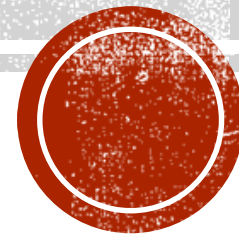


FACTORS INFLUENCING TIMBER SUPPLY

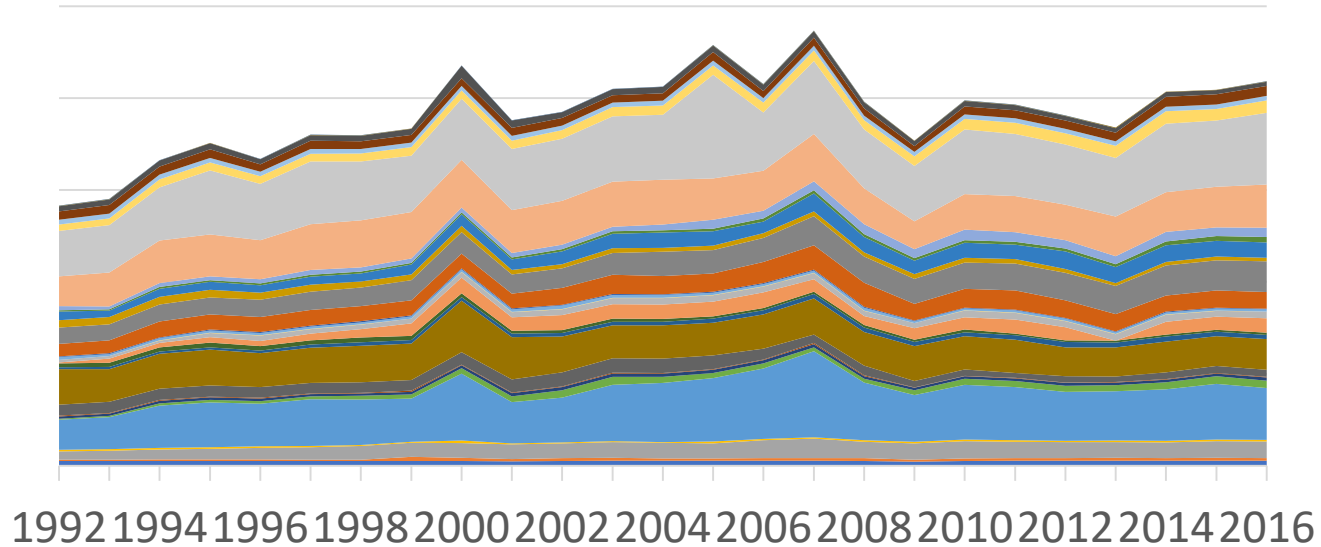
FOREST OWNERS' POINT OF VIEW

Arnis Muižnieks

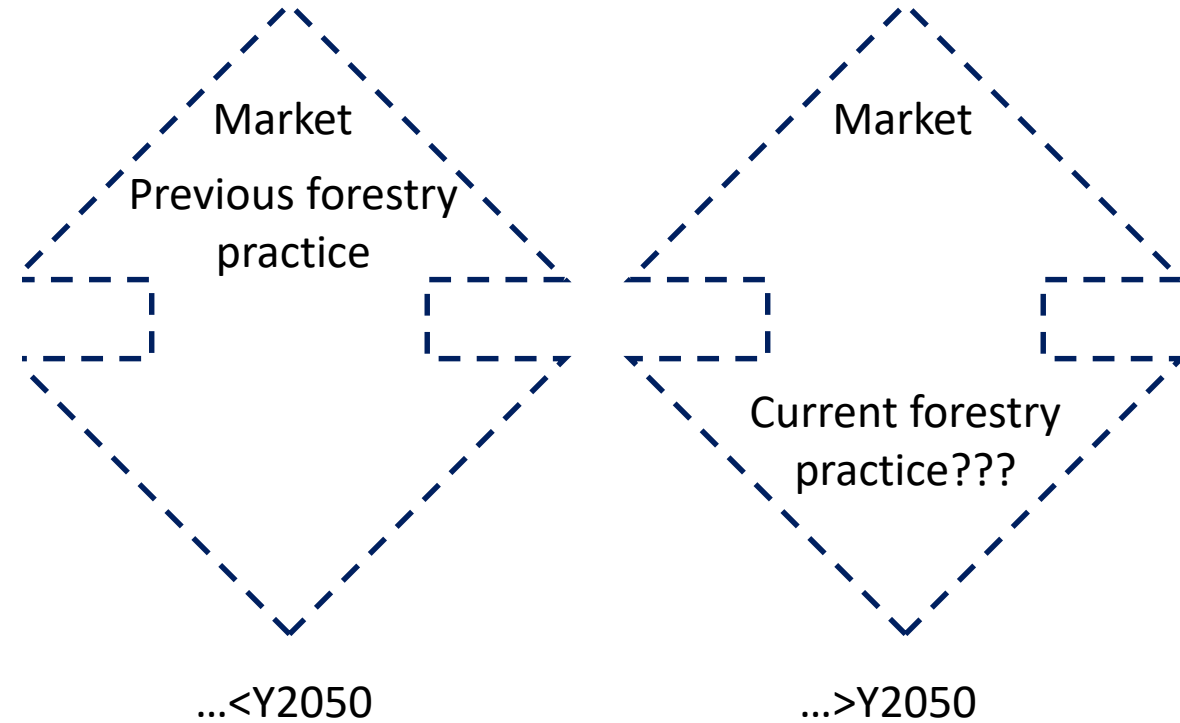


SOFTWOOD SAWNLOG TRENDS

SOFTWOOD SAWNLOG REMOVALS BY EUROPEAN COUNTRIES (TH. M³)



