczanie informacji statystycznych w imieniu rządu lub instytucji wyznaczonej przez rząd. Nie uwzględnia kontroli zgodności z prawem.	- Dostarczenie statystyk dot. sprzedaży - Informacje dot. Inwentarzu

Standard activities

Group	Standard activity	Time per enterprise (hh:mm/sec)			External Costs (zł)			Description	Substantiation	
		Small 0-10	Medium 11-250	Large > 250	Small 0-10	Medium 11-250	Large > 250			
Getting and sending forms	Get a form from a website	15/60	15/60	10/60				Look up a form on the internet, download it if needed or make a request via e-mail and make a print of the form.	Finding the required forms takes the most time. On average large companies are more familiar with where to find forms online and take less time.	
	Get a form via mail (post)	20/60	20/60	20/60	6,00 zł	6,00 zł	6,00 zł	Write a letter with the request to send the form, frank the letter, go to the mailbox or post office and post the letter.		
	Personally collect a format at a government office	30/60	30/60	30/60				Find the right office window, request the desired form, and receive the form. Travel time is excluded from this activity.	The time needed for this activity varies greatly mostly depending on the waiting time at that office.	
	Make copies or scan documents (per 10 pages)	8/60	5/60	3/60				Producing copies if more than one copy of the form, application or other documents need to be filed. Time also includes checking the copies and adding them to the forms.	Larger companies have more resources to do this. Small companies small companies might not have the resources to make to copies themselves.	
	Digitally submit a form	5/60	5/60	5/60				Send the form via e-mail, a website or SMS.	SMS might not be used (yet) in Poland.	
	Paying a fee for an application	5/60	5/60	5/60				When submitting an electronic application a fee might need to be payed. Waiting time is not part of this process.		
	Submit a form via mail (post)	20/60	20/60	20/60	6,00 zł	6,00 zł	6,00 zł	Put the form and annexes in an envelope, frank it, go to the mailbox and post the letter.		
	Personally submit a form at a government office	45/60	45/60	45/60				Find the correct address for admittance, issue the forms and annexes, await response from the recipient and possibly give a verbal explanation. Travel is excluded from this activity.	Time spent on this activity differs per office. An average is used. In International Transport Office it takes more than 30 minutes (up to 3 hours). In voivodship office up to an hour including getting to the office.	
	Collecting and filling in of data	Fill in name and address	2/60	5/60	15/60				Look up and fill in the name and address of the applicant (and company) and sign the form.	In larger companies it can take a long time to get the needed signatures from the authorised people.
		Fill in correspondence number	1/60	1/60	1/60				Look up and fill in the correspondence number. This can be any number that is linked to your business, like the number of the Chamber of Commerce.	Business say they know the number by heart or can quickly find it.
	Fill in subject of the application (simple)	10/60	15/60	20/60				Fill in which activities, location, products and/or tasks an application concerns. This involves filling out data other than name and address. This activity might need to be done multiple times in one form if the form asks for information on multiple subjects	The needed time increases with the size of the company because, on average, the complexity of the activities increases as well.	
	Fill in subject of the application (complex)	30/60	45/60	60/60				Look up information from already available permits and fill in the required information. This is needed when relying on information that is already been discussed with the government in earlier permit applications of other types of forms.	Finding the needed information takes the most time.	
	Fill in permit data	15/60	15/60	15/60				This empty row can be used to add new standard activities. To do so copy this entire row and fill in the information for the new standard activity. This will be added to the drop-down menu in the PXQ sheet automatically.		

Specific investigation and plans	Hiring external parties (preparation only)	1440/60	1440/60	2160/60					Hiring external advisors to handle specific requests. This includes (for example) accountants and environmental experts to carry out audits or specific investigations (see further activities). This activity is only the time spend to find and contract such an external party.		
	Audit by an accountant	1200/60	2400/60	4800/60	10.000 zł	15.000 zł	20.000 zł		Financial statements, grants and other obligation require an audit by an accountant.	Larger companies need more time and costs because of complexer processes.	
	Arranging acoustic investigation	480/60	480/60	960/60	45 zł	85 zł	600 zł		Having an acoustic investigation take place and guide the research team when necessary. IMPORTANT: costs do not vary based on the size of the business but on the complexity of the investigation. How to use: make a specific target group in the tab 'Q Data'. Determine the type of investigation: <i>Small</i> - Simple work place noise investigation <i>Medium</i> - Sound level measurement <i>Large</i> - Measurement of sound emission from installations and industrial plants. The costs are per point of measurement. Asses the average amount of measurement points and use <small>these as foundation in the DUB about</small> <u>soil pollution</u> and guide the research team when necessary. Costs vary based on the size and complexity of the businesses but also on the environmental impact of the activities of the company	Based on additional information gathered by the Ministry of Entrepreneurship and Technology.	
	Arranging soil investigation	480/60	480/60	960/60	10.000 zł	25.000 zł	45.000 zł		Having an investigation take place in to possible <u>soil pollution</u> and guide the research team when necessary. Costs vary based on the size and complexity of the businesses but also on the environmental impact of the activities of the company	Based on additional information gathered by the Ministry of Entrepreneurship and Technology.	
	Draft an emergency response plan	480/60	960/60	1440/60					For some applications an emergency response plan needs to be drafted. In case this is literally stated in the inquiry a time duration will be included in the model.		
	Make business plan (small)	2400/60	2400/60	2400/60					For some applications a simple business plan needs to be made. This describes in more detail the specific plans a company has and also includes the financial aspects like the necessary investments and possible return. In case this is literally stated in the inquiry a time duration will be included in the model.		
	Make business plan (big)	4800/60	6000/60	7200/60					For some applications an elaborate business plan needs to be made. This describes in more detail the specific plans a company has and also includes the financial aspects like the necessary investments and possible return. In case this is literally stated in the inquiry a time duration will be included in the model.	Larger companies have more complex proposals on average.	
	Looking up/finding specific information:										
		Look up identification	5/60	5/60	5/60					Look up I.D. (passport, driver's license, ID-card or residence permit) and make a copy.	
		Get or look up bank statement copy	15/60	15/60	15/60					Looking up a bank statement and make a copy or send a request to the bank (electronidly).	
	Look up and copy registration certificate of insurance policy	20/60	20/60	20/60					Look up insurance documents and make a copy.		

	Make/order an architectural map/plan	5/60	5/60	5/60					Make/order an architectural map/plan.	
	Get a detailed cadastral map	10/60	10/60	10/60					Look up and fill out name and address on the internet and make a print.	This can be done electronically.
	Make a certified copy of a document	60/60	60/60	60/60	6,00 zł	6,00 zł	6,00 zł	6,00 zł	Find the right office window, wait, hand over copy, wait for the certified copy, pay and receive certified copy. This excludes travel time to notary or municipality.	External cost is per page
	Provide a photo	15/60	15/60	15/60					As additional substantiation of the provided information the government might ask for a photo of a situation.	
	Make a simple sketch	20/60	20/60	20/60					Make a simple site sketch to clarify the request. For example when applying for changes to a monumental building.	
	Extract of birth certificate	10/60	10/60	10/60					Find the right website, make a request for a form and receive and send the form.	This can be done electronically.
	Extract of municipal personal records database	10/60	10/60	10/60					Find the right website, make a request for a form and receive the form.	This can be done electronically.
Other type of activities	Visit the municipality	45/60	45/60	45/60					Travel time from and to the desired address.	Time differ greatly because of the local situation (rural/urban). Delays caused by heavy traffic are discarded in this case.
	Visit the regional government office	60/60	60/60	60/60					Travel time from and to the desired address.	
	Meet with a civil servant to discuss a request	30/60	60/60	120/60					Conversation with the employee of the government. This might be needed in order to discuss intended activities and the required government procedures.	Time becomes longer as larger companies have, on average, more complex situations to discuss.
	Telephone call with a civil servant to discuss a request	20/60	20/60	20/60					Conversation with the employee of the government. This might be needed in order to discuss intended activities and the required government procedures.	Finding the right person might take much additional time.



Which regulatory obligations can be removed? Reasons for removing could be for example:

- Obligation is not used or seldom used.
- No risks are prevented or controlled. Examples are removing of permit systems, prohibitions and announcement obligations.
- Several regulations serve the same purpose. Permits could be integrated.

For certain information obligations in regulation other instruments can be used to achieve the same policy goal. Examples are:

- Use announce system instead of permit system.
- Use prohibition instead of permit system.
- Use dispensation instead of permit system.

In order to acquire permits certain procedures (activities) have to be followed. By removing non-functional parts of these procedures simplifications can be realized. Examples are:

- Certain supply of required information becomes unnecessary when governmental bodies use the information that is already available at other governmental bodies.
- Certain explanations become unnecessary when governmental bodies do more research themselves.

Increasing selection-limits for determining which citizens or businesses belong to the target group. For instance narrowing the definition of the selection criteria.

Lowering the number of times citizens or businesses need to fulfill obligations. For instance only require a report when things change instead of periodically.

Lowering of time consumed by simplifying activities. For example the use of (a) ICT, (b) only asking for relevant information (c) streamlining of work processes.

For instance (1) reduction of legal charges (2) lowering of costs by simplifying certain activities, like less extra copies of appeal forms or evidence.

Reduction of time consumed by governmental bodies. For instance by (a) one of the previous steps and (b) streamlining of work processes.

Improvement of service level of governmental bodies to citizens and businesses, aimed at aspects like accessibility and customer satisfaction. Examples are:

- Making regulations quickly and easily accessible via internet, search engines, decision trees or offices.
- Giving the proper information.
- Helping businesses with required actions for obligations instead of only accepting/rejecting.
- Working unambiguously.

Beside these aspects governmental bodies could give businesses extra information concerning other relevant regulations. For instance by giving descriptions of these regulations or contact information.

Maximum reduction of Administrative burden achieved.



GUIDANCE ON THE IDENTIFICATION AND MEASUREMENT OF REGULATORY BENEFITS

Prof. Dr. Wim Marneffe

A practical guide for the preparation of Regulatory Impact Assessments

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Introduction

Four assumptions of a perfectly competitive market:

1. There is **not one single** market actor (buyer or seller) that has market power,
2. The products that are traded on the market are **homogenous**,
3. There are **no barriers** to enter or exit the market,
4. Every single market actor has **perfect information** on market conditions at any time.

Introduction

⑩ In practice, these conditions do not hold true

→ Markets fail

⑩ Four types of market failure are identified:

1. Imperfect competition
2. Externalities
3. Information asymmetry
4. Public goods

⑩ Additionally, economic authors increasingly acknowledge transaction costs as the fifth market failure.

Introduction

⑩ Role of governments — design interventions that correct these market failures so that the market can shift towards the ‘social optimum’

⑩ Problem - government intervention also leads to costs

→ we need to check if this cost is justified by the benefits to the market of the intervention.

→ additionally, government intervention can take different forms with different costs and benefits, which means that we also need to identify which of the possible interventions overcomes the market failure most efficiently

Introduction

Be proportionate in analysis

⑩ Aim: measuring the impacts requires resources (e.g. time and data) and thus the policy maker should be proportionate in the analysis.

⑩ Factors and questions that can guide policy makers in their analysis:

- Impact: Which impacts are large enough to make a difference? Which impacts do you think are important?
- Need: What is the objective of the analysis? Is it necessary to measure all costs?
- Meaningfulness: Given the data already available and the time and resources available (to find or collect more data), which impacts can be ‘meaningfully’ quantified?

Overview of methods to measure benefits

- ⑩ For many goods and services there are **existing markets**
- ⑩ By trading a good or service, producers and consumers create **market value** and establish an **equilibrium** price and quantity
- ⑩ For most (standard) products and services the market price reflects the **actual value** of the underlying good
- ⑩ In general economists believe that the **price mechanism** can be used to assess the **value** of a certain good or service.

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Overview of methods to measure benefits

Example

- ⑩ Suppose the city of Warsaw wants to perform a RIA on setting up a low emissions zone (LEZ) to reduce CO₂ emissions of private cars by 25%
- ⑩ Policy makers would have to determine the benefits of the proposed intervention.
- ⑩ One of the economic benefits of the LEZ will be the positive impact on sales of hybrid and electric cars.
- ⑩ By looking at the current market prices and quantities for these types of cars, the benefit of the government intervention for the automotive industry can easily be determined

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Overview of methods to measure benefits

Specific points of attention in using the market price for standard goods

1. the drastic increase or decrease in the demand of a certain product following a government decision
 - Increase in electric in hybrid cars price following the LEZ project implementation
2. the consideration of subsidies that distort the actual market price levels
 - If the producers of these cars benefit from government subsidies, the market price (consumers pay) is artificially low
3. goods and services for which there is no price mechanism and basically no markets exists
 - the benefit of improved air quality in the city of Warsaw

To monetise such benefits, we need to resort to non-market valuation techniques.

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Non-market valuation methods for demand

Demand-side

Objective - to determine the **willingness to pay** of consumers for a certain economic benefit

Two ways of determining willingness to pay

1. Stated preference techniques
2. Revealed preference techniques

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Non-market valuation methods for demand

⑩ Stated preference techniques

⑩ Benefits are measured by surveying consumers and to a lesser extent other stakeholders on their willingness to pay

⑩ Common methods:

1. the open-ended willingness to pay method
2. the closed-ended iterative bidding method
3. the contingent ranking method
4. the dichotomous choice method
5. conjoint analysis

⑩ Problem - stated preference survey techniques are sensitive to different sorts of bias and strategic answers

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Non-market valuation methods for demand

Example stated preference technique

One possible way of measuring the value of an LEZ in Warsaw would be to survey the inhabitants regarding their willingness to pay for a less polluted environment.

- ⑩ start with a **detailed description** and even possibly simulated images of three possible states of pollution in Warsaw, one being the status quo and the other two being two different lower levels of pollution
- ⑩ respondents would be asked if they would be willing to pay a **certain low sum** of money annually to exchange the status quo for the next lower level of pollution
- ⑩ if the respondent agrees, then they are asked if they would be willing to pay an **additional fixed amount**
- ⑩ as long as the respondent keeps agreeing, the interviewer keeps adding the same fixed amount, until the respondent indicates that he has reach the **optimal sum** that he is willing to pay

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Non-market valuation methods for demand

Revealed preference techniques

- ⑩ Observe people's actions and to infer the value they place on goods and services
- ⑩ Consumers are not explicitly asked to state their preference for a specific policy option
- ⑩ The choices and behaviour of consumers are observed under normal circumstances or derived from readily available data
- ⑩ The challenge with this approach is to identify and observe the actions that would reveal the relevant information
- ⑩ Sometimes stated preference techniques are the only feasible and cost-effective option to establish a value without resorting to extensive (and expensive) surveys.

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Non-market valuation methods for demand

Example revealed preference techniques

A possible revealed preference approach to measure the value of an LEZ to the inhabitants of Warsaw would be to investigate household **purchases of goods that improve air quality**, like air purifiers, clean air house plants or air-conditioning and heating system filters. This would reveal how much money people are **willing to pay** to improve air quality.

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Non-market valuation methods for supply

Measuring avoided costs

- ⑩ presumes that market values for the avoided costs (benefits) are known or directly observable
- ⑩ does not actually measure welfare, just a specific component contributing to welfare

Example LEZ:

- ⑩ the health benefits for the inhabitants can be measured by looking into the cost of hospitalisation and medical consultation for the inhabitants due to air pollution.
→ the medical cost per inhabitant and the number of susceptible inhabitants are known or observable.

Direct versus indirect benefits

Direct benefits

- ⑩ can be linked to the policy goal of the regulation and are a direct consequence of the regulation itself
- ⑩ Two types:
 1. benefits that address market failures
 2. general benefits that improve society as a whole

Indirect benefits

1. benefits from third party compliance with legal rules
2. benefits from achieving policy goals
3. wider economic benefits generated by multiplier effects

Direct versus indirect benefits

Example 1

The government wants to increase the number of young people starting graduate education by decreasing the tuition fees.

Direct impacts are:

- ⑩ the savings for the families
- ⑩ the increased enrolment in the universities
- ⑩ the increased number of graduates after a few years, etc.

Indirect impacts are:

- ⑩ the reduced rates of unemployment in a few years
- ⑩ potentially lower crime rates as a consequence of reduced unemployment.

Direct versus indirect benefits

Example 2

- ⑩ The Car Pass tackles the **asymmetry of information** in the second-hand car market.
- ⑩ The buyer has **less information** about a second-hand car than the seller.
- ⑩ Buyers are distrustful of the quality of a used car → **not willing to pay** the true value of a used car
- ⑩ Owners of cars are aware of this market distortion → are **not willing to sell** at the current suboptimal market price.
- ⑩ Therefore, the lower quality used cars displace the higher quality used cars from the market and the **volume of used cars sold is suboptimal**.
- ⑩ The Car Pass is a legally required document → very garage, body shop, tyre centre, technical inspection centre, etc. has to register the mileage of each car in the Car Pass database whenever maintenance or repair is carried out.
- ⑩ When the car is sold on the second-hand market, the seller must hand over the Car Pass document to the buyer.

Direct versus indirect benefits

Example 2

The benefit of is a reduction in the asymmetric information between the sellers and buyers of second-hand cars.

Direct benefits

- ⑩ Avoiding to pay 50 euro for independent inspections of the car

Indirect benefits

- ⑩ an increase of trust in the second-hand car industry
- ⑩ an increase in road safety due to technical better cars, and
- ⑩ a decline in undeclared work to cars.

This example demonstrates that regulatory benefits can be distributed over various stakeholders (consumers, companies, sectors or markets and government). Notice that some stakeholders will gain, and others will lose.