Source: EUROSTAT



BACKGROUND FOR FOREST PRACTICE

Environmental

Social

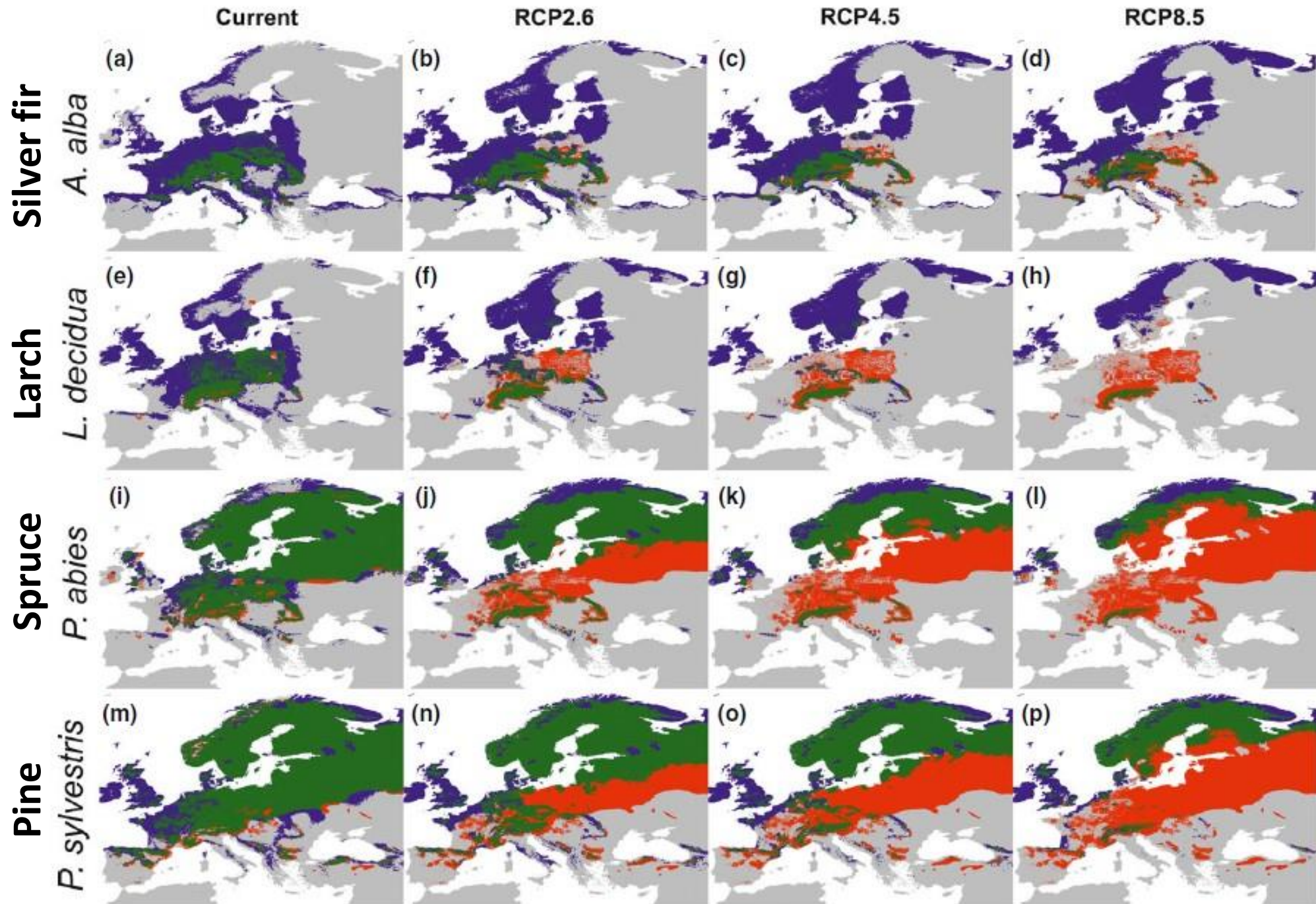
Economical

- Climate

WINNERS AND LOSERS

Species	Number of records ^a	Number of raster cells ^b	Number of points after resampling	AUC _{test} ^c	Probability threshold ^d	Group ^e
<i>Abies alba</i>	119,134	54,459	1,178	0.8535	.2396	Winner
<i>Betula pendula</i>	824,219	384,913	3,370	0.7258	.4250	Loser
<i>Fagus sylvatica</i>	419,502	134,611	1,764	0.8327	.4105	Winner
<i>Fraxinus excelsior</i>	763,612	408,052	3,483	0.6799	.3992	Winner
<i>Larix decidua</i>	99,315	56,299	1,121	0.8761	.3400	Loser
<i>Picea abies</i>	568,894	329,956	3,147	0.7679	.4289	Loser
<i>Pinus sylvestris</i>	769,575	380,998	3,748	0.6959	.4175	Loser
<i>Pseudotsuga menziesii</i>	129,051	19,073	788	0.8998	.3019	Alien
<i>Quercus petraea</i>	337,106	195,239	2,091	0.8037	.3076	Winner
<i>Quercus robur</i>	711,186	272,376	2,850	0.7280	.4238	Winner
<i>Quercus rubra</i>	51,089	26,710	813	0.9122	.3581	Alien
<i>Robinia pseudoacacia</i>	100,789	41,465	1,254	0.8524	.3886	Alien

Source: Dyderski, Marcin & Paż, Sonia & Frelich, Lee & Jagodziński, Andrzej. (2018). How much does climate change threaten European forest tree species distributions?. Global Change Biology. 24. 1150-1163. 10.1111/gcb.13925.



Blue – gain
 Green – current
 Red - losses

Source: Dyderski, Marcin & Paż, Sonia & Frelich, Lee & Jagodziński, Andrzej. (2018). How much does climate change threaten European forest tree species distributions?. *Global Change Biology*. 24. 1150-1163. 10.1111/gcb.13925.

FIELD OF PLAY FOR FOREST PRACTICE

Environmental

Social

Economical

- Climate 
- Wildlife

INCREASE OF WILD GAME DAMAGE



FIELD OF PLAY FOR FOREST PRACTICE

Environmental

- Climate 
- Wildlife 

Social

- Urbanization

Economical

Almost three quarters of the European population lived in urban areas in 2015

And it could rise to just over 80 % by 2050

SHARE OF URBAN AND RURAL POPULATION BY CONTINENT (1950-2050)
(% total population)