Dealing with uncertainty about underlying assumptions

Sensitivity analysis

- ⑩ We face **uncertainty** about the predicted impacts and their values
- ⑩ The most plausible estimates comprise the **base case**
- ⑩ Purpose: show **how sensitive** predicted net benefits are to changes in assumptions
- ⑩ If the sign of net benefits does not change then our results are **robust**
- ⑩ Looking at all combinations of assumptions is **infeasible**

Dealing with uncertainty about underlying assumptions

Sensitivity analysis

- ⑩ Partial sensitivity analysis
 - ⑩ Worst/best case scenario
 - ⑩ Monte Carlo
- ⑩ If robustness cannot be examined numerically, provide a qualitative discussion of the appropriateness to gauge the reliability of results

Dealing with uncertainty about underlying assumptions

Partial sensitivity analysis

- ⑩ How do net benefits change when we **vary a single assumption** while holding all others constant?
- ⑩ We can also calculate the *breakeven value*: the probability at which net benefits switch from positive to negative (or vice versa)

Dealing with uncertainty about underlying assumptions

Best/Worst Case sensitivity analysis

- ⑩ **Base Case:** Assign the **most plausible** numerical values to unknown parameters to produce an estimate of net benefits that is thought to be most representative
- ⑩ **Worst Case:** Assign the **least favorable** of the plausible range of values to the parameters
 - conservative approach; check against optimistic forecasts; for risk averse decision-makers
- ⑩ **Best Case:** Assign the **most favorable** of the plausible range of values to the parameters

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Dealing with uncertainty about underlying assumptions

Monte Carlo sensitivity analysis

Partial and best/worst case sensitivity analyses have two limitations:

- They may not take account of all of the available information about the assumed values of parameters (i.e., worst and best cases are highly unlikely)
- These techniques do not directly provide information about the variance of the statistical distribution of the realized net benefits (i.e. one would feel more confident about an expected value with a smaller variance because it has a higher probability of producing net benefits near the expected value)

→ **Monte Carlo sensitivity analysis**

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Dealing with uncertainty about underlying assumptions

Monte Carlo sensitivity analysis

⑩ Playing games of chance many times to elicit a **distribution of outcomes**

⑩ Steps:

- Specify the **probability distributions** for all of the important uncertain quantitative assumptions (it is often reasonable to specify a uniform distribution when the distribution is unknown)
- Execute a trial by taking a **random draw** from the distribution for each parameter to arrive at a specific value for computing realized net benefits
- **Repeat** the trial many times
- The **average of the trials** provides an estimate of the expected value of net benefits

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Dealing with uncertainty about underlying assumptions

Example LEZ

It is possible to determine the benefit of the intervention by using an avoided cost approach.

- People driving environmentally unfriendly cars are denied access to an LEZ → the benefit of the LEZ can be measured by monetising the value of the foregone emissions of those cars not being admitted to the LEZ anymore.

In order to monetise the value of the emissions of the environmentally unfriendly cars, the current value of the following parameters should be known:

- (1) the number of cars that are banned,
- (2) the distance in kilometres those cars drive each year in the zone,
- (3) the CO₂, NO_x and other gasses those cars emit per kilometre, and
- (4) the cost per unit of emission for each of the gasses.

It would be necessary to make multiple assumptions → highly unlikely to know exact numbers

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Dealing with uncertainty about underlying assumptions

⑩ Suppose that:

⑩ Government officials from Warsaw and Poland find it plausible that each of the 20,000 environmentally unfriendly registered cars in Warsaw drives 500 kilometres per year on average in the city centre.

⑩ The cost the GHG emissions impose on society, and the investment cost of installing the LEZ, the overall net benefit of the LEZ is **positive**

⑩ It would then be advisable to conduct a sensitivity analysis to prevent that the decision on the LEZ be based on a faulty assumption on the number of kilometres.

Regulatory Impact Assessment

⑩ Increasing role for RIAs

⑩ Helps institutions to develop **evidence-based policies and decisions**

⑩ **Compares** possible outcomes of different policy options in the context of a government intervention to address a market failure

⑩ For each policy option, its impacts have to be **identified, described** and **monetised** in order to find the net benefit of the policy option

Regulatory Impact Assessment

The process of identifying, describing and quantifying impacts of a government intervention can be subdivided into the following five steps:

1. Identification of actors impacted by the policy option
2. Identification of impacts
 - Costs vs. benefits
 - Economic vs. non-economic benefits
 - Tangible vs. intangible economic benefits
 - Direct vs. indirect economic benefits
 - One-off vs. recurrent economic benefits
3. Qualitative description of the economic benefits
4. Quantification/monetisation of the economic benefits
5. Comparison of the net benefits

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Identification of actors impacted by the policy option

STEP 1: IDENTIFICATION OF ACTORS

I.	Consider which of the four actors are impacted by the proposed policy option.
II.	For each actor that is impacted, describe which specific groups are impacted.
III.	For each group that is impacted, describe how this group is impacted by the proposed policy option.

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Identification of actors impacted by the policy option

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III.	For each group that is impacted, describe how this group is impacted by the proposed policy option.

I. In general, government intervention can yield economic benefits for four (groups of) actors:

- (1) Consumers
- (2) Companies
- (3) Markets
- (4) Institutions

Next to the four groups, there are also potential benefits that can lead to society. For instance, clean air is benefit to all of society.

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Identification of actors impacted by the policy option

STEP 1: IDENTIFICATION OF ACTORS

I.	Consider which of the four actors are impacted by the proposed policy option.
II.	For each actor that is impacted, describe which specific groups are impacted.
III.	For each group that is impacted, describe how this group is impacted by the proposed policy option.

II. The following questions can be answered to get a better understanding of the impacted stakeholders:

- How many companies are active in the market/sector?
- How can their activities be described?
- What is the market share of these companies in terms of sales?
- What is the average turnover of these companies?
- What are specific or common characteristics of these companies?
Are they subsidiaries of international groups? Are they export-oriented? Are they located in a regional cluster?

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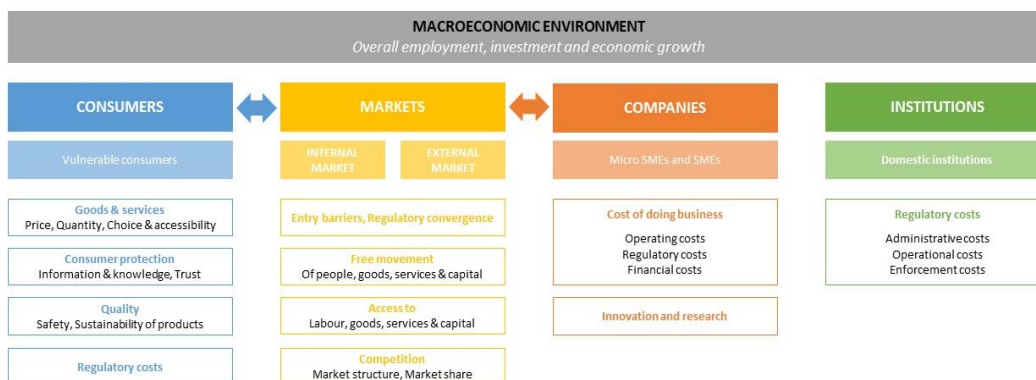
Identification of actors impacted by the policy option

STEP 1: IDENTIFICATION OF ACTORS

I.	Consider which of the four actors are impacted by the proposed policy option.
II.	For each actor that is impacted, describe which specific groups are impacted.
III.	For each group that is impacted, describe how this group is impacted by the proposed policy option.

III.

OVERVIEW OF POSSIBLE IMPACTS OF GOVERNMENT INTERVENTION



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Identification of actors impacted by the policy option

POSSIBLE IMPACTS OF GOVERNMENT INTERVENTION FOR DIFFERENT ACTORS

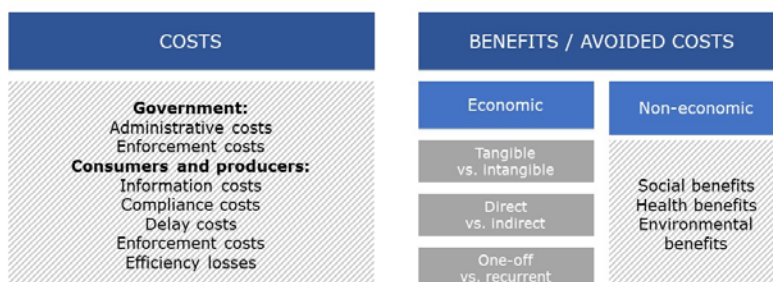
Impact	Consumers	Markets	Companies	Institutions
Goods and services	Price	•		
	Quantity	•		
	Choice	•		
	Accessibility	•		
Consumer protection	Information	•		
	Knowledge	•		
	Trust	•		
Quality	Safety	•		
	Sustainability	•		
Entry barriers		•	•	
Regulatory convergence		•	•	•
Free movement	People	•	•	•
	Goods & Services	•	•	•
	Capital	•	•	•
Access to	Labour		•	•
	Goods & Services		•	•
	Capital		•	•
Competition	Market structure		•	•
	Market share		•	•
Cost of doing business/ Cost of complying	Operating costs	•		•
	Regulatory costs	•		•
	Financial costs	•		•
Innovation and research		•	•	
Macro-economic impacts			•	

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Identification of impacts

STEP 2: IDENTIFICATION OF IMPACTS

I.	Identify all costs and benefits stemming from the proposed policy option.
II.	Consider proportionality regarding the identified benefits.
III.	Differentiate between economic and non-economic benefits, and select only economic benefits.
IV.	For each economic benefit, differentiate between tangible and intangible benefits, and select only tangible economic benefits.
V.	For each economic benefit, differentiate between direct and indirect benefits.
VI.	For each economic benefit, differentiate between one-off and recurrent benefits, and determine duration of recurrent economic benefits.



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Identification of impacts

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Direct regulatory costs	
Borne by governments	Administrative costs
	Enforcement costs
	Monitoring costs
	Inspection costs
Borne by citizens and businesses	Adjudication costs
	Litigation costs
	Information costs
	Compliance costs
	Administrative burdens
	Start-up or one-off costs
	Operational or recurring costs
Delay costs	
Enforcement costs	

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Identification of impacts

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V.	For each economic benefit, differentiate between direct and indirect benefits.
VI.	For each economic benefit, differentiate between one-off and recurrent benefits, and determine duration of recurrent economic benefits.

- Focus on most important benefits stemming from the regulation
- Focus on benefits that are 'meaningful' to measure
- Focus on benefits for which data can be obtained

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Identification of impacts

STEP 2: IDENTIFICATION OF IMPACTS

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VI.	For each economic benefit, differentiate between one-off and recurrent benefits, and determine duration of recurrent economic benefits.

- Most government interventions not only create economic benefits to individuals and society, they also induce social benefits
- Due to the difficulty of quantifying and monetising those non-economic benefits, we recommend focussing on
 1. Economic benefits (for which market prices or non-market valuation techniques can be used to monetise) and
 2. Direct effects

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Identification of impacts

STEP 2: IDENTIFICATION OF IMPACTS

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V.	For each economic benefit, differentiate between direct and indirect benefits.
VI.	For each economic benefit, differentiate between one-off and recurrent benefits, and determine duration of recurrent economic benefits.

- Intangible economic benefits are (more) difficult to quantify and monetise
- We advise the drafters of a RIA to focus predominantly on those economic benefits that can be expressed in monetary terms.

Identification of impacts

STEP 2: IDENTIFICATION OF IMPACTS

I.	Identify all costs and benefits stemming from the proposed policy option.
II.	Consider proportionality regarding the identified benefits.
III.	Differentiate between economic and non-economic benefits, and select only economic benefits.
IV.	For each economic benefit, differentiate between tangible and intangible benefits, and select only tangible economic benefits.
V.	For each economic benefit, differentiate between direct and indirect benefits.
VI.	For each economic benefit, differentiate between one-off and recurrent benefits, and determine duration of recurrent economic benefits.

- By thoroughly identifying the direct economic benefits of a government intervention, and thus by focussing in a proportionate manner on the most significant benefits, the *omission error* that arises because not all (indirect) benefits are included, can be minimised.

Identification of impacts

STEP 2: IDENTIFICATION OF IMPACTS

I.	Identify all costs and benefits stemming from the proposed policy option.
II.	Consider proportionality regarding the identified benefits.
III.	Differentiate between economic and non-economic benefits, and select only economic benefits.
IV.	For each economic benefit, differentiate between tangible and intangible benefits, and select only tangible economic benefits.
V.	For each economic benefit, differentiate between direct and indirect benefits.
VI.	For each economic benefit, differentiate between one-off and recurrent benefits, and determine duration of recurrent economic benefits.

- A one-off benefit is a benefit that will occur only once in time
- A recurrent benefit is a benefit that will occur repetitively on e.g. a monthly, quarterly, yearly or multi-yearly basis
- Besides being aware of these recurrent benefits, policy makers should **discount** these recurrent benefits in their RIA (in this case reduced administrative burden).
 - impacts that will (continuously) emerge at a later time, should be accounted for in calculations made today.
 - The social discount rate is used to convert future benefits – valued at the applicable prices of that future moment – to their present values
 - Note that both monetary as non-monetary benefits should be discounted

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Identification of impacts

Before assessing the impacts on its relevant stakeholders in detail, the analyst should consider three dimensions of relevance:

- **Justification of costs**
 - Do the benefits of the proposed regulation justify the costs?
- **Imposing the least burden**
 - Assess whether the regulation imposes regulation on entities that are already subject to other related regulations or regulations implemented by the same body. If so, what is the cumulative burden and costs of the requirements imposed on the regulated entities? Are these costs justified by the benefits?
 - If this regulation will impact on small businesses at large scale, could it be altered in such a way to reduce the negative impacts while maintaining its purpose?
 - Are there any logical alternatives to this regulation that could reduce its burden to the state, regional or local level without compromising its actual intended purpose?
- **Meaningfulness**
 - Would it be possible to alter the regulation in such a way to achieve greater cost-effectiveness while still achieving the intended results?

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Qualitative description of the economic benefits

STEP 3: QUALITATIVE DESCRIPTION OF BENEFITS

I.	Indicate which impact is relevant (column 1 of the following table)
II.	Describe the magnitude of the impact qualitatively (in column 3 of the following table) by answering the guiding questions (in column 2 of the following table).
III.	Select relevant indicators that assess the scope and magnitude of the impact. Column 4 (of the following table) has some general indicators for each impact as well an example of some specific indicators.

1. CONSUMERS			
1.1 GOODS AND SERVICES	GUIDING QUESTIONS	QUALITATIVE DESCRIPTION	INDICATORS
1.1.1 Price	<ul style="list-style-type: none"> Does the policy option have significant consequences for the financial situation of individuals / households, both immediately and in the long run? Will the regulation result in an increase or decrease in overall prices or prices for specific commodities or services? If so, which are the main commodities/services affected? Is the commodity/service price sensitive? If so, please explain. What is the expected change in prices resulted from the implementation of the regulation? Will the price change affect a certain group of consumers or all consumers? 	<p>Let us consider a new policy implemented in country A that has the purpose of decreasing VAT on cars from X% to Y%.</p> <p>The result will be a decrease in the price of cars and a higher volume of automobiles sold.</p> <p>The policy will have a significant and immediate effect and will result in a total decrease in VAT on cars from 200M to 150M. The benefit for the consumers of cars will be thus 50M per year since they no longer have to pay this amount of VAT.</p> <p>Indirect results would be considered the decreased usage of public transport and thus the revenues that come along with it, decrease in the quality of air and the health expenses associated, more crowded traffic and increased number of injuries and deaths and increased traffic that would result in time spent on the road.</p>	<p><u>General Indicators</u></p> <ul style="list-style-type: none"> Consumer Price Index (CPI) People at risk of poverty or social exclusion and people who escaped poverty or social exclusion Median household income Annual Net earnings Households disposable income, spending, savings, debt, financial assets, financial transactions, net worth <p><u>Examples of Case-Specific Indicators</u></p> <ul style="list-style-type: none"> Price index of cars Evolution of price of cars

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Quantification/monetisation of the economic benefits

General outline of methods

- 10 Market methods: if a market exists, the price mechanism can be used
 - market prices are not always a good indicator (e.g. externalities, public goods or if monopoly power is present)
 - if prices do not reflect the social value of a good (cost or benefit), “shadow pricing” can be used
- 10 WTP:
 - benefits are the sum of the amounts people are willing to pay to gain from a regulation
 - costs are the sum of the amounts people are willing to pay to avoid a regulation

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Quantification/monetisation of the economic benefits

Methods to evaluate policies and program

- ⑩ Cost Benefit Analysis
- ⑩ Cost-effectiveness Analysis
- ⑩ Multi-criteria Analysis
- ⑩ Least Cost Analysis
- ⑩ Standard Cost Model
- ⑩ Counterfactual Analysis
- ⑩ SWOT analysis

Quantitative methods

Quantification/monetisation of the economic benefits

Cost-benefit Analysis

- ⑩ Policy assessment method that quantifies the value of all **policy consequences** in **monetary terms** to all members of **society**
- ⑩ Calculates net social benefits (NSB) for each policy alternative as the difference between the costs and the benefits of the project
- ⑩ **Discounting** - A given amount of real resources in the future is worth less than the same amount is worth now

Quantification/monetisation of the economic benefits

The basic steps of CBA

1. Specify the set of **alternative** projects
2. Decide **whose** benefits and costs count (standing)
3. Identify the **impact categories**, catalogue them and select measurement indicators
4. Predict the **impacts quantitatively** over the life of the project
5. **Monetise** (attach dollar/euro values to) all impacts
6. **Discount** costs and benefits to obtain present values
7. Compute the **net present value** of each alternative
8. Perform **sensitivity analyses**
9. Make a **recommendation**

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Quantification/monetisation of the economic benefits

Cost-effectiveness analysis (CEA)

- ⑩ **Alternative** for CBA (especially in areas such as health and defense policy)
- ⑩ Compares (mutually exclusive) alternatives in terms of the ratio of their **costs** and a single **quantified effectiveness** measure
- ⑩ Not required to **monetise** effects
- ⑩ It becomes possible to **rank** alternatives

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Quantification/monetisation of the economic benefits

CEA involves two measures:

- Costs - measured in euros
- Effectiveness - measured in units (e.g., lives saved, tons of CO2 reduced, number of children vaccinated, ...)
- The ratio of these 2 measures is used to rank alternative policies.

Quantification/monetisation of the economic benefits

CEA

⑩ CEA **omits impacts** that would be included in CBA

- CEA considers only one measure of effectiveness.

⑩ In practice, projects often have multiple benefits

- to measure allocative efficiency, all costs and benefits should be considered

Quantification/monetisation of the economic benefits

Multi-criteria analysis

- ⑩ Different options can be compared based on **various criteria**
- ⑩ Not necessary to monetize effects.
 - *E.g.*, investing in a new operating system:
 - Investment cost: in euro
 - Update time saved: in hours
 - Number of hacks: count
 - Number of viruses prevented: count
- ⑩ Weighing the different aspects - a disadvantage of this method
 - The weighing has a large influence on the outcome

Quantification/monetisation of the economic benefits

Multi-criteria analysis

- ⑩ Step 1: determine **costs and benefits**
- ⑩ Step 2: standardization **row maximum**
- ⑩ Step 3: **multiply** by weights and sum up
- ⑩ Step 4: determine **preference rule**

Quantification/monetisation of the economic benefits

OVERVIEW OF POSSIBLE IMPACTS OF GOVERNMENT INTERVENTION



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Thank you!