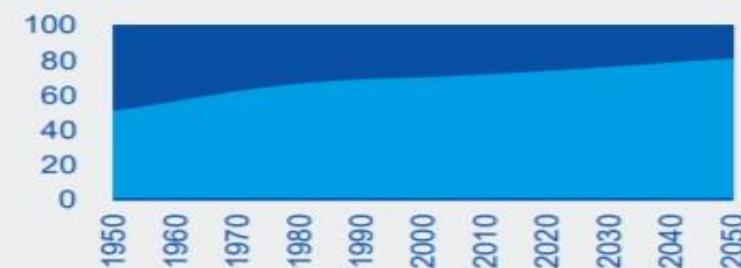
AFRICA



ASIA



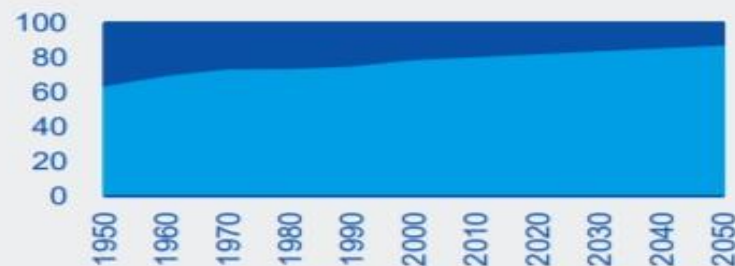
EUROPE



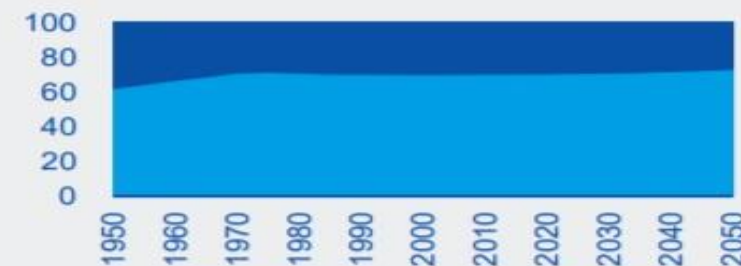
LATIN AMERICA AND THE CARIBBEAN



NORTHERN AMERICA

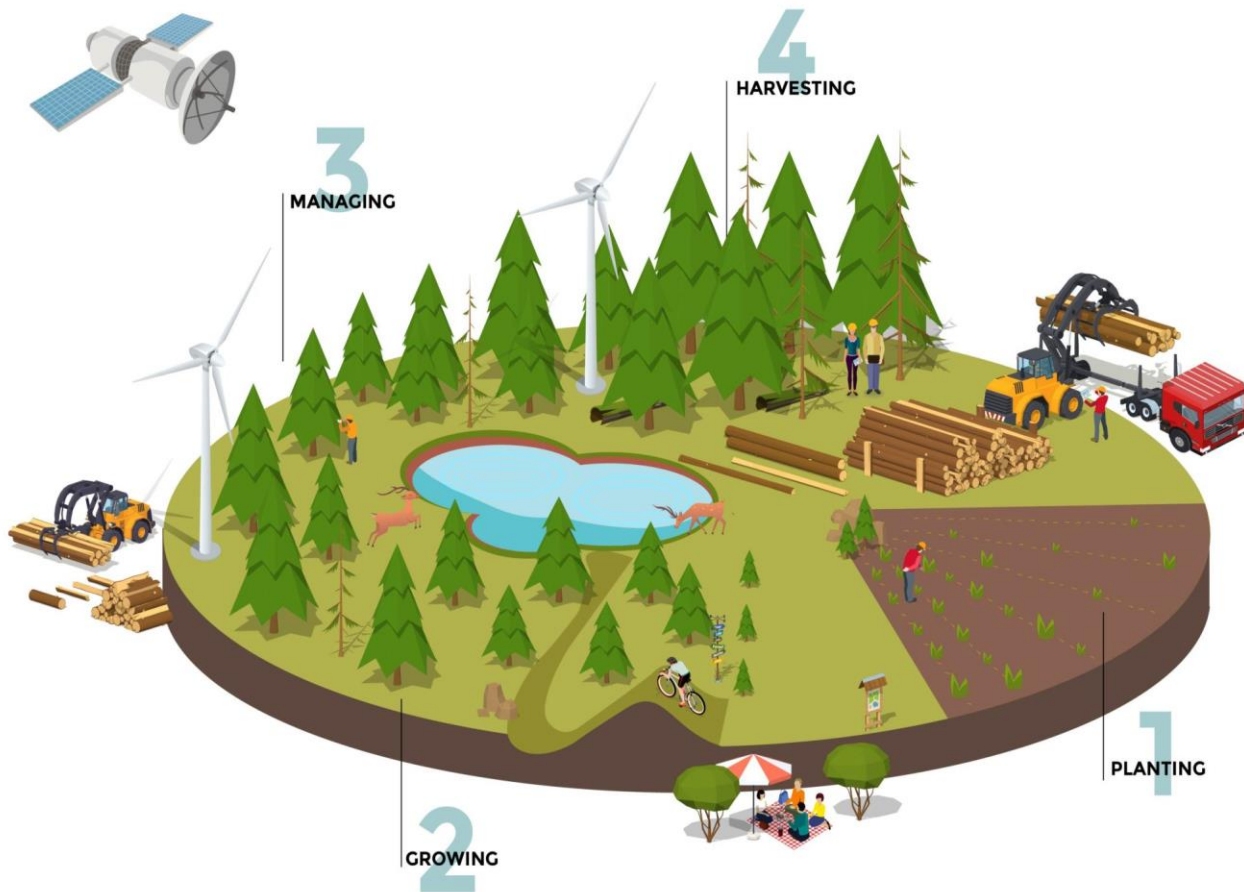


OCEANIA

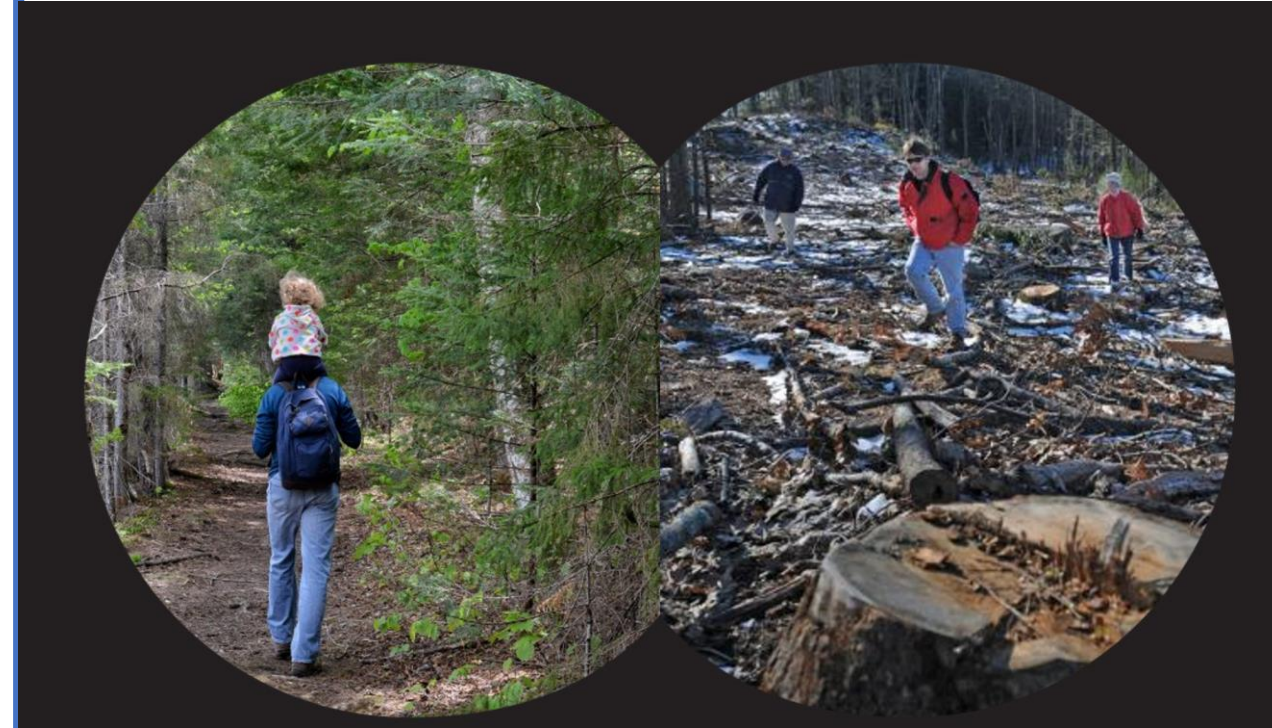


■ Urban area ■ Rural area

Our Perspective



Urban Population Perspective

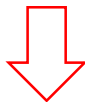


FIELD OF PLAY FOR FOREST PRACTICE

Environmental

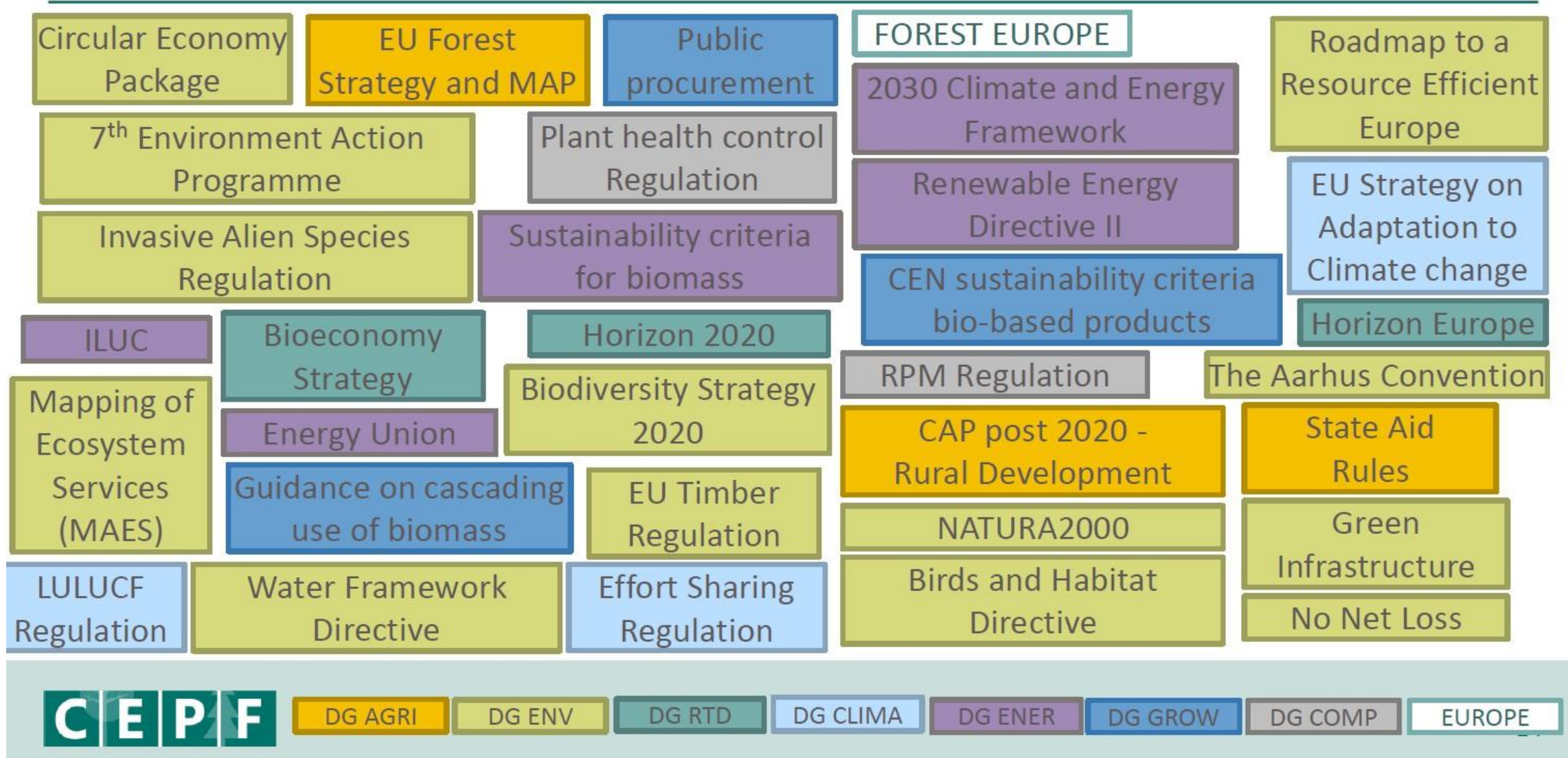
- Climate 
- Wildlife 

Social

- Urbanization 
- Legislation

Economical

EU Forest Policy: a complex scattered puzzle



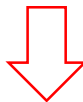
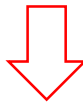


FIELD OF PLAY FOR FOREST PRACTICE

Environmental

- Climate 
- Wildlife 

Social

- Urbanization 
- Legislation 
- NGO initiatives

Economical



Latvia
Estonia
Lithuania
Finland
Luxemburg

...