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Day 3



Case study

Electronic meal vouchers in Belgium

Prof. Dr Wim Marneffe – Hasselt University, Belgium



learning and development - consultancy - research

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Case introduction (1/2)

- Meal vouchers are a social benefit granted to employees by employers
 - Employee:
 - No social security contributions
 - No taxes
 - Increase in purchasing power
 - Employer:
 - No social security contributions
 - Deductible amount from corporate tax
- Stimulate turnover and employment for food and food service (catering) merchants

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Case introduction (2/2)

- System was introduced in Belgium in 1965
- Purpose is to compensate employees that have to provide lunch meals themselves (alternative for company restaurant)
- Other policy goal is to stimulate citizens to buy healthy food

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Baseline

- Meal vouchers are paper-based
- Similar to checks or cash banknotes



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Assignment 1

Problem analysis and definition

Carefully read the general information and answer the questions.

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Assignment 1: Problem analysis and definition

- 1) What are the problems?
- 2) What are the drivers?
- 3) Who are the affected stakeholders?
- 4) Who are the affected groups?
- 5) How is each group impacted?
- 6) How will the problems evolve?
- 7) Concise formulation of the central problem
- 8) Problem tree

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What are the problems?



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What are the problems? (1/8)

- High service, transaction and delivery costs
- High administrative burdens/compliance costs
- 0.5% of all meal vouchers get lost, stolen and/or expired
- Unofficial circuit for spending meal vouchers
- Only 2 players on the market: weak competition
- Meal vouchers can only be spend on food in Belgium
- ...

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What are the drivers?



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What are the drivers? (2/8)

- Paper-based system
- Lack of control on the spending of meal vouchers
- Limited validity (6 months)
- High entry costs for potential issuers (contracts and investments)
- Entry barrier for potential issuers: certification
- Historical driver of the system: high social security contributions and taxes on employment
- ...

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Who are the affected stakeholders?



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Who are the affected stakeholders? (3/8)

- Consumers ✓
- Companies ✓
- Markets ✓
- Government ✓

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Who are the affected groups?



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Who are the affected groups? (4/8)

- Consumers:
 - Direct consumers: Employers (Q = 75.000)
 - End consumers: Employees (Q = 2.000.000)
- Companies:
 - Issuers (Q = 2)
 - Food and food service merchants (Q = 9.000, 75% SME)
- Market: Voucher market
- Government: Treasury

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Visual display of affected stakeholders



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How is each group impacted?



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How is each group impacted? (5/8)

- Direct consumers (employers):
 - Service and delivery costs
 - Administrative burdens/compliance costs
- End consumers (employees):
 - Administrative burdens
 - Loss, theft and expiration of meal vouchers
- Issuers:
 - Revenues from fees paid by employers and merchants
 - Revenues from lost, stolen and expired meal vouchers

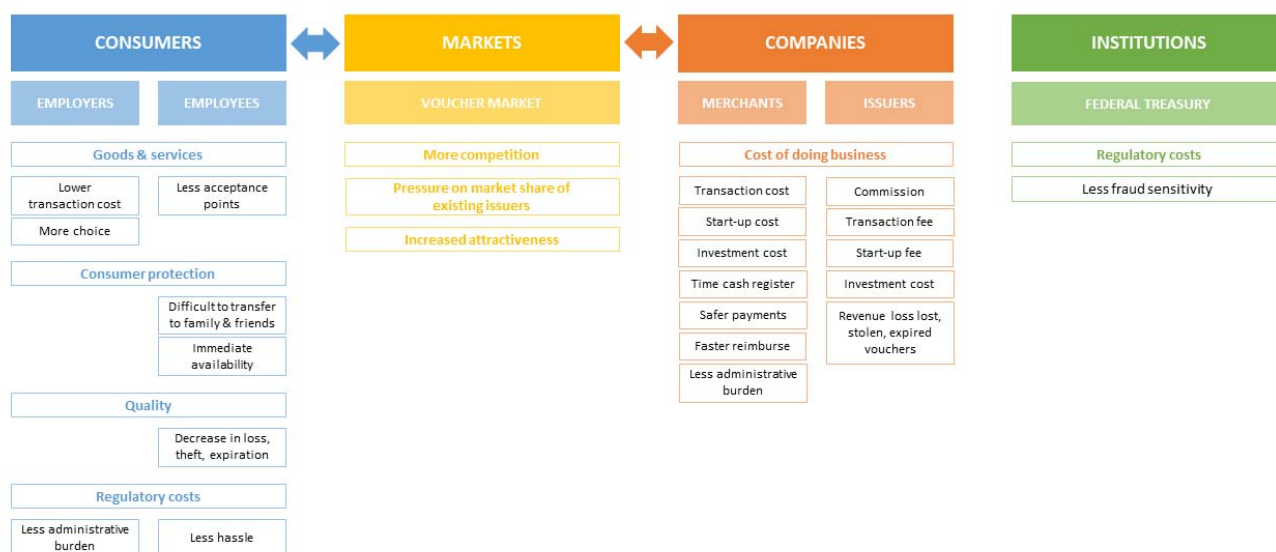
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How is each group impacted? (5/8)

- Food and food service merchants:
 - Start-up and transaction costs
 - Administrative burdens/compliance costs
 - Stimulation of turnover and employment
- Voucher market:
 - Suboptimal level of competition, which ups prices
- Federal Treasury of Belgium:
 - Fraud sensitive system

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Visual display of stakeholders and impacts



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How will the problems evolve?



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How will the problems evolve? (6/8)

- The problems are likely to stay the same or even deteriorate:
 - Percentage of lost/stolen/expired meal vouchers:
 - 2011: 0.3%
 - 2014: 0.5%
 - Transaction costs haven't changed over the last 5 years
 - A survey by the issuers into the satisfaction of the meal voucher system showed that there is an increasing number of complaints about compliance costs

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Get to a concise formulation of the central problem



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Define the central problem (7/8)

- **Costs for meal vouchers are too high**
 - As there are only 2 players (certified issuers), competition is weak. One of the results is that official points of acceptance have to pay high start-up and transaction costs (2%), impacting the profitability of merchants.
 - A second result is that employers have to pay high service and delivery costs, impacting the profitability of employers.

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Define the central problem (7/8)

- **The market for vouchers is functioning improperly**
 - As there are only 2 players (certified issuers), competition is weak. One of the results is that official points of acceptance have to pay high start-up and transaction costs (2%), impacting the profitability of merchants.
 - A second result is that employers have to pay high service and delivery costs, impacting the profitability of employers.

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Define the central problem (7/8)

- **There are restrictions of consumption**
 - 0.5% of all meal vouchers get lost, stolen and/or expired, which corresponds to a value of 1,600,000,000 euros. As meal vouchers are non-refundable, this impacts the purchasing power of consumers as well as the turnover for food and food service merchants.
 - Meal vouchers can only be spend in Belgium, again restricting consumption.

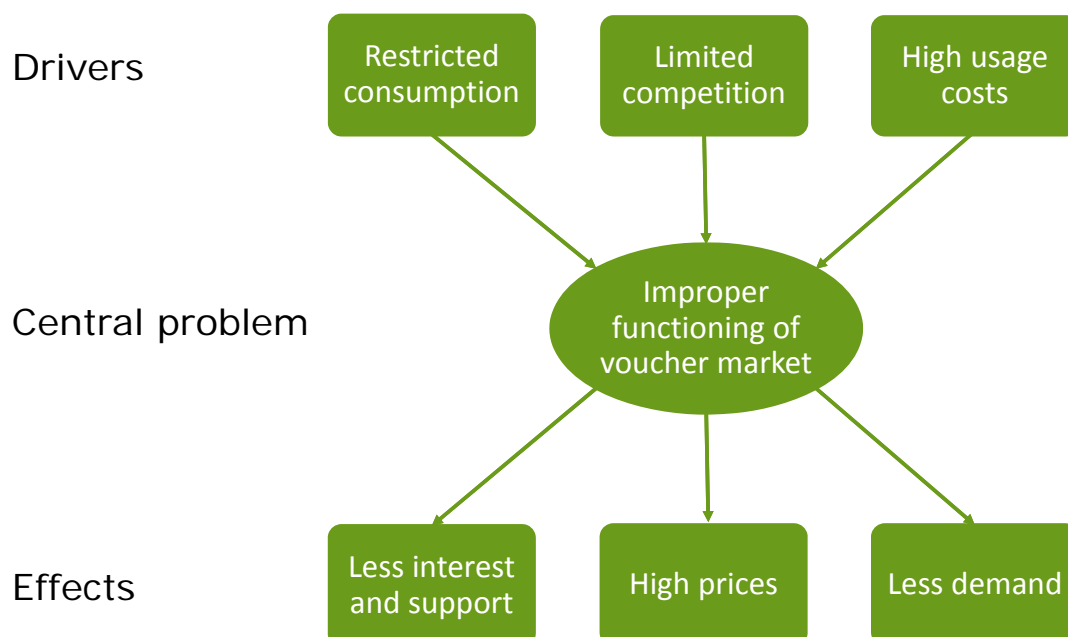
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Develop a problem tree



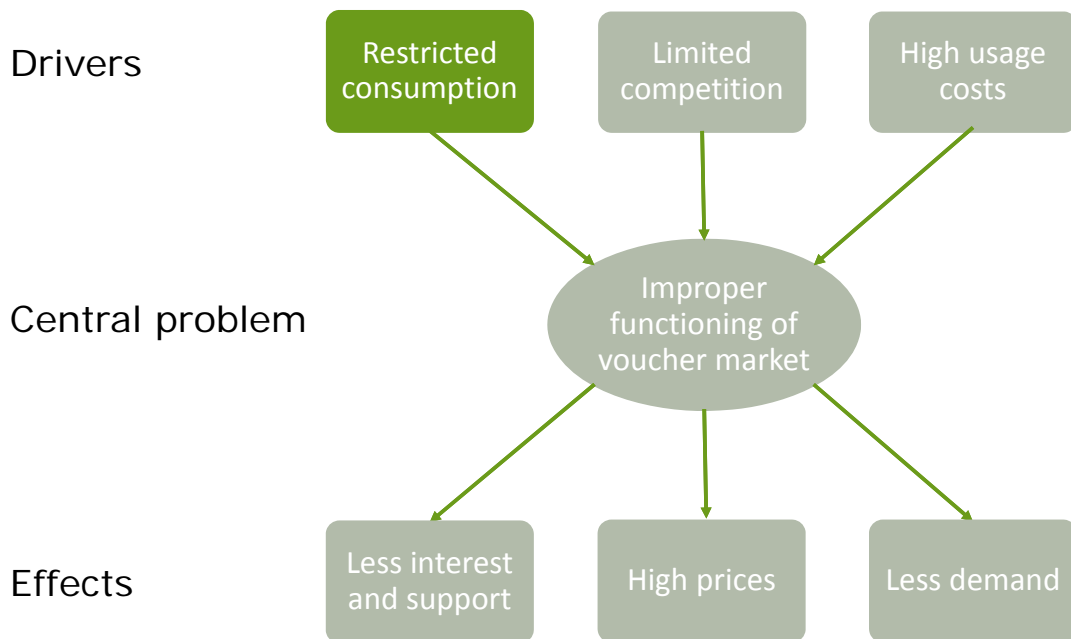
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General problem tree (8/8)



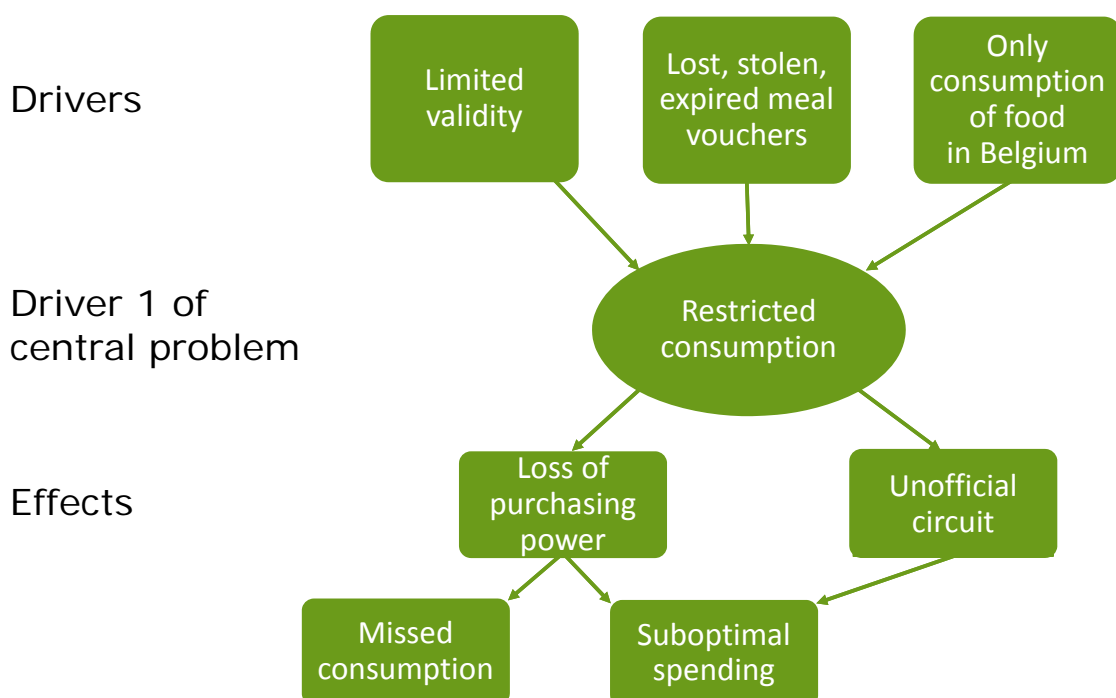
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General problem tree



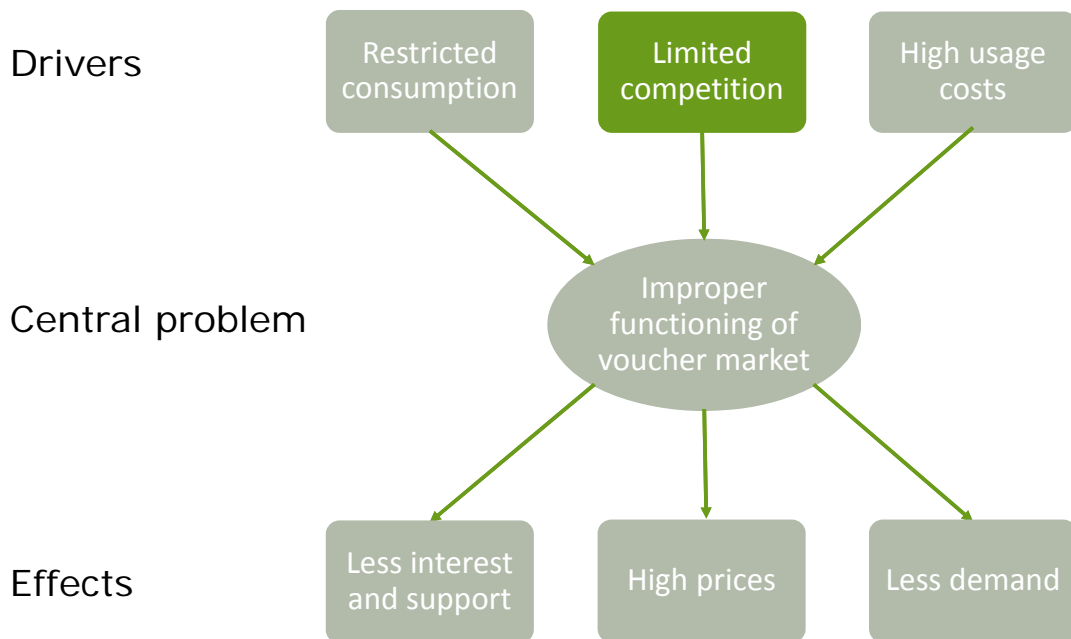
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Underlying problem tree #1



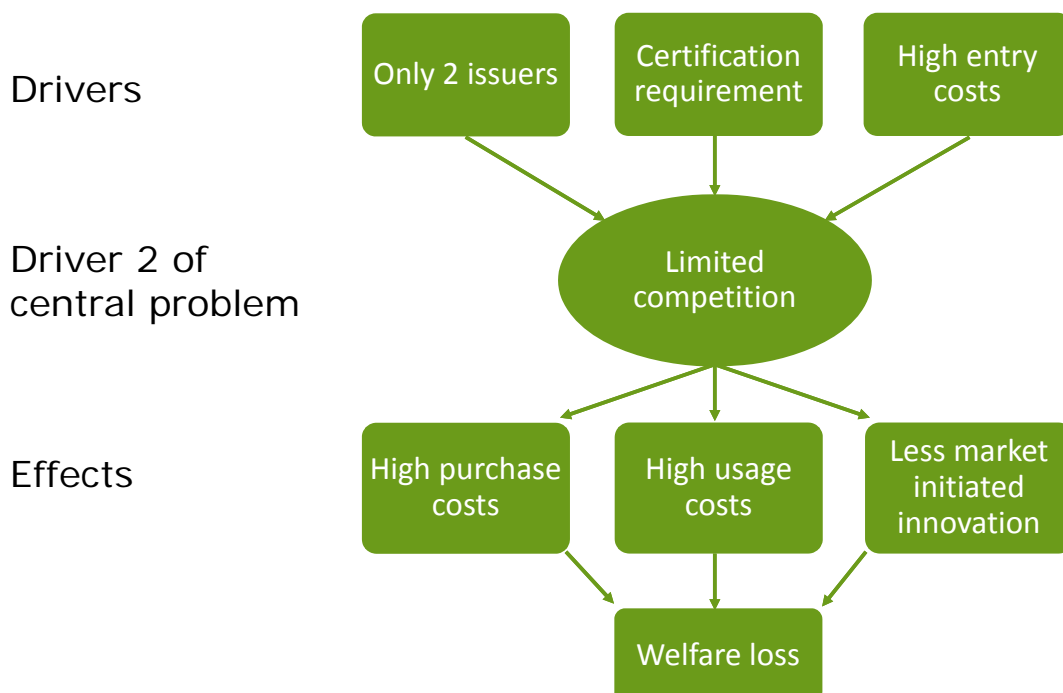
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General problem tree



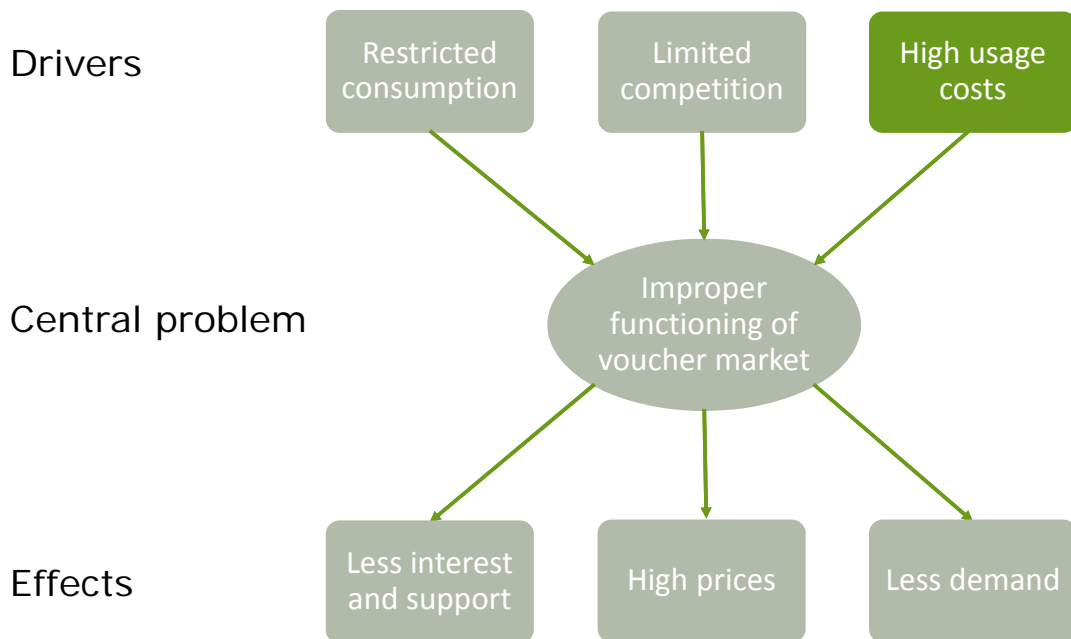
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Underlying problem tree #2



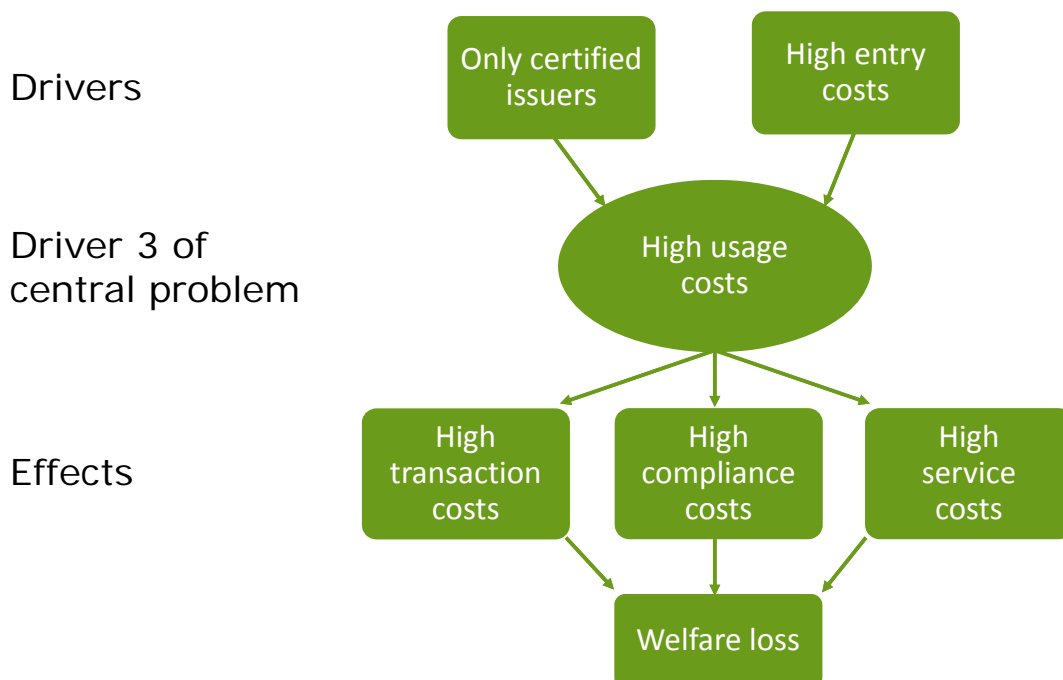
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General problem tree



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Underlying problem tree #3



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 **Assignment 1****Objectives**

Carefully read the general information and answer the questions.

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Assignment 1: Objectives

- 1) What could be possible policy objectives of a future government intervention?
 - a) What could be the **general** objectives of a future intervention?
 - b) What could be the **specific** objectives of a future intervention?

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What general objectives should a policy intervention address?



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Possible policy objectives

- **General objectives:**
 - Reduce consumer restrictions
 - Improve competition on the market
 - Reduce costs
 - ...

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For each general objective, what specific objectives can a policy intervention address?

- Reduce consumer restrictions
- Improve competition on the market
- Reduce costs



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Reduce consumer restrictions

- **Specific objectives (examples):**
 - Reduce the percentage of lost/stolen/expired meal vouchers by 50% by 2022
 - Extend the expiration date of the meal vouchers
 - Fight against the unofficial circuit
 - ...

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Improve competition on the market

- **Specific objectives (examples):**
 - Double the number of players (issuers) on the market of meal vouchers by 2022
 - Negotiate an agreement with neighbouring countries so that meal vouchers can be spend abroad
 - ...

Reduce costs

- **Specific objectives (examples):**
 - Compliance costs for employers have to decrease by 25% by the end of 2022
 - Transaction costs for merchants have to be reduced to a maximum of 0.5% of sales with meal vouchers
 - Merchants who become an official acceptance point, can deduct 50% of their start-up of their corporate tax
 - ...

Assignment 1

Policy options

Identify at least three possible policy options to address the problems.

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Policy options

- 1) Do nothing
- 2) Introduce an electronic meal voucher system



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Policy options

- 1) Do nothing
- 2) Introduce an electronic meal voucher system
- 3) Abolish the meal voucher system, but allow for extra net salary

Assignment 2

Impacts

Carefully read the general information and answer the questions.

Assignment 2: Impacts

- 1) What could be the impacts of the selected policy options?
- 2) Who are the affected stakeholders?
- 3) What are the benefits and costs of the options?
- 4) Quantification and/or monetisation of impacts
- 5) Qualitative description of impacts

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What could be general impacts of the policy options?

Policy options:

- Do nothing
- Introduce electronic meal vouchers
- Abolish the meal voucher system, net salary instead



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Impacts of policy options (1/5)

Do nothing:

- High administrative burdens/compliance costs
- Welfare loss
- Unofficial circuit
- Restricted competition
- Restricted consumption
- ...

Impacts of policy options (1/5)

Electronic meal voucher system:

- Lower administrative burdens/compliance costs
- Unofficial circuit will diminish
- Investment costs for issuers and possibly also for merchants (no electronic payment option)
- Reduced risk of loss or theft of meal vouchers
- ...

Impacts of policy options (1/5)

Abolition of meal vouchers, net salary instead:

- Loss of non-taxable/deductible social benefit
- No need for compliance (hassle)
- Disappearance of start-up, service, delivery, transaction costs
- Loss of jobs at issuing companies, and food and food service merchants
- ...

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Who are the affected stakeholders?

Policy options:

- Do nothing
- Introduce electronic meal vouchers
- Abolish the meal voucher system, net salary instead



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Who are the affected stakeholders? (2/5)

- Consumers:
 - Direct consumers: Employers
 - End consumers: Employees
- Companies:
 - Issuers
 - Food and food service merchants (of which 75% SME)
- Market: Voucher market
- Government: Treasury

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What benefits and costs are related to the policy options?

Policy options:

- Do nothing
- Introduce electronic meal vouchers
- Abolish the meal voucher system, net salary instead



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Benefits and costs of policy options (3/5)

Do nothing:

- Employers
 - **Benefits:** Social contact with employees, extra net reward for employees, exemption from social security contributions, deductible amount for corporate tax ...
 - **Costs:** Service costs, delivery costs, security costs, compliance costs, risk of theft/fraud ...
- Employees
 - **Benefits:** Non-taxable benefit, large network of acceptance points, easy to transfer to family/friends ...
 - **Costs:** Limited validity, risk of theft/loss, limited ways of spending (food, in Belgium) ...

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Benefits and costs of policy options (3/5)

Electronic meal voucher system:

- Employers
 - **Benefits:** Lower compliance costs, no delivery costs, no risk of burglary, exemption from social security contributions, deductible amount for corporate tax ...
 - **Costs:** Service costs, less social contact ...
- Employees
 - **Benefits:** Non-taxable benefit, less expired vouchers, reduced risk of loss/theft, lower compliance costs ...
 - **Costs:** Less acceptance points, harder to transfer to family/friends, less social contact with employer ...

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Abolition of meal vouchers, net salary instead:

- Employers
 - **Benefits:** No more compliance, no more service and delivery costs ...
 - **Costs:** Loss of the extra reward for employees, loss of deductible amount for corporate tax ...
- Employees
 - **Benefits:** No compliance costs, no lost/stolen/unused vouchers ...
 - **Costs:** Loss of the non-taxable benefit, loss of purchasing power ...

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Does Option 2 address the drivers of the general problem satisfactory?

General problem: Improper functioning of market

- Driver 1: Restricted consumption
- Driver 2: Limited competition
- Driver 3: High usage costs



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Underlying problem tree #1

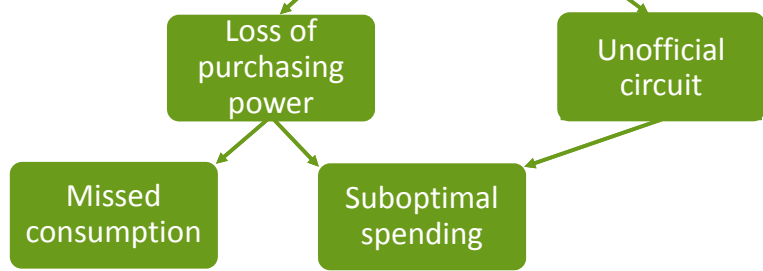
Drivers



Driver 1 of central problem



Effects



Underlying problem tree #2

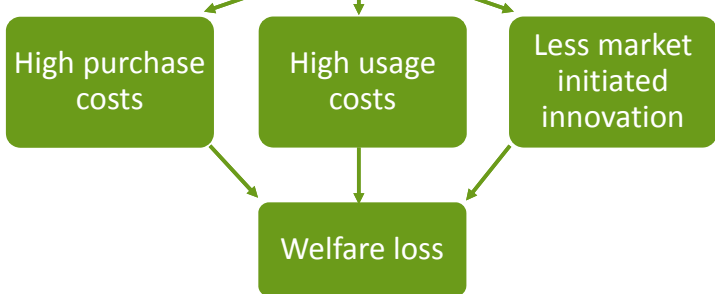
Drivers



Driver 2 of central problem



Effects

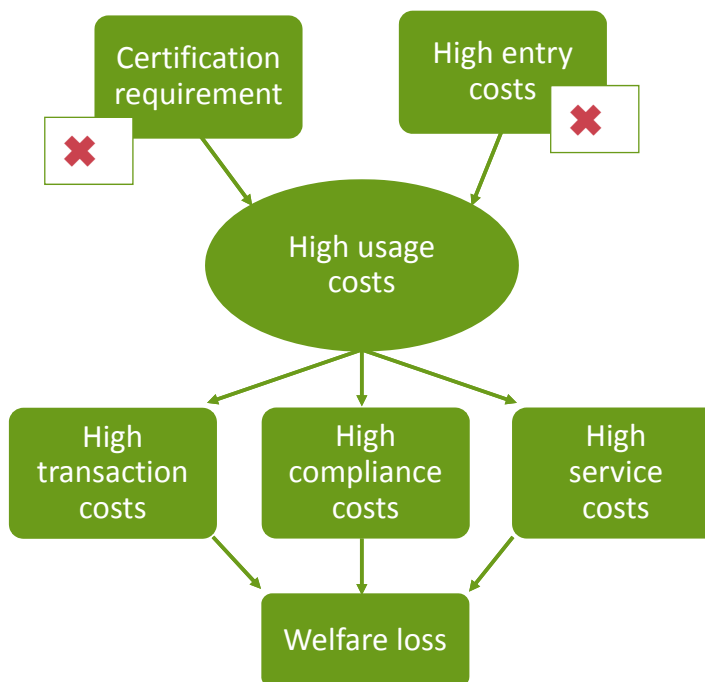


Underlying problem tree #3

Drivers

Driver 3 of central problem

Effects



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Which direct impacts can be quantified and/or monetised?

Policy options:

- Do nothing
- Introduce electronic meal vouchers
- Abolish the meal voucher system, net salary instead



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Quantification/monetisation of impacts (4/5)

Which direct impacts can be quantified and/or monetised?

- Administrative burdens/compliance costs
- Service costs
- Delivery costs
- Set-up costs
- Transaction costs
- Value of lost/stolen/expired meal vouchers

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Which impacts can not be quantified and/or monetised?

Policy options:

- Do nothing
- Introduce electronic meal vouchers
- Abolish the meal voucher system, net salary instead



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Qualitative description of impacts (5/5)

Which relevant impacts can not be quantified and/or monetised?

- Impact on employment at issuing companies, and food and food service merchants
- Impact on domestic consumption
- Impact (value) of increased competition, and its effects on costs
- Impact on VAT revenues for the federal Treasury
- Impact (value) of the ease of use of electronic meal vouchers
- ...

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Assignment 2

Impacts

Fill in and calculate the impacts that were considered to be quantifiable by making use of the table in the exercise bundle.



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 **Assignment 3****Measuring compliance costs**

Carefully read the information and measure the compliance costs for food and food service merchants by making use of the Standard Cost Model (SCM).

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Assignment 3: Measuring compliance costs **Assignment 3****Measuring compliance costs**

- 1) In the baseline scenario (paper meal vouchers)
- 2) In Option 2 (electronic meal vouchers)
- 3) In Option 3 (abolition of meal vouchers, net salary instead)



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Measuring compliance costs with the SCM

- **Debrief of the IA on meal vouchers:**
 - Assessed by the Belgian federal government (Agency for Administrative Simplification) in 2014
 - Time spent on IA: 2 to 3 months
 - Lessons learned:
 - Acquiring data + use of standard times and costs
 - Calculations/reporting
 - Interviews and meetings (stakeholder consultation)
 - Neutral party

Case study – Exercise: Electronic meal vouchers in Belgium

General information about meal voucher system in Belgium (baseline)

In Belgium, employers can give their employees a social benefit called meal vouchers (see picture). Initially, meal vouchers were introduced to compensate employees for self-provided lunch meals consumed during working hours. In other words, the meal vouchers offered an alternative for those SMEs that could not provide a company restaurant. Furthermore, the initial goal was to stimulate citizens to buy healthy food and therefore improving the overall health of the population.



Nowadays, meal vouchers are foremost a popular alternative to pay raises as they accommodate advantages for both employers and employees. Thanks to the meal voucher system, an employer can grant up to 1 760 euros of net purchasing power per year per employee (a maximum of 10.80 euros per day worked, of which 2 euros is borne by the employee and 8.60 euros by the employer). Employers are exempted from social security contributions on the meal vouchers they give their employees. Furthermore, the employer can deduct a certain amount of money per meal voucher from his corporate tax declaration. Employees enjoy an increase in their purchasing power, as receiving a meal voucher worth for example 8,00 euros only costs them 1,09 euros in foregone wage. Employees are also exempted from social security contributions on meal vouchers, and do not have to pay taxes on this social benefit. Meal vouchers can be used to pay for food in supermarkets, butchers, bakeries etc. (food merchants) and to pay for meals in restaurants, diner's, eateries etc. (food service or catering merchants) on Belgian territory. The meal vouchers thus allow for a stimulation of turnover and employment for the food merchants and food service merchants.

In the current situation, meal vouchers are paper-based. These paper meal vouchers can be seen as checks or cash banknotes. An employer who wishes to grant his employees meal vouchers, has to order the meal vouchers at one of the two certified issuing companies (Edenred and Sodexo). The amount of meal vouchers the employer orders, corresponds to the number of days worked by each employee in that month. This causes a considerable amount of administrative burdens/compliance costs for the employers and employees. Furthermore, employers have to pay for the delivery of the paper meal vouchers (15 euros per month), as well as pay service costs to the issuers of the meal vouchers (125 euros per month). There are about 75 000 employers offering meal vouchers, which corresponds to 2 000 000 beneficiaries (employees). A paper meal voucher mentions the name of the beneficiary (employee), name of the company (employer), value of the check, and expiration date (valid for 6 months).

The total value of meal vouchers granted in one year in Belgium is 1 600 000 000 euros (2 000 000 beneficiaries, average value of a meal voucher of 8 euros, average amount of cheques per year of 100 per beneficiary). 0.5% of all paper meal vouchers get stolen, lost and/or expired, which

corresponds to a lost annual value of 8 000 000 euros. As the meal vouchers are non-refundable for employees (and employers), this impacts the purchasing power of consumers as well as the revenue of the food merchants and food service merchants. On the other hand, the publishers can keep the revenue they generated from selling the meal vouchers to their customers (the employers).

Meal vouchers are only accepted by official points of acceptance, which are food merchants and food service (catering) merchants with a contract with (one of) the two certified publishers. In Belgium, there are about 9 000 supermarkets, grocery stores, butchers, bakeries, cafes, restaurants, diner's and eateries that accept meal vouchers.