USA
Canada

What is a forest? ...at best something nice to look at, somewhere to walk their dog, a refuge from the hurly-burly of daily life. 4

How sexy are forests? as a forest expert... you have to realize that most people take decisions not based on the head, but on the heart, guts and sex. 6

Perspective: ...kill the extinction message. The 'Love' message trumps the 'Loss' message for grabbing the public's attention. 10



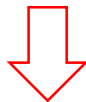


Communicating forest values

FIELD OF PLAY FOR FOREST PRACTICE

Environmental

- Climate 
- Wildlife 

Social

- Urbanization 
- Legislation 
- NGO initiatives 

Economical

- R&D



today

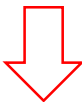
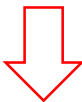



FIELD OF PLAY FOR FOREST PRACTICE

Environmental

- Climate 
- Wildlife 

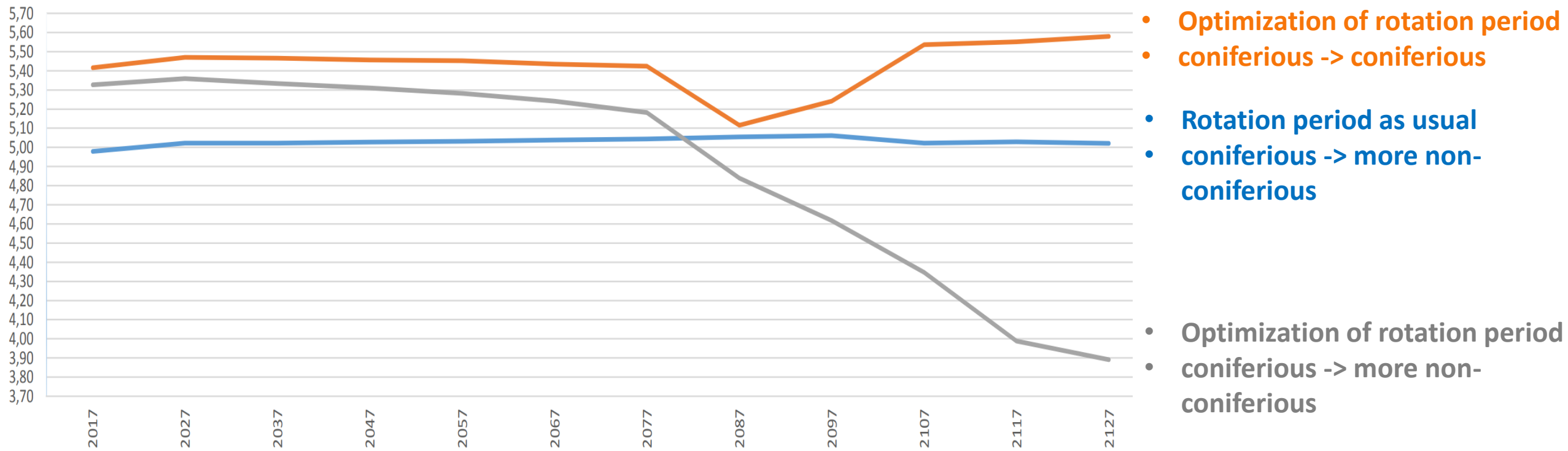
Social

- Urbanization 
- Legislation 
- NGO initiatives 

Economical

- R&D 
- Market

ESTIMATED CAPITAL VALUE OF FOREST (LV)

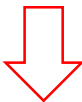
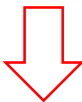



FIELD OF PLAY FOR FOREST PRACTICE

Environmental

- Climate 
- Wildlife 

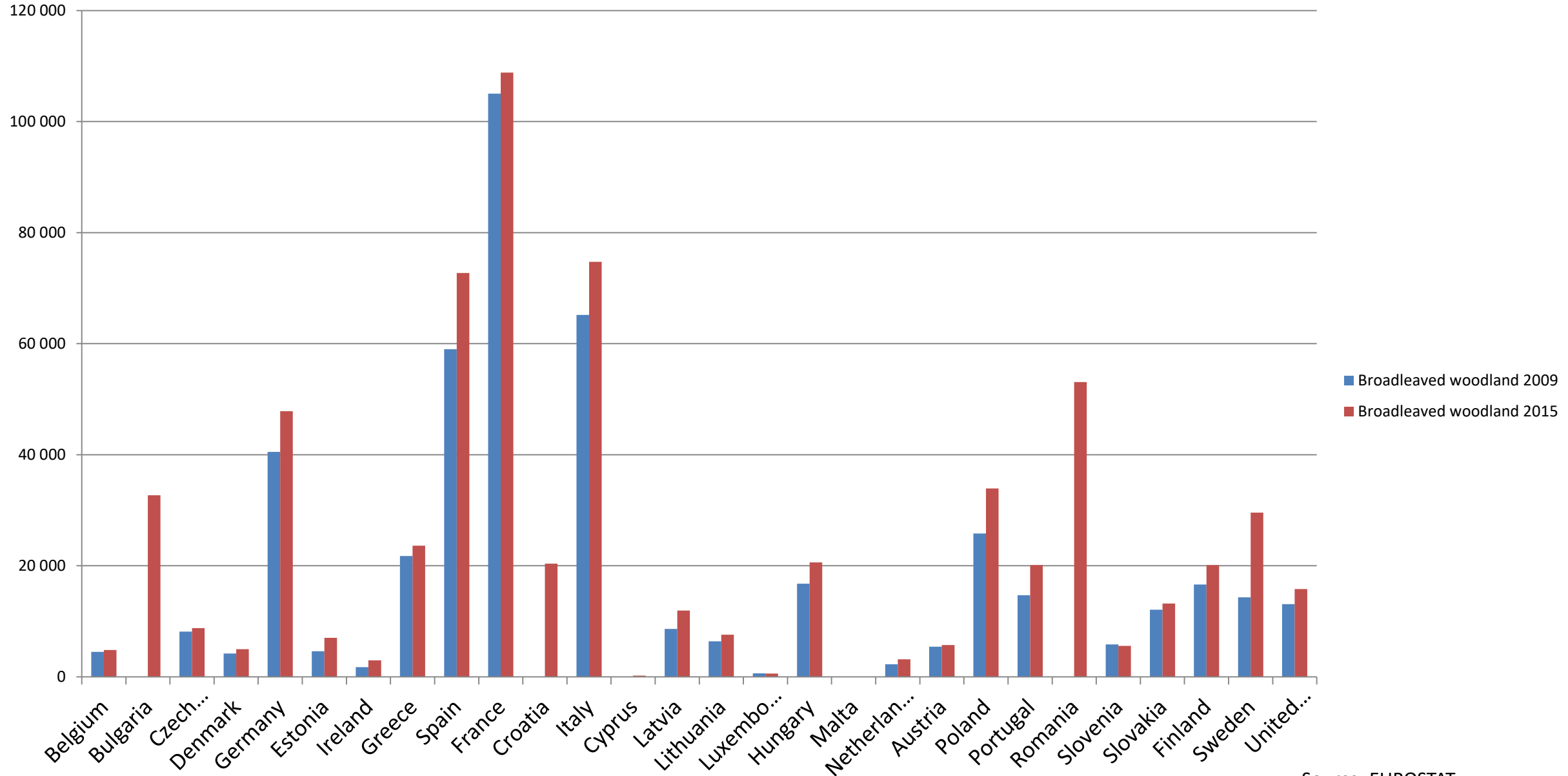
Social

- Urbanization 
- Legislation 
- NGO initiatives 

Economical

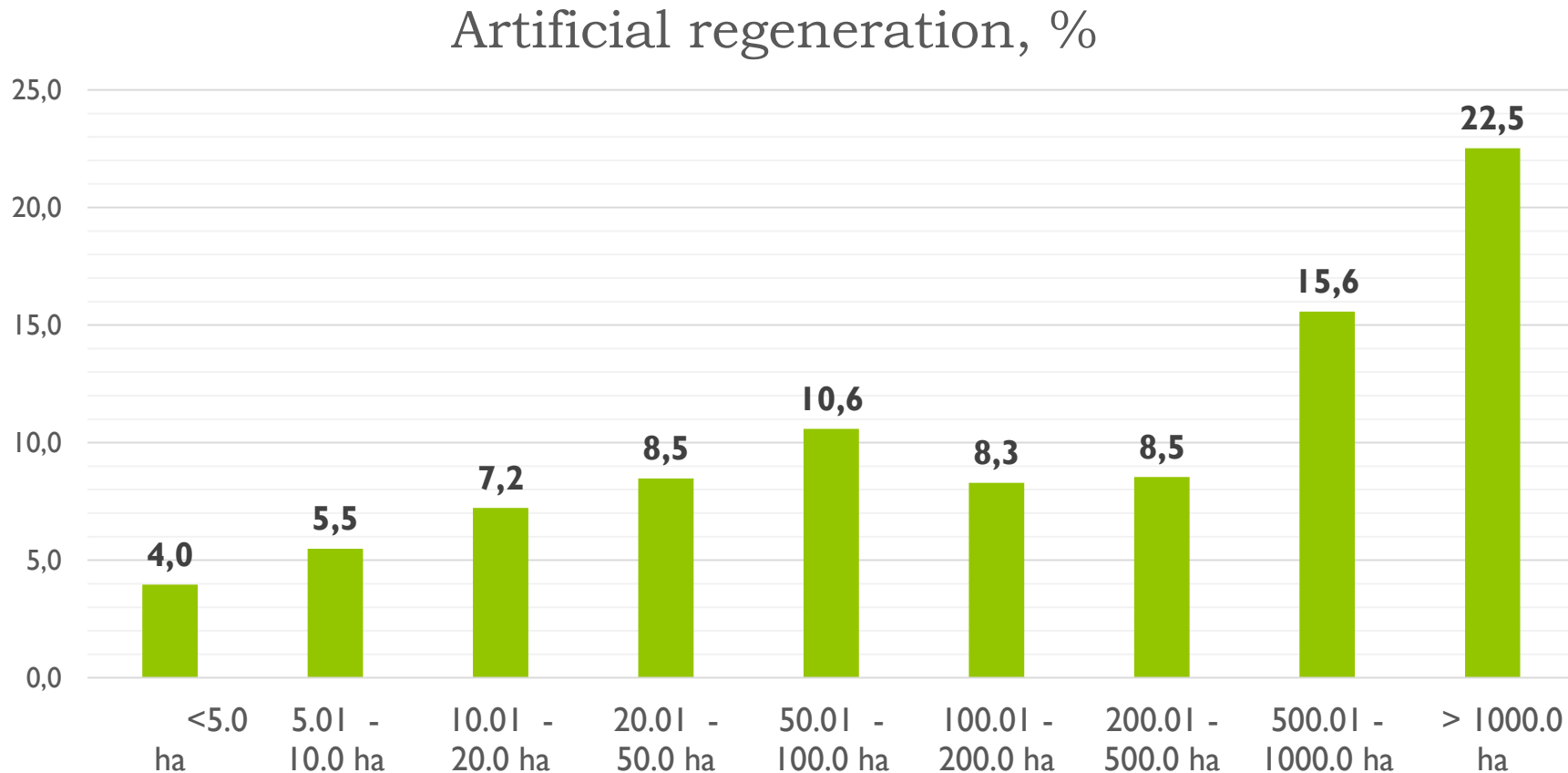
- R&D 
- Market 
- Costs

BROADLEAVES ARE COMING!



FOREST REGENERATION IN PRIVATE FORESTS IN LATVIA(2011-2015)

- From 2011 to 2015 artificially regenerated 12,6 % from total 92 400 ha

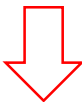
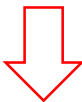