Per payment transaction, meal vouchers must be checked on the amount and validity and collected by the cashier of the food store or catering company. After closing time, all meal vouchers must be counted and sorted (by issuer) on a daily basis and sent to the issuers on a weekly basis. Every week, a confirmation of reimbursement of the amount of meal vouchers is sent to each merchant. This process causes a considerable amount of administrative burdens/compliance costs for the food merchants and food service merchants. It is estimated that the annual total compliance cost caused by the paper meal vouchers amounts to 10 900 euros per year for an average merchant. On average, a merchant will only receive around 70 000 euros of revenue due to the meal vouchers. Therefore, around 10% of the revenue is lost due to the compliance costs, impacting the profitability of the stores. Furthermore, as there are only 2 players (issuers) active in the voucher market, competition is weak. One of the results is that employers have to pay considerable delivery costs and service costs besides the purchase costs for meal vouchers. Market prices are thus too high and employers experience a loss of profitability. One of the other side effects of the high costs is an unofficial circuit: food merchants with no contract with an issuer also accept meal vouchers, do not invalidate them and use these meal vouchers themselves to pay for their own supplies.

Assignment 1

Carefully read the general information above and answer the following questions.

Problem analysis and definition

- 1) What are the problems regarding the meal voucher system? Why should they be considered as problems?
- 2) What are the drivers causing these problems?
- 3) Who are the affected actors (stakeholders)?
- 4) For each actor that is impacted, describe which specific groups are impacted.
- 5) For each group that is impacted, describe how this group is impacted.
- 6) How will the problems evolve without government intervention? Will matters get better, worse or stay the same?
- 7) What could be a concise formulation of the central problem?
- 8) Prepare a possible problem tree, including:
 - a. Problem drivers;
 - b. Central problem;
 - c. Effects.

Objectives

What could be possible policy objectives of a future intervention?

- a. What are general objectives of a future intervention?
- b. What are specific objectives of a future intervention?

Policy options

Identify at least three possible policy options to address the problems.

Information about the selected policy options

A) Baseline: Paper meal vouchers

After having received the paper meal vouchers, an employer has to sort the meal vouchers internally and has to make sure the meal vouchers reach their beneficiaries. This gives rise to compliance costs/administrative burdens of 3 200 euros per employer per year, and 100 euros per employee per year. Once spent, per payment transaction, meal vouchers must be checked (on amount and validity) and collected by the cashier of the food or food service merchant. Each opening day (there are 303 opening days in total), all meal vouchers must be counted and sorted (by issuer). This task is completed by a cashier. Depending on the size of the merchant, the paper meal vouchers are then either sent to the issuers by registered mail or by external courier. Small merchants (e.g. grocery stores, butchers, bakeries and small local cafes, bars and restaurants) make up about 75% of all merchants, larger merchants (e.g. supermarkets and chains of restaurants) account for the remaining 25% of the merchants. Small merchants send their paper meal vouchers by registered mail, larger merchants by courier. In both cases, an administrative employee prepares the paper meal vouchers to be shipped. The paper meal vouchers are sent on a weekly basis (52 weeks) to both issuers. Every week, a confirmation of reimbursement of the amount of meal vouchers of the past week is sent by email to the merchants. Both at small and larger merchants, the confirmation is received by an administrative employee. These administrative activities result in compliance costs of 10 900 euros per merchant per year.

B) Option 2: Electronic meal vouchers

Electronic meal vouchers enable payments consistent with a bank or visa card (the cashier has to input the amount of electronic meal vouchers in the cash register per payment transaction). As a result, employers do not have to have the meal vouchers delivered any more. Employers also do not have to distribute the meal vouchers to their employees any more. This would lead to a decrease of the administrative burdens per employer per year to 2 527 euros, while administrative burdens per employee now will be 93 euros per year. For merchants, there is no need any more to collect, count, sort and send meal vouchers to the issuers, resulting in a reduction in administrative burdens per merchant per year to 3 391 euros. Nevertheless, a confirmation of reimbursement of the amount of collected meal vouchers is provided to the merchants on a weekly basis. It is expected that an electronic meal voucher system completely expels the unofficial circuit of payments with meal vouchers. Thanks to electronic meal vouchers, the share of lost, stolen and expired meal vouchers will drop from 0.5% to 0.2%.



The Belgian government will certify two additional issuers in order to improve the functioning of the market. Besides Edenred and Sodexo, E-kena and Monizze will be the third and fourth issuer of meal vouchers in Belgium. The four issuers estimate having to invest around 82 000 000 euros in IT systems and infrastructure to set up the electronic meal voucher system.



Nevertheless, official points of acceptance of electronic meal vouchers (food merchants and food service merchants) now have to pay a transaction cost of 2% of the value of the accepted meal vouchers to the issuers. This is higher than the transaction cost of electronic payments (e.g. the transaction cost for Maestro payments is only 0.5%). For purposes of ease and clarity, transaction costs will be disregarded during the remainder of the exercise. Merchants also have to pay a start-up cost of 50 euros per issuer in order to be technically ready to receive payments with electronic meal voucher cards. This cost only covers the electronic meal voucher system; costs for bank and visa card payments are not included. There is of course no delivery cost in the electronic meal voucher scenario, and service costs have declined from 125 euros per month to 75 euros per month.

C) Option 3: Abolition of meal vouchers, extra net salary instead

In a situation where meal vouchers are abolished and employees receive the value of the meal voucher benefit as extra net salary, there are no administrative activities left.

Assignment 2

Read the general information again, as well as the information about the selected policy options and answer the following questions.

Impacts

- 1) What could be the impacts of the policy options identified earlier?
- 2) Who is impacted (stakeholders)?
- 3) Try to consider the benefits and costs of the options?
- 4) Try to identify which direct impacts (benefits and costs) can be quantified and/or monetised?
- 5) Are there relevant impacts that are not susceptible to quantification or monetisation? In other words, are some impacts only susceptible to a qualitative description?

Assignment

Fill in and calculate the total annual amount of compliance and other costs for all affected actors under the Baseline, Option 2 and Option 3 by making use of the table on the next page. For the identification of costs, rely on the impacts that were considered to be quantifiable.

What will be the total amount of compliance and other costs for all affected actors under the three Options over a time span of 10 years?

Annual compliance costs and other costs for all affected actors under the Baseline, Option 2 and Option 3

	Compliance costs	Baseline Paper meal vouchers (do nothing)		Option 2 Electronic meal vouchers		Option 3 Abolition of meal vouchers	
		Compliance costs	EUR	Compliance costs	EUR	Compliance costs	EUR
Employers							
Employees							
Merchants							
Total			EUR		EUR		EUR
Other costs			Other costs Baseline		Other costs Option 2		Other costs Option 3
Employers							
Employees							
Merchants							
Issuers							
Total			EUR		EUR		EUR
Total costs			Total cost Baseline		Total cost Option 2		Total cost Option 3
Employers							
Employees							
Merchants							
Issuers							
Total			EUR		EUR		EUR

Assignment 3

Carefully read the general information and information about the selected benefits again and try to measure the quantifiable compliance costs for the food merchants and food service merchants.

Assignment

- 1) Use the SCM to calculate the annual compliance costs of the paper-based meal voucher system for food merchants and food service merchants in Belgium.
- 2) Use the SCM to calculate the annual compliance costs of the electronic meal voucher system for food merchants and food service merchants in Belgium. What is the total impact on the administrative burden of the implementation on a yearly basis?
- 3) What is the compliance cost for the merchants when the meal voucher system is abolished and employees receive the value of the meal voucher benefit as extra net salary?

Specific and general time measures and costs for paper and meal voucher system

Process and steps	Time
Paper-based meal voucher system	
All merchants: Receive, check and collect meal vouchers per transaction <i>by cashier</i>	7,5 seconds
Small merchants: Count and sort paper meal vouchers <i>by cashier</i> (daily)	6 minutes
Larger merchants: Count and sort paper meal vouchers <i>by cashier</i> (daily)	30 minutes
Small merchants: Send paper meal vouchers to issuer by registered mail, <i>preparation and delivery at post office by administrative aid</i>	16 minutes
Larger merchants: Send paper meal vouchers to issuer by courier, <i>preparation by administrative aid</i>	7,50 minutes
All merchants: Receive confirmation of reimbursement by email <i>by administrative aid</i>	Standard time
Electronic meal voucher system	
All merchants: Receive payment electronic meal vouchers per transaction <i>by cashier</i>	30 seconds
All merchants: Receive confirmation of reimbursement by email <i>by administrative aid</i>	Standard time

Table: Relevant time measures meal vouchers

Number of employees receiving meal vouchers <i>(no indication this will change due to electronic format)</i>	2 000 000
Number of employers granting meal vouchers to employees <i>(no indication this will change due to electronic format)</i>	75 000
Number of merchants accepting payments with meal vouchers, of which 75% is small or medium-sized, and 25% is larger	9 000
Total number of paper meal vouchers	300 000 000
Average number of meal vouchers used in 1 payment transaction	4

Table: General info meal vouchers

Receive an email or electronic document	1 minute
Send an email or electronic document	1 minute
Copy a document	2 minutes
Print a document	2 minutes

Table: Standard time measures

1 A4 page black-white	€ 0,11	z 0.47
Envelope	€ 0,05	z 0.22
Stamp	€ 0,70	z 3.02
Shipment by courier (total cost)	€ 7,55	z 32.56
Registered mail (total cost)	€ 14,50	z 62.54

Table: Standard costs (exchange rate EUR-PLN of 8 February, 2019)

See Standard Cost Model – Tab 'Setup' for hourly rates per profile.



Late Payments – Options and effects

Prof. Dr. Wim Marneffe



learning and development - consultancy - research

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Programme of the Day

Recap

- Late payments - Problem & Objectives

Theory

- Multi-criteria analysis

Exercise

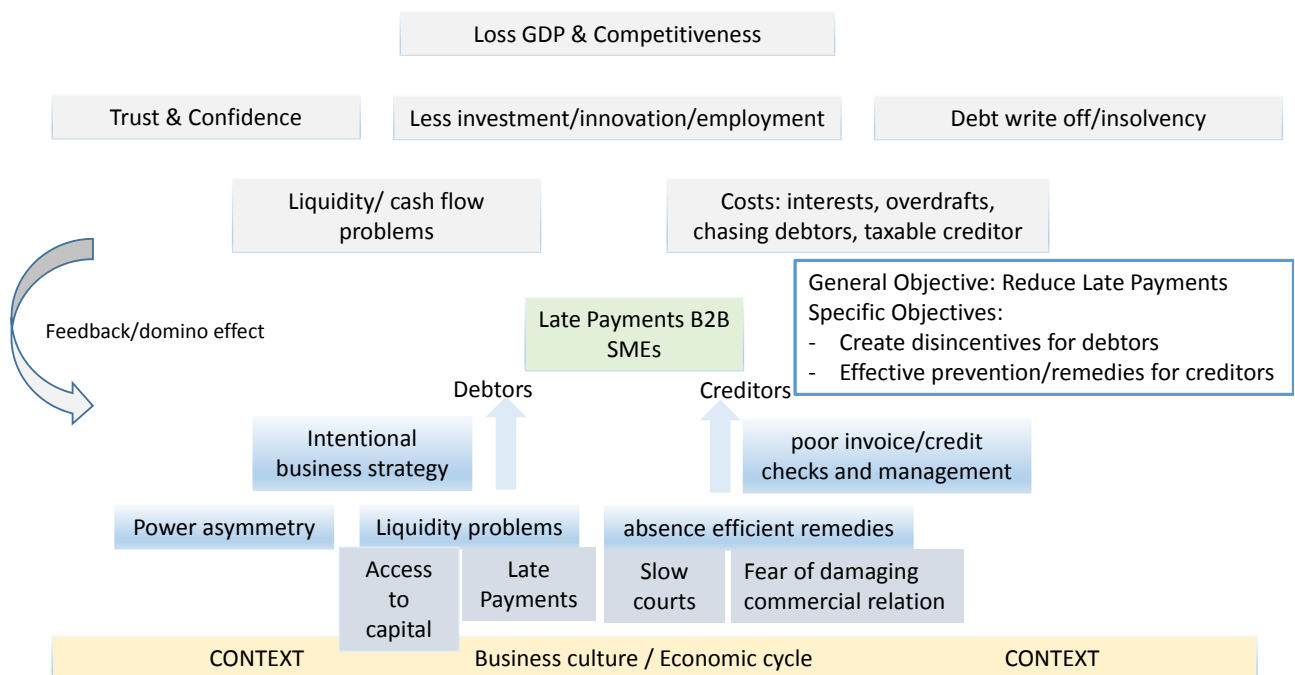
- Multi-criteria analysis

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Programme of the Day

- Recap • Late payments - Problem & Objectives
- Theory • Multi-criteria analysis
- Exercise • Multi-criteria analysis

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Policy options: recap from monday

5 steps to identify a realistic set of options

1. Construct a **baseline** from which the impacts of the policy options will be assessed;
2. Start by compiling a **wide range** of alternative policy options;
3. Identify the **most viable** options;
4. **Double check** the suitability of the retained policy options; and
5. **Describe in reasonable detail** the key aspects of the retained policy options to allow an in-depth analysis of the associated impacts.

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Analysis of Impacts

Keypoints

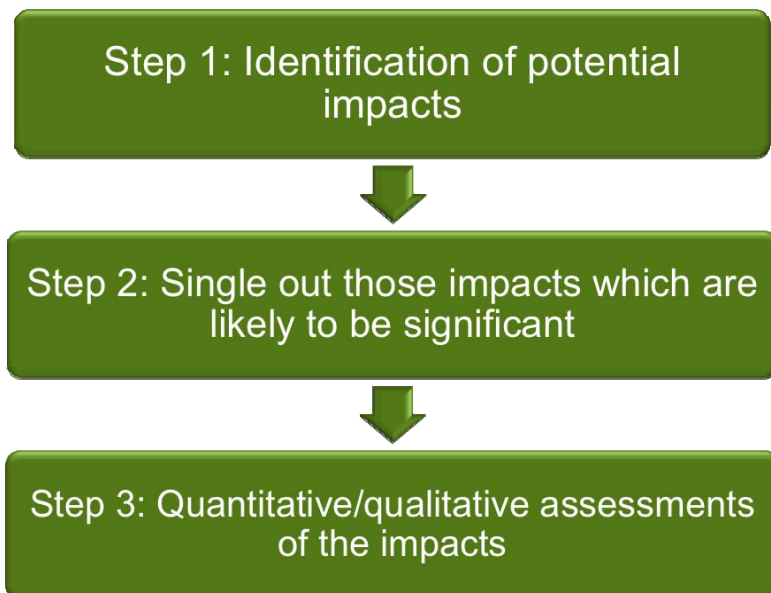
What are the likely impacts?

- Examine for **all** short-listed options
- Identify **direct/indirect** impacts across social, environmental, economic dimensions
- Tests exist for specific impacts (eg. Standard Cost Model and SMEs)
- Identify **who** is affected
- Consider compliance and implementation issues
- Assess impacts in **qualitative, quantitative, and monetary** terms where possible
- See what tools are available to undertake quantitative analysis

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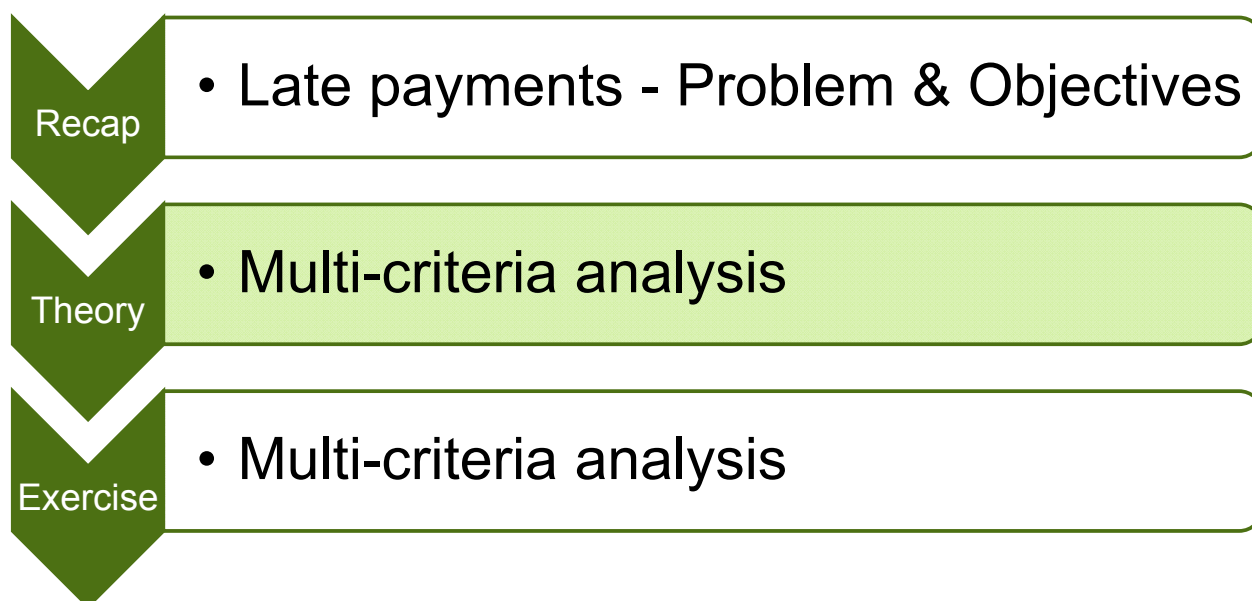
Analysis of Impacts

3-step approach



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Analysis of Impacts

Multi-criteria analysis

- ⑩ Different options can be compared based on **various criteria**

- ⑩ Not necessary to monetize effects.
 - *E.g.*, investing in a new operating system:
 - Investment cost: in euro
 - Update time saved: in hours
 - Number of hacks: count
 - Number of viruses prevented: count

- ⑩ Weighing the different aspects - a disadvantage of this method
 - The weighing has a large influence on the outcome

Analysis of Impacts

- ⑩ Step 1: determine **costs and benefits**

- ⑩ Step 2: standardization **row maximum**

- ⑩ Step 3: **multiply** by weights and sum up

- ⑩ Step 4: determine **preference rule**

Analysis of Impacts

MCA

	Option 1	Option 2	Option 3
Costs (million euro)	40	60	80
Update time saved (hours)	6	5	4
Number of hacks (count)	2	3	0
Number of viruses prevented (count)	4	5	2