FIELD OF PLAY FOR FOREST PRACTICE



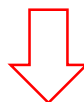
Environmental

- Climate 
- Wildlife 

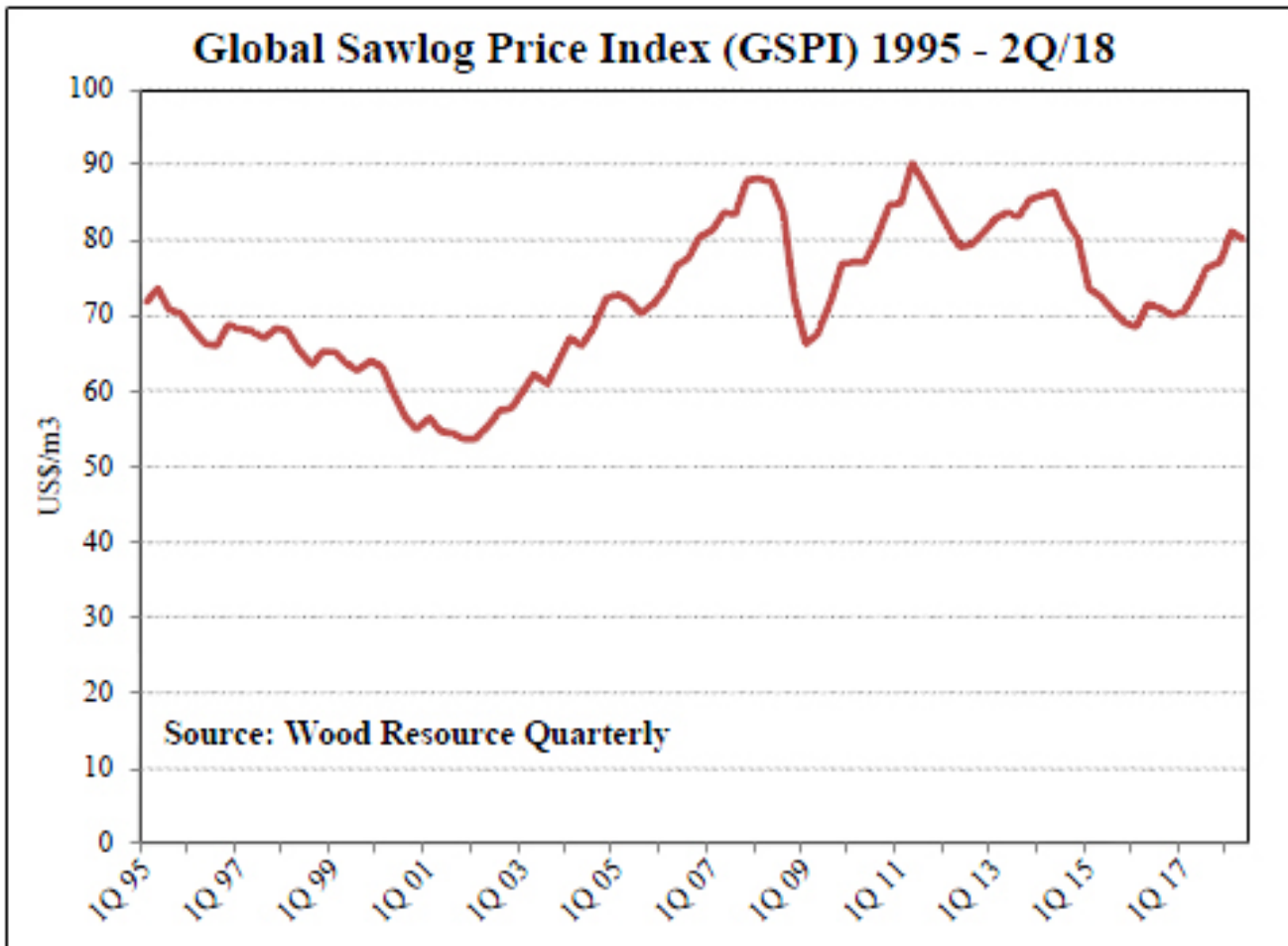
Social

- Urbanization 
- Legislation 
- NGO initiatives 

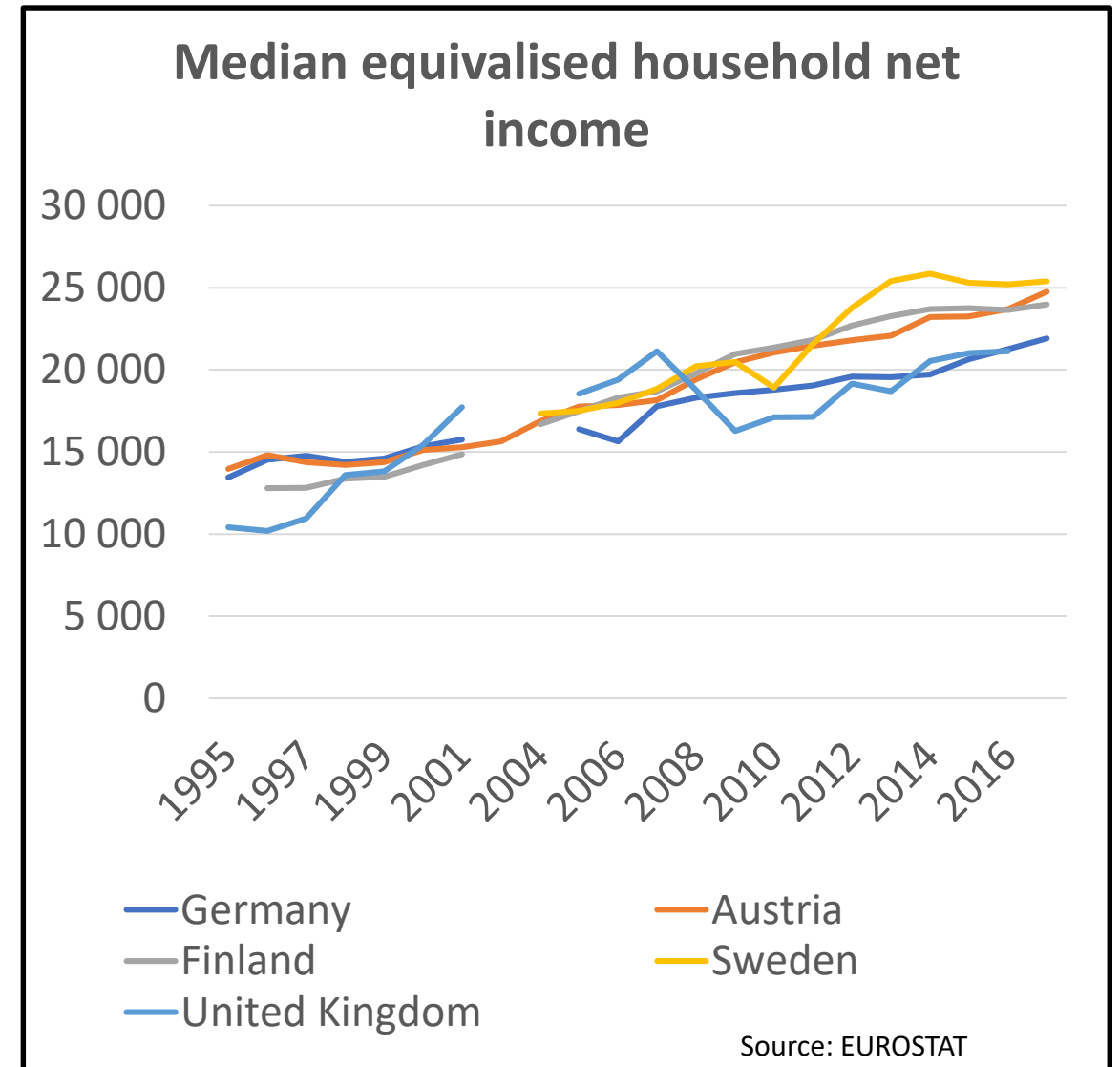
Economical

- R&D 
- Market 
- Costs 
- Relative importance of income from forestry

TRENDS OF INCREASE OF SAWLOG PRICE AND HOUSEHOLD INCOME



<https://www.paperadvance.com/blogs/hakan-ekstrom/10349-the-global-forest-industry-in-the-2q2018.html>

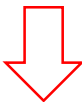
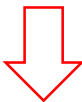



FIELD OF PLAY FOR FOREST PRACTICE




Environmental

- Climate 
- Wildlife 

Social

- Urbanization 
- Legislation 
- NGO initiatives 

Economical

- R&D 
- Market 
- Costs 
- Relative importance of income from forestry 
- Incentive goals

INCOME SOURCE FOR FOREST OWNER IS «HA» NOT «M³»

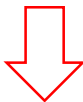
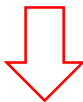



FIELD OF PLAY FOR FOREST PRACTICE






Environmental

- Climate 
- Wildlife 

Social

- Urbanization 
- Legislation 
- NGO initiatives 

Economical

- R&D 
- Market 
- Costs 
- Relative importance of income from forestry 
- Support targets 

Certification

1993

Legally protected forest areas:

- Specially protected nature areas
- Protected forest sites
- Protection belts near waterbodies, cities
- Culture monuments

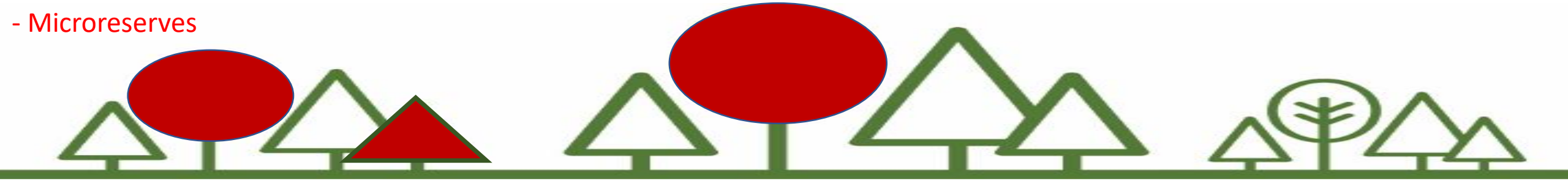


Commercial forests:



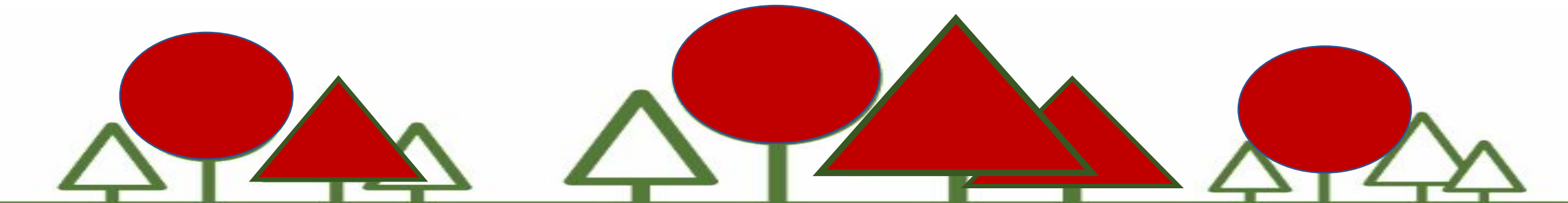
Legally protected forests:


- Specially protected nature areas (+ designation of NATURA 2000 sites)
- Protected forest sites
- Protection belts near waterbodies, cities
- Culture monuments
- Microreserves



Voluntary protection according to the certification requirements:

1. High Conservation Values, Forests, Areas/ Ecologically Important Forest Areas
2. Sites of special cultural, ecological, economic, religious or spiritual significance
3. Representative sample areas of native ecosystems
4. Landscape level conservation/landscape values
5. Habitat features / Environmental values
6. Habitats of EU importance + Woodland Key Habitats



A background image showing a close-up of a hand moving a dark chess piece on a light-colored chessboard. The chessboard has alternating light and dark squares. Other chess pieces are visible in the background, slightly out of focus. The overall tone is warm and strategic.

The majority of the private forest owners perceive forest certification as additional financial burden with no financial return. Forest sector is driven by strict national and international regulations.

Nevertheless, in the past years private forest owners face situations when certification is being enforced.

National FSC Forest Management Standard for the Republic of Latvia (Draft D1-0)	FSC Centralized National Risk Assessment for Latvia (applicable for FSC certified chain of custody companies that source FSC Controlled Wood)	Guidance on control measures for reducing risks identified in the Centralized National Risk Assessment for Latvia regarding the Category
<p>Definition of High Conservation Value (HCV) category 3:</p> <ul style="list-style-type: none"> - Natura 2000 sites or its parts designated to protect habitats of EU importance; - Microreserves established for protection of habitats; - Organizations designated for habitat concentration in the area; - Areas managed outside the areas where the manager received a certificate in accordance with the FSC National Forest Management Standard for Latvia) that are eligible as of 20.06.2017. Cabinet of Ministers Regulation No.350 "Regulations on the List of Species of Specially Protected Habitats". 		<p>...holders, who in the scope of ... in the procurement / ... (eg on web sites, ... legally binding ...ood supplier shall ...er is not acquired ...e and protected ...U importance, ...ected forest biotopes in accordance with the law of the Republic of Latvia. If the harvest is carried out at these sites, an expert opinion of the species or habitats concerned is required. "</p>

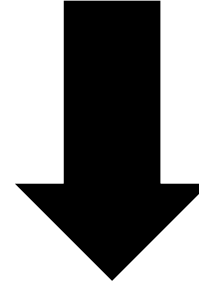
All these documents state that forest owners who are not certified against the FSC forest management standard are not allowed to sell their timber to the FSC certified companies if habitats of EU importance on their land are found.



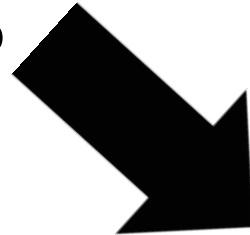
What is guilt?

"The fact or state of having committed an offense, crime, violation, or wrong, especially against moral or penal law; culpability." (Dictionary.com)

Who will compensate financial losses
to forest managers?

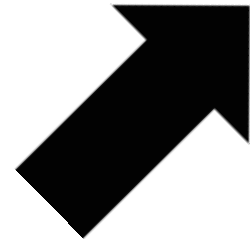


How to fight bureaucracy?



Do we want to make wood more expensive?

Can we afford to loose
commercial forest areas?



Do we want to reduce the share of
conifers?

The time of single heroes is gone!