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Analysis of Impacts

MCA Step 1 – Determine costs and benefits

	C/B	Option 1	Option 2	Option 3
Costs (million euro)	C	40	60	80
Update time saved (hours)	B	6	5	4
Number of hacks (count)	C	2	3	0
Number of viruses prevented (count)	B	4	5	2

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Analysis of Impacts

MCA Step 2 - standardization row maximum

	C/B	Option 1	Option 2	Option 3
Costs (million euro)	C	40/80	60/80	80/80
Update time saved (hours)	B	6/6	5/6	4/6
Number of hacks (count)	C	2/3	3/3	0/3
Number of viruses prevented (count)	B	4/5	5/5	2/5

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Analysis of Impacts

MCA – weigh set

Costs	0.4
Update time saved	0.2
Number of hacks	0.1
Number of viruses prevented	0.3
Total	1

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Analysis of Impacts

MCA Step 3 – multiply by weights and sum up

	B/C	Option 1	Option 2	Option 3
Costs (million euro)	C	-0.2	-0.3	-0.4
Update time saved (hours)	B	0.2	0.17	0.13
Number of hacks (count)	C	-0.07	-0.1	0
Number of viruses prevented (count)	B	0.24	0.3	0.12
Weighted Total		0.17	0.07	-0.15

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Analysis of Impacts

MCA Step 4 – determine preference rule

	B/C	Option 1	Option 2	Option 3
Costs (million euro)	C	-0.2	-0.3	-0.4
Update time saved (hours)	B	0.2	0.17	0.13
Number of hacks (count)	C	-0.07	-0.1	0
Number of viruses prevented (count)	B	0.24	0.3	0.12
Weighted Total		0.17	0.07	-0.15

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Comparison of Options

Comparison of Options

- ⑩ Across affected stakeholders
- ⑩ With regard to their effectiveness, efficiency and coherence
- ⑩ Compliance with proportionality principle

- ⑩ Aim: to facilitate the identification of a preferred option
 - Goal is NOT to identify a preferred option

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Comparison of Options

- ⑩ Weigh the **positive and negative** impacts of each option
- ⑩ Work with clear **evaluation criteria**
- ⑩ Compare the **quantified and qualitative** impacts
- ⑩ Compare the options **in terms of impacts** and evaluate them on criteria of **effectiveness, efficiency, consistency**
 - NB.: A 'full' Cost-Benefit Analysis is not always possible, necessary or appropriate
- ⑩ Provide **comparative tables**
- ⑩ **Rank** the options and, if possible, identify a **preferred option**
- ⑩ **Explain** trade-offs
- ⑩ But the **final policy choice** is a political one:
 - IA is an aid to political decision-making – NOT a substitute for it

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Comparison of Options

Sensitivity analysis

- ⑩ We face **uncertainty** about the predicted impacts and their values
- ⑩ The most plausible estimates comprise the **base case**
- ⑩ Purpose: show **how sensitive** predicted net benefits are to changes in assumptions
- ⑩ If the sign of net benefits does not change then our results are **robust**
- ⑩ Looking at all combinations of assumptions is **infeasible**

Comparison of Options

Sensitivity analysis

- ⑩ Partial sensitivity analysis
- ⑩ Worst/best case scenario
- ⑩ Monte Carlo

- ⑩ If robustness cannot be examined numerically, provide a qualitative discussion of the appropriateness to gauge the reliability of results

Comparison of Options

Partial sensitivity analysis

- ⑩ How do net benefits change when we **vary a single assumption** while holding all others constant?
- ⑩ We can also calculate the *breakeven value*: the probability at which net benefits switch sign

Comparison of Options

Best/Worst Case sensitivity analysis

- ⑩ **Base Case**: Assign the **most plausible** numerical values to unknown parameters to produce an estimate of net benefits that is thought to be most representative
- ⑩ **Worst Case**: Assign the **least favorable** of the plausible range of values to the parameters
 - conservative approach; check against optimistic forecasts; for risk averse decision-makers
- ⑩ **Best Case**: Assign the **most favorable** of the plausible range of values to the parameters

Comparison of Options

Monte Carlo sensitivity analysis

Partial and best/worst case sensitivity analyses have two limitations:

- They may not take account of all of the available information about the assumed values of parameters (i.e., worst and best cases are highly unlikely)
- These techniques do not directly provide information about the variance of the statistical distribution of the realized net benefits (i.e. one would feel more confident about an expected value with a smaller variance because it has a higher probability of producing net benefits near the expected value)

→ **Monte Carlo sensitivity analysis**

Comparison of Options

Monte Carlo sensitivity analysis

⑩ Playing games of chance many times to elicit a **distribution of outcomes**

⑩ Steps:

- Specify the **probability distributions** for all of the important uncertain quantitative assumptions (it is often reasonable to specify a uniform distribution when the distribution is unknown)
- Execute a trial by taking a **random draw** from the distribution for each parameter to arrive at a specific value for computing realized net benefits
- **Repeat** the trial many times
- The **average of the trials** provides an estimate of the expected value of net benefits

Programme of the Day

Recap

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Exercise

- Multi-criteria analysis

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Exercise 1

- ⑩ Take a look at the intervention logic presented together with the Objectives of EC Directive on Late Payments
- ⑩ Think about different policy measures/instruments to achieve the presented objectives.

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Exercise 1 - solution

Stricter payment terms	Instead of a maximum payment on time of 60 days, the period is reduced to 30 days
Transparency of payment practices	Measures for transparency of payment practices include legal obligations to periodically publish information on payment practices of companies in specific government databases and registries
Invoice management measures	Electronic invoicing are used to present and monitor transactional documents between one another and ensure the terms of their trading agreements are being met. Processing an invoice includes recording data and feeding it into bookkeeping systems
Alternative Dispute Resolution Systems	Negotiated settlements, arbitration and Alternative Dispute Resolution offer a faster and low-cost alternative to court proceedings. Ombudsmen or arbitration tools are useful in solving payment disputes and maintaining business relations
Administrative sanctions	An important means of supporting the enforcement of national legislation. Enforced by public authorities, direct intervention from public administration can overcome the 'fear factor' and help avoiding placing the responsibility to take action
Prompt payment codes	Codes and charters of good practice that encourage signatories to respect specific requirements for improving their payment practices
Corporate Social Responsibility	CSR measures are similar in nature to prompt payment codes as they encourage companies to take responsibility for the improvement of their business behavior, including payment practices
Credit Management Education	Effective credit management shortens the average collection period and maintains an optimal cash flow. Training and support may also make it more likely that SMEs use the remedies of the LPD
Unfair Contractual terms and the role of business organisations	Business organisations' representatives could have an essential role in helping SMEs with insufficient resources or lacking the knowledge of the relevant legal framework and available remedies to take actions against 'grossly unfair terms and practices'
Awareness raising activities	Events, seminars, information sessions and communication campaigns aiming to increase knowledge about issues related to late payment in B2B transactions, rights and remedies stemming from the LPD or other national measures
Labels and prizes	Labels and certificates that companies can receive for their good payment practices, based on positive financial figures, background information and good payment behavior
Working groups	For a and working groups that can be used by governments for discussing issues of late payment, reflecting on solutions and raising awareness of good practices
Compensation for recovery costs proportional to the size of the debt	LPD sets out a fixed sum of EUR 40 as compensation for recovery costs that the creditor is entitled to obtain from the debtor once interest has become payable
Legal provisions on the retention of title	Retention on title is the security right allowing the seller to maintain ownership of the sold good until the payer pays full price
Tax regulations	Two identified main models - a) indirectly sanctioning non-compliance by transferring the obligation to pay VAT from creditor to debtor or by preventing debtor to deduct VAT; b) allowing creditors to postpone payment of VAT until the debt is fully paid

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Exercise 2

- 10 The previous table presents potential solutions identified by the European Commission to tackle the problems of late payments
- 10 Read the description of the instruments and divide them in the following classification:
- do nothing
 - hard legally binding rules
 - soft regulation
 - education and information
 - economic instruments

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Exercise 2 - solution

Do nothing	
Hard legally binding rules	Stricter payment terms
	Transparency of payment practices
	Administrative sanctions
	Legal provisions on the retention of title
Soft regulation	Invoice management measures
	Alternative Dispute Resolution System
	Prompt payment codes
	Labels and prizes
Education and information	Corporate Social Responsibility
	Credit management education
	Unfair contractual terms and the role of business organisations
	Awareness raising activities
	Labels and prizes
	Working groups
Economic Instruments	Compensation for recovery costs proportional to the size of the debt
	Tax regulations

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Exercise 2 - solution

Type	Group of measures	Description
Main preventive measures	Stricter payment terms	Provisions fixing stricter payment terms or shorter maximum payment terms.
	Transparency of payment practices	Mandatory rules on disclosure of payment behavior for companies with revenues higher than EUR 50 million, or databases and registries where information on payment practices is stored or published and can be consulted by companies to check the business practices and solvency of their potential business partners.
Main remedial measures	Administrative sanctions	Administrative penalties for breaching rules on late payment.
Main initiatives contributing to changing business culture	Prompt payment codes	Codes or charters whereby signatories commit to respecting requirements such as payment terms.
	Corporate social responsibility	Initiatives whereby companies take responsibility for good payment practices.
	Credit management education	Education and training of companies on credit management.
Supportive measures in changing business culture	Awareness raising activities	Events, information campaigns to increase knowledge about issues related to unfair payment practices in transactions, rights and remedies stemming from the LPD and other national measures.
	Labels and prizes	Certificates to award companies with good payment practices.
	Working groups	Working group reflecting on solutions to issues with unfair payment practices.
Other measures	Compensation for recovery costs proportional to the size of the debt	Provisions setting out a compensation for recovery costs proportional to the amount of the debt.

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Exercise 4

10 Option 1: Polish cluster of measurements

- Stricter payment terms
- Transparency of payment practices
- Alternative Dispute Resolution System
- Administrative sanctions
- Compensation for recovery costs proportional to the size of the debt
- Tax regulations

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Exercise 4

Calculate the costs and benefits for Option 1 and allocate them to the correct cost/benefit types. Make use of the data sets you are given by the trainer.

Table 2: wages

Business	
Financial director	€100/hour
Corporate manager	€70/hour
Administrative employees	€40/hour
Lawyer	€90/hour
Negotiator	€60/hour
Institution	
Web design and developer	€45/hour
Administrative employees	€40/hour

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Exercise 4

Stricter payment terms

- ⑩ Due to stricter payment terms, 2 million SMEs should update their general contract terms. This process takes about 30 minutes for administrative employees.

Exercise 4 - solution

Stricter payment terms

- ⑩ Due to stricter payment terms, 2 million SMEs should update their general contract terms. This process takes about 30 minutes for administrative employees.

$$2,000,000 \text{ SMEs} * 0.5 \text{ hours} * 40 \text{ €/hour} = 40,000,000 \text{ (administrative burden)}$$

Exercise 4

Transparency of payment practices

The reporting obligation concerning the transparency of payment practices is only applicable for companies which have more than EUR 50 million revenue per years (18.000 firms in Poland). The reporting obligation is required quarterly. The first time, it takes about 2 hours of a corporate manager's time to get familiar with the reporting obligation. Drawing up the report takes 1 hour of a financial director's time and 3 hours of a corporate manager's time. To guarantee transparency of payment practices, governments databases and registries should be updated on regularly bases, which takes about 4 hours a week for a of a web design and developer professional's time.

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Exercise 4 - solution

Transparency of payment practices

⑩ Start-up:

- 18,000 firms * 2 hours * 70 €/hour = 2,520,000 (administrative burden)

⑩ Report:

- 18,000 firms * 4 quarters * (3 hours * 70 €/hour + 1 hour * 100 €/hour) * 10 years = 223,200,000 (administrative burden)

⑩ Government database:

- 4 hours * 45 €/hour * 52 weeks * 10 years = 93,600 (administrative burden)

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Exercise 4

Alternative Dispute Resolution System

The organisation of an alternative dispute resolution system has a start-up cost of EUR 100,000 for the government. These costs reflect the investment in computer software and a database in which the negotiators have to upload a report. They expect that on average this system negotiates between 7,500 SMEs per year. Instead of each firm hiring a lawyer, which spends on average 8 hours per case, there is only one negotiator per 2 firms. The negotiator spends on average 6 hours per dispute.

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Exercise 4 - solution

Alternative Dispute Resolution System

10 Start-up: 100,000 (operational)

10 Negotiation lawyer:

- $7,500 \text{ SMEs} * 8 \text{ hours} * 90\text{€/hour} * 10 \text{ years} = 54,000,000$ (enforcement)

10 Negotiation other:

- $3,750 \text{ SMEs} * 6 \text{ hours} * 60\text{€/hour} * 10 \text{ years} = 13,500,000$ (enforcement)

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Exercise 4

Administrative sanctions

Administrative sanctions requires a system in which the public administration can help to take action against the debtor. On average, 1,500 enterprises are controlled each year, and the following actions are undertaken:

- 200 warnings;
- 100 injunctions;
- 150 notifications of the application of administrative sanctions.

An average check takes about 2 hours per firm (administrative employee). On average, the total annual number of administrative fines amounted to EUR 5 million.

Exercise 4 - solution

Administrative sanctions

10 Control government:

- $1,500 \text{ firms} * 2 \text{ hours} * 40 \text{ €/hour} * 10 \text{ years} = 1,200,000$ (enforcement)

10 Control firm:

- $1,500 \text{ firms} * 2 \text{ hours} * 40\text{€/hour} * 10 \text{ years} = 1,200,000$ (enforcement)

10 Fines:

- $5,000,000 * 10 \text{ years} = 50,000,000$ (enforcement)

Exercise 4

Compensation for recovery costs proportional to the size of the debt

The Late Payment Directive sets out a fixed sum of EUR 40 as compensation for recovery costs that the creditor is entitled to obtain from the debtor once interest for late payment has become payable. On average an administrative government employee spends 5 hours a week to make sure the system works correctly. Yearly, the system results in EUR 2 million in compensation. A system of tax regulations requires companies to fill in the correct forms, which have to be checked by the government. On average it takes about half an hour for an administrative employee to per application for the company as well as the government. On average 7,500 applications are filled in per year.

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Exercise 4 - solution

Compensation for recovery costs proportional to the size of the debt

10 Control:

- $5 \text{ hours} * 40 \text{ €/hour} * 52 \text{ weeks} * 10 \text{ years} = 104,000$ (enforcement)

10 Compensation:

- $2,000,000 * 10 \text{ years} = 20,000,000$ (enforcement)

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Exercise 4

Tax regulation

A system of tax regulation requires the government to invest in a software and database infrastructure of EUR 250,000. On average a fulltime administrative government employee (38 hours/week) controls and registers the request for tax reduction. On average 30,000 applications for tax reductions are requested per year, which takes approximately 30 minutes per application of an administrative employee. On the one hand, the tax reduction results in less government revenues, but on the other hand in less costs for the companies. In other words this is a shift between the government and the companies. The average tax reduction amounts to EUR 300 per application

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Exercise 4 - solution

Tax regulation

⑩ **Start-up: 250,000 (operational)**

⑩ **Government database:**

- $38 \text{ hour} * 40\text{€/hour} * 52 \text{ weeks} * 10 \text{ years} = 790,400$ (administrative burden)

⑩ **Firm application:**

- $0.5 \text{ hour} * 40\text{€/hour} * 30,000 \text{ applications} * 10 \text{ years} = 6,000,000$ (administrative burden)

⑩ **Financial cost government:**

- $\text{€}300 * 30,000 \text{ applications} = 9,000,000$ (financial)

⑩ **Financial revenue firms:**

- $\text{€}300 * 30,000 \text{ applications} = 9,000,000$ (financial)

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Exercise 4

Benefits

⑩ Due to the various Polish measurements, trusts increased with 30%-points compared with the status quo option. Due to the measurements, the liquidity positions of the companies increased and led to more investments. In total the policy measures led to an increase of 20,000 employers. On average, the payment delay decreased with 15 days due to the various policy measures. This also led to less costs in loans and credits for companies, for a total of EUR 50 million per year.

⑩ Besides lawyer cost savings due to the organisation of an alternative dispute resolution system, other measures also reduce late payments. On average, it saves each 5,000 SME 4 hours of lawyer costs each year.

$$5,000 \text{ SMEs} * 4 \text{ hours} * 90 \text{ €/hour} * 10 \text{ years} = 18,000,000 \text{ (enforcement)}$$

Exercise 5

⑩ Think about which other measures could reduce late payments in order to strengthen Option 1

Exercise 6

⑩ While resolving exercise 3 we have noticed that the various Options generate multiple impacts. A good model to calculate the effect of such a Policy option is Multi-Criteria Analysis

⑩ For Options 1 and 2, carry out a multi-criteria analysis:

- Step 1: determine costs and benefits (see 3.)
- Step 2: standardization row maximum
- Step 3: multiply and sum up
- Step 4: determine preference rule

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Exercise 6

Step 1 : determine costs and benefits

	Option 0	Option 1	Option 2
BENEFITS			
<i>Market</i>			
Trust (scale 1-10)	0		5
<i>Society</i>			
Employment (jobs)	0		15,000
<i>Business</i>			
Delay (days)	0		20
Operation and financial (€)	0		75,000,000
Enforcement (€)	0		50,000,000
COSTS			
<i>Business</i>			
Administrative burden (€)	0		150,000,000
Operation and financial (€)	0		100,000,000
Enforcement (€)	0		75,000,000
<i>Institutions</i>			
Administrative burden (€)	0		0
Operation and financial (€)	0		5,000,000
Enforcement (€)	0		10,000,000

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Exercise 6 - solution

Step 1 : determine costs and benefits

Benefits

	Option 0	Option 1	Option 2
Benefits			
Market			
Trust (scale 1-10)	0	3	5
Society			
Employment (jobs)	0	20,000	15,000
Business			
Delay (days)	0	15	20
Operation and financial (€)	0	59,000,000	75,000,000
Tax regulations		9,000,000	
Overall: loans and credits		50,000,000	
Enforcement (€)	0	72,000,000	50,000,000
Alternative Dispute Resolution System		54,000,000	
Overall: lawyer costs		18,000,000	

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Exercise 6 - solution

Step 1 : determine costs and benefits

Costs of businesses

	Option 0	Option 1	Option 2
Costs			
Business			
Administrative burden (€)	0	271,720,000	150,000,000
Stricter payment terms		40,000,000	
Transparency of payment practices: start-up		2,520,000	
Transparency of payment practices: report		223,200,000	
Tax regulations		6,000,000	
Operation and financial (€)	0	0	100,000,000
Enforcement (€)	0	84,700,000	75,000,000
Alternative Dispute Resolution System		13,500,000	
Administrative sanctions: control		1,200,000	
Administrative sanctions: fines		50,000,000	
Compensation for cost recovery		20,000,000	

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Exercise 6 - solution

Step 1 : determine costs and benefits

Costs of institutions

	Option 0	Option 1	Option 2
Costs			
Institutions			
Administrative burden (€)	0	884,000	0
<i>Transparency of payment practices</i>		93,600	
<i>Tax regulations</i>		790,400	
Operation and financial (€)	0	9,350,000	5,000,000
<i>Alternative Dispute Resolution System</i>		100,000	
<i>Tax regulations: start-up</i>		250,000	
<i>Tax regulations: financial cost</i>		9,000,000	
Enforcement (€)	0	1,304,000	10,000,000
<i>Administrative sanctions</i>		1,200,000	
<i>Compensation for cost recovery</i>		104,000	

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Exercise 6 - solution

Step 1 : determine costs and benefits

Summary cost and benefits

	Option 0	Option 1	Option 2
BENEFITS			
Market			
Trust (scale 1-10)	0	3	5
Society			
Employment (jobs)	0	20,000	15,000
Business			
Delay (days)	0	15	20
Operation and financial (€)	0	59,000,000	75,000,000
Enforcement (€)	0	72,000,000	50,000,000
COSTS			
Business			
Administrative burden (€)	0	271,720,000	150,000,000
Operation and financial (€)	0	0	100,000,000
Enforcement (€)	0	84,700,000	75,000,000
Institutions			
Administrative burden (€)	0	884,000	0
Operation and financial (€)	0	9,350,000	5,000,000
Enforcement (€)	0	1,304,000	10,000,000

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Exercise 6

Step 2 : standardization row maximum

	Option 0	Option 1	Option 2
BENEFITS			
<i>Market</i>			
Trust (scale 1-10)	0.00		
<i>Society</i>			
Employment (jobs)	0.00		
<i>Business</i>			
Delay (days)	0.00		
Operation and Financial costs (€)	0.00		
Enforcement (€)	0.00		
COSTS			
<i>Business</i>			
Administrative burden (€)	0.00		
Operation (financial) (€)	0.00		
Enforcement (€)	0.00		
<i>Institutions</i>			
Administrative burden (€)	0.00		
Operation (financial) (€)	0.00		
Enforcement (€)	0.00		

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Exercise 6 - solution

Step 2 : standardization row maximum

	Option 0	Option 1	Option 2
BENEFITS			
<i>Market</i>			
Trust (scale 1-10)	0.00	0.60	1.00
<i>Society</i>			
Employment (jobs)	0.00	1.00	0.75
<i>Business</i>			
Delay (days)	0.00	0.75	1.00
Operation and Financial costs (€)	0.00	0.79	1.00
Enforcement (€)	0.00	1.00	0.69
COSTS			
<i>Business</i>			
Administrative burden (€)	0.00	1.00	0.55
Operation (financial) (€)	0.00	0.00	1.00
Enforcement (€)	0.00	1.00	0.89
<i>Institutions</i>			
Administrative burden (€)	0.00	1.00	0.00
Operation (financial) (€)	0.00	1.00	0.53
Enforcement (€)	0.00	0.13	1.00

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Exercise 6

Step 3: multiply by weights

Trust (scale 1-10)	10%
Employment (jobs)	20%
Business	
Delay (days)	10%
Administrative burden (€)	10%
Operation and financial (€)	10%
Enforcement (€)	10%
Institutions	
Administrative burden (€)	10%
Operation and financial (€)	10%
Enforcement (€)	10%

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Exercise 6 - solution

Step 3: multiply by weights

	Option 0	Option 1	Option 2
BENEFITS			
Market			
Trust (scale 1-10)	0.00	0.06	0.10
Society			
Employment (jobs)	0.00	0.20	0.15
Business			
Delay (days)	0.00	0.08	0.10
Operation and Financial costs (€)	0.00	0.08	0.10
Enforcement (€)	0.00	0.10	0.07
COSTS			
Business			
Administrative burden (€)	0.00	0.10	0.06
Operation (financial) (€)	0.00	0.00	0.10
Enforcement (€)	0.00	0.10	0.09
Institutions			
Administrative burden (€)	0.00	0.10	0.00
Operation (financial) (€)	0.00	0.10	0.05
Enforcement (€)	0.00	0.01	0.10

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Exercise 6 - solution

Step 4 : determine preference rule

	Option 0	Option 1	Option 2
BENEFITS			
<i>Market</i>			
Trust (scale 1-10)	0.00	0.06	0.10
<i>Society</i>			
Employment (jobs)	0.00	0.20	0.15
<i>Business</i>			
Delay (days)	0.00	0.08	0.10
Operation and Financial costs (€)	0.00	0.08	0.10
Enforcement (€)	0.00	0.10	0.07
COSTS			
<i>Business</i>			
Administrative burden (€)	0.00	0.10	0.06
Operation (financial) (€)	0.00	0.00	0.10
Enforcement (€)	0.00	0.10	0.09
<i>Institutions</i>			
Administrative burden (€)	0.00	0.10	0.00
Operation (financial) (€)	0.00	0.10	0.05
Enforcement (€)	0.00	0.01	0.10
TOTAL	0.00	0.10	0.12

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Exercise 7

What happens if the following parameters of the impacts in the multi-criteria analysis are modified?

- ⑩ MCA 2: change in weights: Trust: 10% → 20% and Employment: 20% → 10%

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Exercise 7 - solution

	MCA 1		MCA 2	
	Option 1	Option 2	Option 1	Option 2
BENEFITS				
Markets				
Trust (scale 1-10)	0.06	0.10	0.12	0.20
Society				
Employment (jobs)	0.20	0.15	0.10	0.08
Business				
Delay (days)	0.08	0.10	0.08	0.10
Operation and financial (€)	0.08	0.10	0.08	0.10
Enforcement (€)	0.10	0.07	0.10	0.07
COSTS				
Business				
Administrative Burden (€)	0.10	0.06	0.10	0.06
Operation and financial (€)	0.00	0.10	0.00	0.10
Enforcement (€)	0.10	0.09	0.10	0.09
Institutions				
Administrative Burden (€)	0.10	0.00	0.10	0.00
Operation and financial (€)	0.10	0.05	0.10	0.05
Enforcement (€)	0.01	0.10	0.1	0.10
TOTAL	0.10	0.12	0.06	0.15

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Exercise 7

What happens if the following parameters of the impacts in the multi-criteria analysis are modified?

- ⑩ MCA 3: transparency of payment practices: 30,000 companies yearly instead of 18,000 companies quarterly

Exercise 7 - solution

	MCA 1		MCA 3	
	Option 1	Option 2	Option 1	Option 2
BENEFITS				
Markets				
Trust (scale 1-10)	0.06	0.10	0.06	0.10
Society				
Employment (jobs)	0.20	0.15	0.20	0.15
Business				
Delay (days)	0.08	0.10	0.08	0.10
Operation and financial (€)	0.08	0.10	0.08	0.10
Enforcement (€)	0.10	0.07	0.10	0.07
COSTS				
Business				
Administrative Burden (€)	0.10	0.06	0.10	0.10
Operation and financial (€)	0.00	0.10	0.00	0.10
Enforcement (€)	0.10	0.09	0.10	0.09
Institutions				
Administrative Burden (€)	0.10	0.00	0.10	0.00
Operation and financial (€)	0.10	0.05	0.10	0.05
Enforcement (€)	0.01	0.10	0.01	0.10
TOTAL	0.10	0.12	0.11	0.08

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Exercise 7

What happens if the following parameters of the impacts in the multi-criteria analysis are modified?

⑩ MCA 4: tax regulations: 50,000 applications instead of 30,000

Exercise 7 - solution

	MCA 1		MCA 4	
	Option 1	Option 2	Option 1	Option 2
BENEFITS				
Markets				
Trust (scale 1-10)	0.06	0.10	0.06	0.10
Society				
Employment (jobs)	0.20	0.15	0.20	0.15
Business				
Delay (days)	0.08	0.10	0.08	0.10
Operation and financial (€)	0.08	0.10	0.09	0.10
Enforcement (€)	0.10	0.07	0.10	0.07
COSTS				
Business				
Administrative Burden (€)	0.10	0.06	0.10	0.05
Operation and financial (€)	0.00	0.10	0.00	0.10
Enforcement (€)	0.10	0.09	0.10	0.09
Institutions				
Administrative Burden (€)	0.10	0.00	0.10	0.00
Operation and financial (€)	0.10	0.05	0.10	0.03
Enforcement (€)	0.01	0.10	0.01	0.10
TOTAL	0.10	0.12	0.11	0.14

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Exercise 7

What happens if the following parameters of the impacts in the multi-criteria analysis are modified?

- ⑩ MCA 5: trust increases with 4.5 instead of 3

Exercise 7 - solution

	MCA 1		MCA 5	
	Option 1	Option 2	Option 1	Option 2
BENEFITS				
Markets				
Trust (scale 1-10)	0.06	0.10	0.09	0.10
Society				
Employment (jobs)	0.20	0.15	0.20	0.15
Business				
Delay (days)	0.08	0.10	0.08	0.10
Operation and financial (€)	0.08	0.10	0.08	0.10
Enforcement (€)	0.10	0.07	0.10	0.07
COSTS				
Business				
Administrative Burden (€)	0.10	0.06	0.10	0.06
Operation and financial (€)	0.00	0.10	0.00	0.10
Enforcement (€)	0.10	0.09	0.10	0.09
Institutions				
Administrative Burden (€)	0.10	0.00	0.10	0.00
Operation and financial (€)	0.10	0.05	0.10	0.05
Enforcement (€)	0.01	0.10	0.01	0.10
TOTAL	0.10	0.12	0.13	0.12

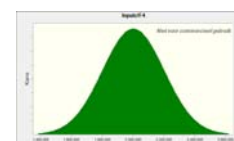
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Sensitivity analysis

Multivariate sensitivity analysis - inputs

10 Stricter payment terms

- Number of firms:
- Normal distribution: avg. 2,000,000 and std.dev. 200,000



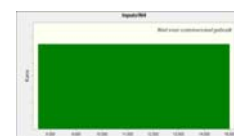
10 Transparency of payment practices

- Number of firms:
- Triangle distribution: min 16,000; avg. 18,000; max 20,000



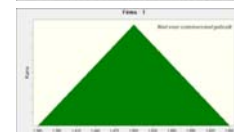
10 Alternative Dispute Resolution System

- Number of firms:
- Uniform distribution: min 7,500; max 15,000



10 Administrative sanctions

- Number of firms:
- Triangle distribution: min 1,350; avg. 1,500; max 1,650



10 Tax regulations

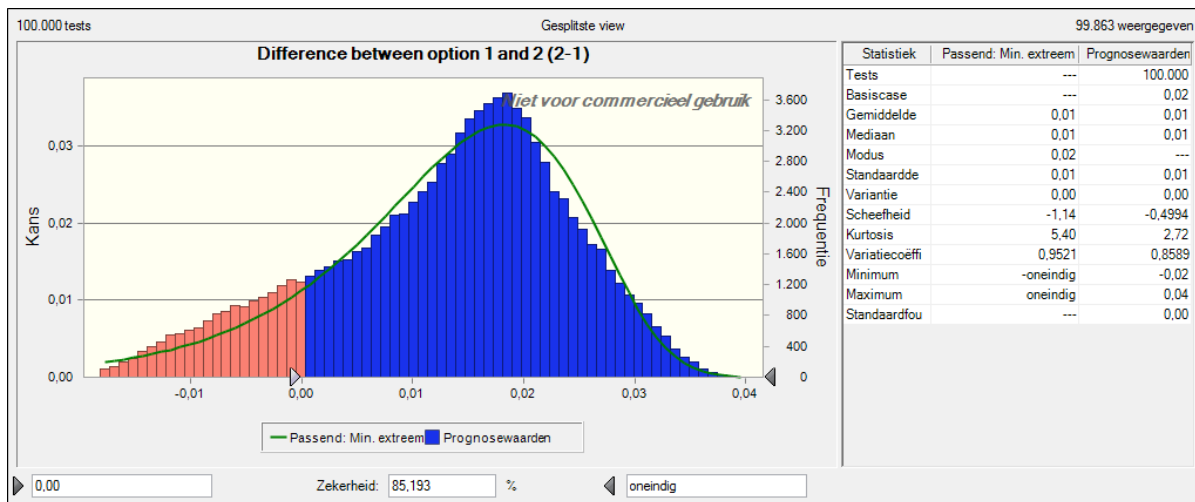
- Number of applications:
- Uniform distribution: min 20,000; max 50,000



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Exercise 7

Monte Carlo analysis

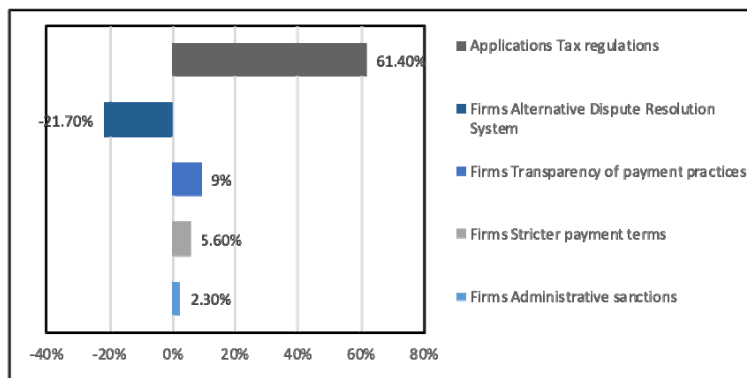


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Exercise 7

Monte Carlo analysis

Sensitivity chart



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10 Questions?



Case study – Exercise: Multi-criteria analysis – the Late Payment Directive

Part 1: assignments

1. Think about different policy measures/options to reduce late payments
2. Divide the list of 15 policy measures in Part 2 into the following classification:
 - a. Do nothing
 - b. Hard legally binding rules
 - c. Soft regulation
 - d. Education and information
 - e. Economic instruments
3. Identify the potential impacts for each of the 15 policy instruments in Part 3. Add a + if you expect a positive effect and a – if you expect a negative effect.
4. Take a look at option 1 as presented in your bundle. Calculate the costs and benefits for option 1 and allocate them to the correct cost/benefit types in Part 4.
5. Think about which other measures could reduce late payments in order to strengthen option 1
6. Carry out a multi-criteria analysis (MCA) in Part 4:
 - a. Step 1: determine costs and benefits (see 3.)
 - b. Step 2: standardization row maximum
 - c. Step 3: multiply and sum up
 - d. Step 4: determine preference rule
7. What happens if the weights/inputs of the impacts in the multi-criteria analysis are modified?



Part 2: Measures to reduce late payments

1. Stricter payment terms

The introduction of a maximum 60-day payment period in "asymmetrical" transactions between entrepreneurs, i.e. those in which the payer is a large enterprise and its SME contractor. If the parties reserve a deadline of more than 60 days in the contract (e.g. 120 days), this deadline will not apply and a 30-day statutory deadline will take place in its place. In turn, in transactions in which the public entity is a debtor (e.g. offices, public universities, police units, army etc.), a maximum 30-day payment period will apply, without the possibility of its extension.

2. Transparency of payment practices

Measures for transparency of payment practices include legal obligations to periodically publish information on payment practices of companies in specific government databases and registries.

3. Invoice management measures

Electronic invoicing (e-invoicing) is a form of electronic billing, which requires software. E-invoicing methods are used by trading partners, such as customers and their suppliers, to present and monitor transactional documents between one another and ensure the terms of their trading agreements are being met. The main responsibility of the accounts payable department is to ensure all outstanding invoices from its suppliers are approved, processed, and paid. Processing an invoice includes recording important data from the invoice and feeding it into the company's financial or bookkeeping systems. E-invoicing should facilitate the whole payment process.



4. Alternative Dispute Resolution System

Negotiated settlements, arbitration and Alternative Dispute Resolution (such as mediation or conciliation) might be an attractive solution for business disputes, as they offer a faster and low-cost alternative to court proceedings. Ombudsmen or arbitration tools are useful in solving payment disputes and maintaining business relations, and they are usually preferable to going to court.

5. Administrative sanctions

Administrative sanctions represent an important means of supporting the enforcement of national legislation on late payment. Given that administrative sanctions are enforced by public authorities, direct intervention from the public administration can overcome the 'fear factor' and helps to avoid placing the responsibility to take action against the debtor on the creditor.

6. Prompt payment codes

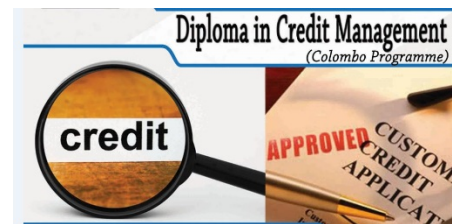
Codes and charters of good practice encourage signatory companies to respect specific requirements for improving their payment practices.

7. Corporate social responsibility

Corporate social responsibility measures are similar in nature to prompt payment codes as they encourage companies to take responsibility for the improvement of their business behaviour, including payment practices.

8. Credit management education

Effective credit management shortens the average collection period and maintains an optimal cash flow, thus reducing the risk of default and increasing the potential for growth. Training and support may also make it more likely that SMEs use the remedies of the Late Payment Directive.



9. Unfair contractual terms and the role of business organisations

Business organisations' representatives could have an essential role in helping SMEs with insufficient resources or lacking the knowledge of the relevant legal framework and available remedies to take action against 'grossly unfair terms and practices'.

10. Awareness raising activities

Awareness-raising activities (events, seminars, information sessions and communication campaigns) aim to increase knowledge about issues related to late payment in B2B transactions, rights and remedies stemming from the LPD or other national measures.

11. Labels and prize

Based on positive financial figures, background information and good payment behaviour, companies can receive a label/certificate for their good payment practices. The companies provide the information to the government and they decide whether or not they receive a label/certificate.



12. Working groups

Governments could use fora and working groups for discussing the issues of late payment, reflecting on solutions and raising awareness of good practices.

13. Compensation for recovery costs proportional to the size of the debt

The Late Payment Directive sets out a fixed sum of EUR 40 as compensation for recovery costs that the creditor is entitled to obtain from the debtor once interest for late payment has become payable.

14. Legal provisions on the retention of title

The retention of title constitutes a security right that allows the seller to maintain the ownership on the sold good until the buyer has paid the full price. The clause might also establish that the transfer of the ownership happens only once the payment has been performed.

15. Tax regulations

Tax regulations can be used to tackle unfair payment behaviour. Two main models have been identified:

- a. Tax regimes that indirectly sanction non-compliant businesses by transferring the obligation to pay VAT from the creditor to the debtor (e.g. in Czech Republic), or by preventing the debtor from deducting the VAT in case of an unpaid invoice or violation of the payment periods set out by law (e.g. in Slovenia).
- b. Tax regimes that allow creditors to postpone the payment of VAT until the debtor has fully carried out the monetary obligations or obtained tax adjustments.



Part 3: Potential impacts for each of the 15 policy instruments

Table 1: Potential impacts for each policy instrument

	Do nothing	Stricter payment terms	Transparency of payment practices	Invoice management measures	Alternative Dispute Resolution System	Administrative sanctions	Prompt payment codes	Corporate social responsibility
Society								
Employment, investment, economic growth								
Markets								
Trust								
Companies								
Information costs								
Compliance costs								
Administrative burdens								
Start-up or one-off costs								
Operational or recurring costs								
Financial cost: interest								
Delay costs								
Enforcement costs								
Institutions								
Administrative costs								
Operational costs								
Enforcement costs								
Monitoring								
Inspection								
Adjudication								
Litigation								

Table 2: Potential impacts for each policy instrument (cont.)

	Credit management education	Unfair contractual terms and the role of business organisations	Awareness raising activities	Labels and prizes	Working groups	Compensation for recovery costs proportional to the size of the debt	Legal provisions on the retention of title	Tax regulations
Society								
Employment, investment, economic growth								
Markets								
Trust								
Companies								
Information costs								
Compliance costs								
Administrative burdens								
Start-up or one-off costs								
Operational or recurring costs								
Financial cost: interest								
Delay costs								
Enforcement costs								
Institutions								
Administrative costs								
Operational costs								
Enforcement costs								
Monitoring								
Inspection								
Adjudication								
Litigation								

Part 4: Multi-criteria analysis (MCA)

The multi-criteria analysis exists of different options. In this case option 0 is the status quo, which used as benchmark for other options. The benefits and costs of other options should be compared with option 0. In other words, the impact of the different measures in option 1 and 2 are marginal effects relative to doing nothing in option 0. You have to calculate the marginal cost and benefits of the first option. The costs and benefits of option 2 are already calculated in order to carry out a MCA.

- **Option 1: Polish cluster of measurements**

Option 1 exists of the Polish measurements that are currently active:

- Stricter payment terms
- Transparency of payment practices
- Alternative Dispute Resolution System
- Administrative sanctions
- Compensation for recovery costs proportional to the size of the debt
- Tax regulations

In order to calculate the impact of the Polish measurements, we take a time span of 10 years into account. The wages of the different stakeholder are mentioned in Table 2.

Due to stricter payment terms, 2 million SMEs should update their general contract terms. This process takes about 30 minutes for administrative employees.

The reporting obligation concerning the transparency of payment practices is only applicable for companies which have more than EUR 50 million revenue per years (18.000 firms in Poland). The reporting obligation is required quarterly. The first time, it takes about 2 hours of a corporate manager's time to get familiar with the reporting obligation. Drawing up the report takes 1 hour of a financial director's time and 3 hours of a corporate manager's time. To guarantee transparency of payment practices, governments databases and registries should be updated on regularly bases, which takes about 4 hours/week for a of a web design and developer professional's time.



The organisation of an alternative dispute resolution system has a start-up cost of EUR 100,000 for the government. These costs reflect the investment in computer software and a database in which the negotiators have to upload a report. It is expected that on average an alternative dispute resolution system is used by 7,500 SMEs per year. Instead of each firm hiring a lawyer, which spends on average 8 hours per case, there is only one negotiator per 2 firms. The negotiator spends on average 6 hours per dispute and is paid by the companies.

Administrative sanctions requires a system in which the public administration can help to take action against the debtor. On average, 1,500 enterprises are controlled each year, and the following actions are undertaken:

- 200 warnings;
- 100 injunctions;
- 150 notifications of the application of administrative sanctions.

An average check takes about 2 hours per firm (administrative employee) for the government as well as the firm. On average, the total annual number of administrative fines amounted to EUR 5 million.



The Late Payment Directive sets out a fixed sum of EUR 40 as compensation for recovery costs that the creditor is entitled to obtain from the debtor once interest for late payment has become payable. On average an administrative government employee spends 5 hours a week to make sure the system works correctly. Yearly, the system results in EUR 2 million in compensation. A system of tax regulations requires companies to fill in the correct forms, which have to be checked by the government. On average it takes about half an hour for an administrative employee to per application for the company as well as the government. On average 7,500 applications are filled in per year.

A system of tax regulation requires the government to invest in a software and database infrastructure of EUR 250,000. On average a fulltime administrative government employee (38 hours/week) controls and registers the request for tax reduction. On average 30,000 applications for tax reductions are requested per year, which takes approximately 30 minutes per application of an administrative employees. On the one hand, the tax reduction results in less government revenues, but on the other hand in less costs for the companies. In other words this is a shift between the government and the companies. The average tax reduction amounts to EUR 300 per application.

Table 2: wages

Business	
<i>Financial director</i>	€100/hour
<i>Corporate manager</i>	€70/hour
<i>Administrative employees</i>	€40/hour
<i>Lawyer</i>	€90/hour
<i>Negotiator</i>	€60/hour
Institution	
<i>Web design and developer</i>	€45/hour
<i>Administrative employees</i>	€40/hour

A survey of 1,000 Polish companies showed that these 6 Polish measurements increased trust with 30%-points compared to the status quo option. Due to the measurements, the liquidity positions of the companies increased and led to more investments. In total the policy measures will lead to an increase of 20,000 employers. On average, the payment delay decreased with 15 days due to the various policy measures. This also led to less costs in loans and credits for companies, for a total of EUR 50 million per year.

Besides lawyer cost savings due to the organisation of an alternative dispute resolution system, other measures also reduce late payments. On average, it saves each 5,000 SME 4 hours of lawyer costs each year.



- **Option 2: Extended Polish version**

Option 2 is an extension/modification of the current Polish policy concerning the Late Payment Directive. The impacts of this option are already calculated, which can be found in the multi-criteria analysis. Some examples of measurements are:

- Apply stricter payment terms of option 1 only to SMEs with a certain turnovers (e.g. 500,000 euro). This would reduce the administrative burden with 75%, since it would be only applicable to 500,000 firms instead of 2 million.
- We could also reduce the quarterly reporting obligation to a half-yearly obligations, which would also reduce the administrative burden significantly.
- Free advice for companies on late payments organised by the Polish government.
- An obligation to use an e-invoicing system would increase the operational costs.

4 steps in MCA

- Step 1: determine costs and benefits
- Step 2: standardization row maximum
- Step 3: multiply and sum up
- Step 4: determine preference rule

Step 1: determine costs and benefits

	Option 0	Option 1	Option 2
Benefits			
<i>Market</i>			
Trust (scale 1-10)	0		5
<i>Society</i>			
Employment (jobs)	0		15,000
<i>Business</i>			
Delay (days)	0		20
Operation and financial (€)	0		75,000,000
Enforcement (€)	0		50,000,000
Costs			
<i>Business</i>			
Administrative burden (€)	0		150,000,000
Operation and financial (€)	0		100,000,000
Enforcement (€)	0		75,000,000
<i>Institutions</i>			
Administrative burden (€)	0		0
Operation and financial (€)	0		5,000,000
Enforcement (€)	0		10,000,000

Step 2: standardization row maximum

	Option 0	Option 1	Option 2
Benefits			
<i>Market</i>			
Trust (scale 1-10)	0.00		
<i>Society</i>			
Employment (jobs)	0.00		
<i>Business</i>			
Delay (days)	0.00		
Operation and financial (€)	0.00		
Enforcement (€)	0.00		
Costs			
<i>Business</i>			
Administrative burden (€)	0.00		
Operation and financial (€)	0.00		
Enforcement (€)	0.00		
<i>Institutions</i>			
Administrative burden (€)	0.00		
Operation and financial (€)	0.00		
Enforcement (€)	0.00		

Step 3: multiply and sum up

The next steps include the assignment of criteria weights. These weights, that show the relative importance of criteria in the multi-criteria problem under consideration, can be determined by techniques such as literature review of comparable studies in the past, interviewing experts in the field, the Analytical Hierarchy Process¹, etc.

Table 3: Weights for MCA

Trust (scale 1-10)	10%
Employment (jobs)	20%
<i>Business</i>	
Delay (days)	10%
Administrative burden (€)	10%
Operation and financial (€)	10%
Enforcement (€)	10%
<i>Institutions</i>	
Administrative burden (€)	10%
Operation and financial (€)	10%
Enforcement (€)	10%

	Option 0	Option 1	Option 2
Benefits			
<i>Market</i>			
Trust (scale 1-10)	0.00		
<i>Society</i>			
Employment (jobs)	0.00		
<i>Business</i>			
Delay (days)	0.00		
Operation and financial (€)	0.00		
Enforcement (€)	0.00		
Costs			
<i>Business</i>			
Administrative burden (€)	0.00		
Operation and financial (€)	0.00		
Enforcement (€)	0.00		
<i>Institutions</i>			
Administrative burden (€)	0.00		
Operation and financial (€)	0.00		
Enforcement (€)	0.00		

¹ The Analytic Hierarchy Process (AHP), introduced by Thomas Saaty (1980), is an effective tool for dealing with complex decision making, and may aid the decision maker to set priorities and make the best decision. By reducing complex decisions to a series of pairwise comparisons, and then synthesizing the results, the AHP helps to capture both subjective and objective aspects of a decision. In addition, the AHP incorporates a useful technique for checking the consistency of the decision maker's evaluations, thus reducing the bias in the decision making process. (http://www.dii.unisi.it/~mocenni/Note_AHP.pdf)

Step 4: determine preference rule

	Option 0	Option 1	Option 2
Benefits			
<i>Market</i>			
Trust (scale 1-10)	0.00		
<i>Society</i>			
Employment (jobs)	0.00		
<i>Business</i>			
Delay (days)	0.00		
Operation and financial (€)	0.00		
Enforcement (€)	0.00		
Costs			
<i>Business</i>			
Administrative burden (€)	0.00		
Operation and financial (€)	0.00		
Enforcement (€)	0.00		
<i>Institutions</i>			
Administrative burden (€)	0.00		
Operation and financial (€)	0.00		
Enforcement (€)	0.00		
Total	0.00		

Part 5: Sensitivity analysis

Partial sensitivity analysis

- MCA 2: Change in weights: Trust: 10% → 20% and Employment: 20% → 10%
- MCA 3: transparency of payment practices: 30,000 companies yearly instead of 18,000 companies quarterly
- MCA 4: tax regulations: 50,000 applications instead of 30,000
- MCA 5: trust increases with 4.5 instead of 3

	MCA 1		MCA 2		MCA 3		MCA 4		MCA 5	
	Option 1	Option 2	Option 1	Option 2	Option 1	Option 2	Option 1	Option 2	Option 1	Option 2
Benefits										
Market										
Trust (scale 1-10)	0.06	0.10	0.12	0.20	0.06	0.10	0.06	0.10	0.09	0.10
Society										
Employment (jobs)	0.20	0.15	0.10	0.08	0.20	0.15	0.20	0.15	0.20	0.15
Business										
Delay (days)	0.08	0.10	0.08	0.10	0.08	0.10	0.08	0.10	0.08	0.10
Operation and financial (€)	0.08	0.10	0.08	0.10	0.08	0.10	0.09	0.10	0.08	0.10
Enforcement (€)	0.10	0.07	0.10	0.07	0.10	0.07	0.10	0.07	0.10	0.07
Costs										
Business										
Administrative burden (€)	0.10	0.06	0.10	0.06	0.10	0.10	0.10	0.05	0.10	0.06
Operation and financial (€)	0.00	0.10	0.00	0.10	0.00	0.10	0.00	0.10	0.00	0.10
Enforcement (€)	0.10	0.09	0.10	0.09	0.10	0.09	0.10	0.09	0.10	0.09
Institutions										
Administrative burden (€)	0.10	0.00	0.10	0.00	0.10	0.00	0.10	0.00	0.10	0.00
Operation and financial (€)	0.10	0.05	0.10	0.05	0.10	0.05	0.10	0.03	0.10	0.05
Enforcement (€)	0.01	0.10	0.1	0.10	0.01	0.10	0.01	0.10	0.01	0.10
Total	0.10	0.12	0.06	0.15	0.11	0.08	0.11	0.14	0.13	0.12

Multivariate sensitivity analysis

Inputs

- Stricter payment terms
 - Number of firms:
Normal distribution: avg. 2,000,000 and std.dev. 200,000
- Transparency of payment practices
 - Number of firms:
Triangle distribution: min 16,000; avg. 18,000; max 20,000
- Alternative Dispute Resolution System
 - Number of firms:
Uniform distribution: min 7,500; max 15,000
- Administrative sanctions
 - Number of firms:
Triangle distribution: min 1,350; avg. 1,500; max 1,650
- Tax regulations
 - Number of applications:
Uniform distribution: min 20,000; max 50,000

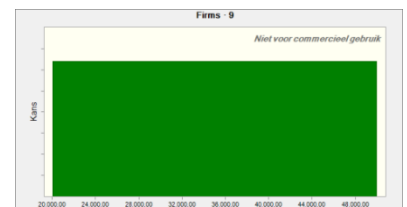
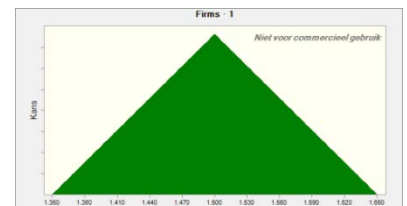
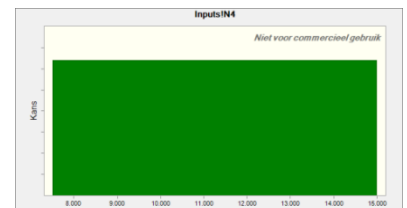
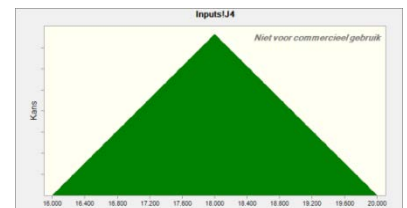
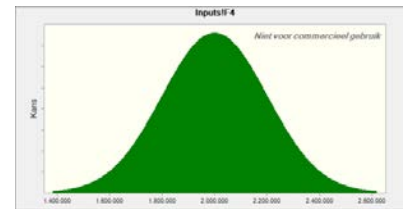


Figure 1: Monte Carlo analysis

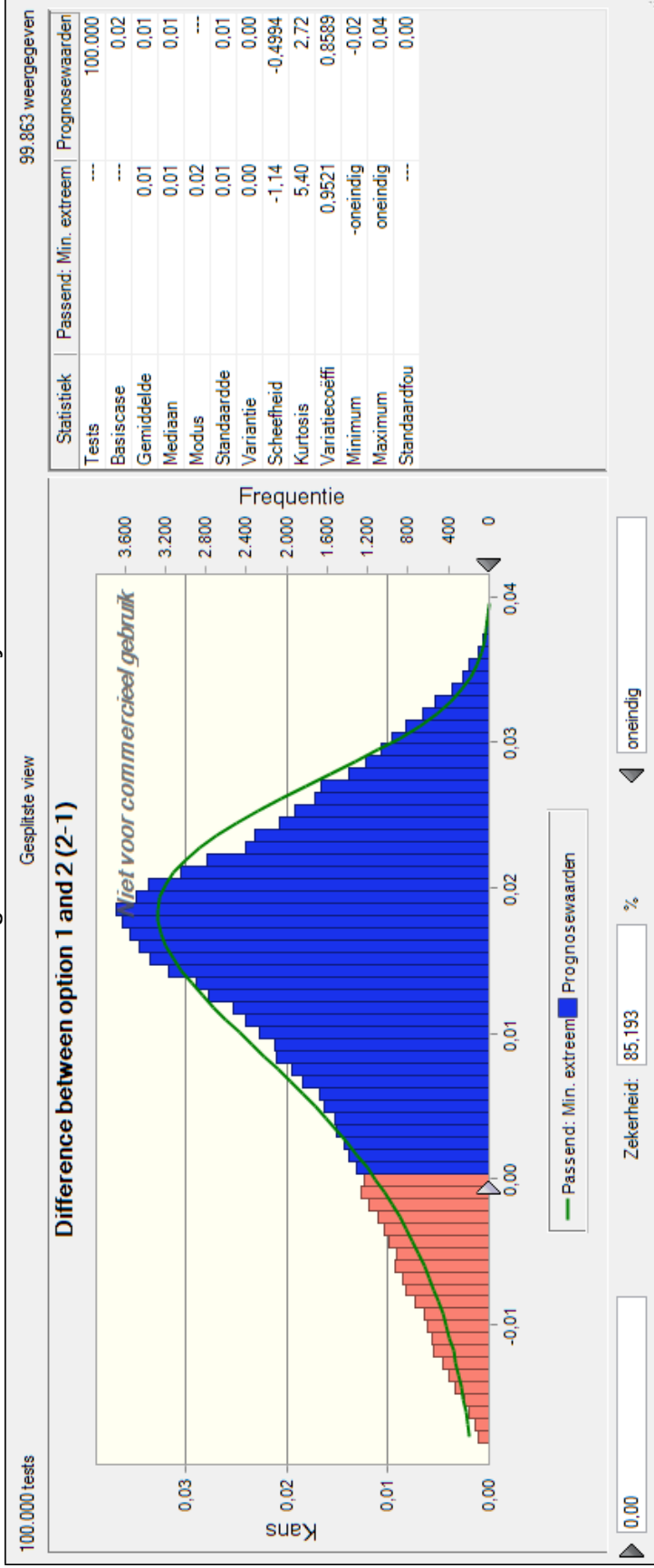


Figure 2: Sensitivity chart

