



European Union Network for the Implementation  
and Enforcement of Environmental Law



## OECD – EU4Environment - EaP

Lessons learnt from 15 years studying and implementing risk-based environmental compliance assurance systems

Simon Bingham

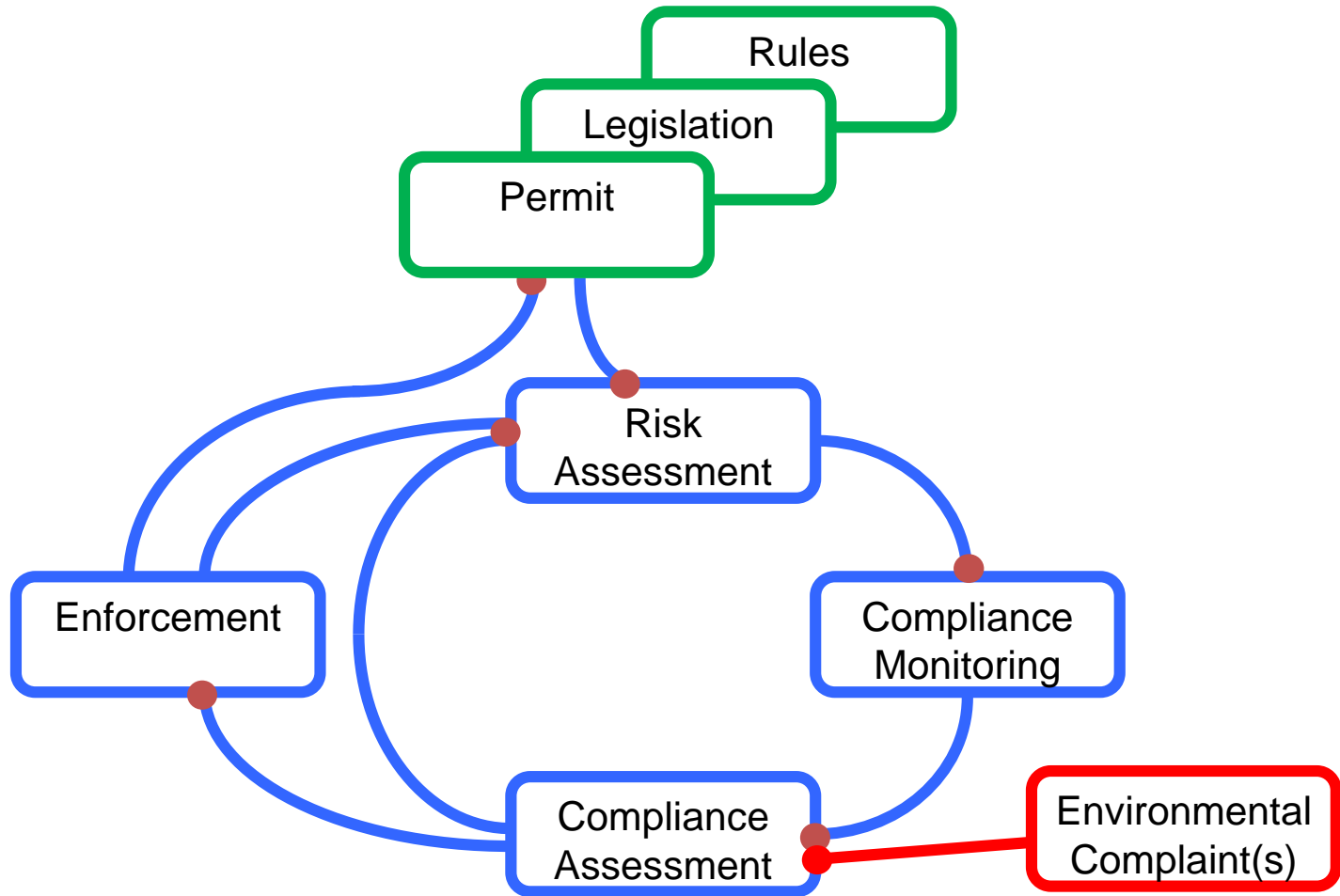
International Development Manager, SEPA

Cross-Cutting Expert Team Leader, IMPEL

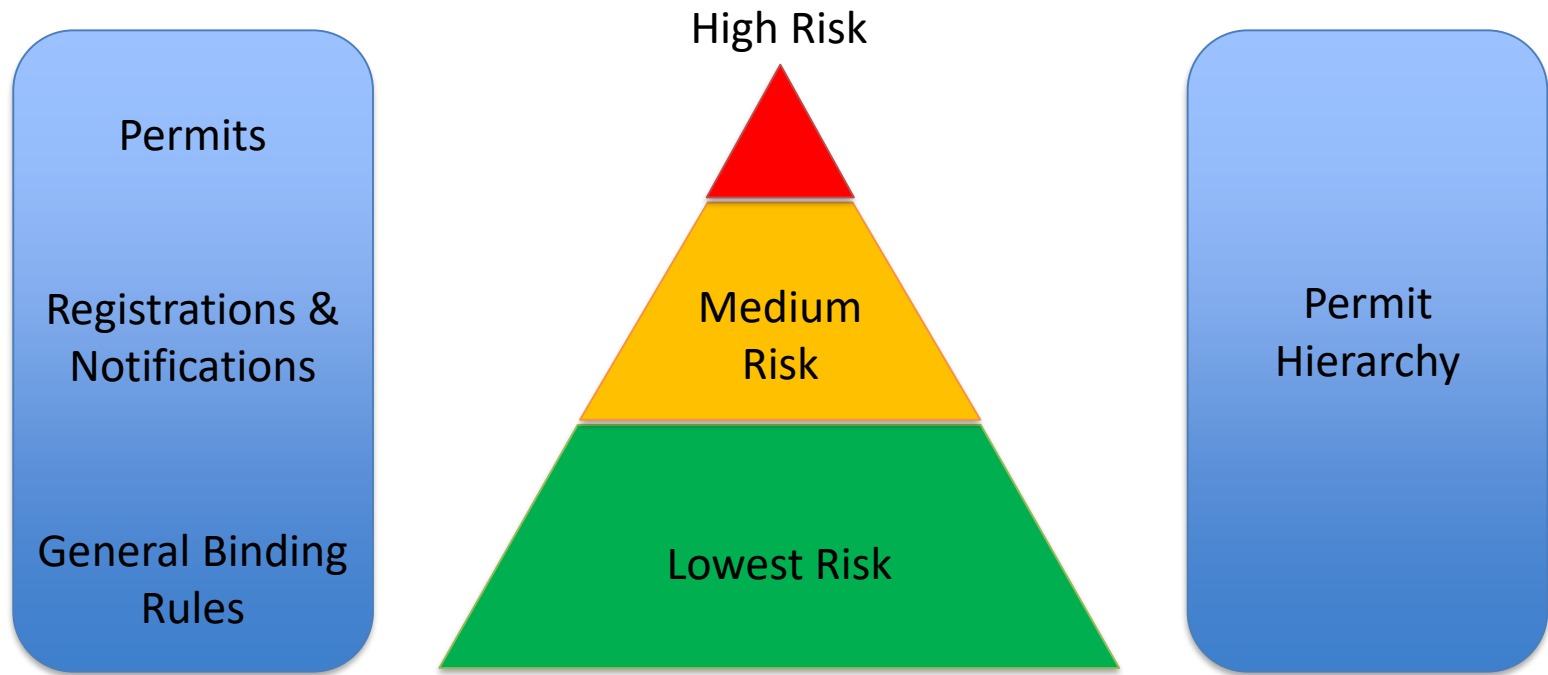
25<sup>th</sup> November 2020, Virtual



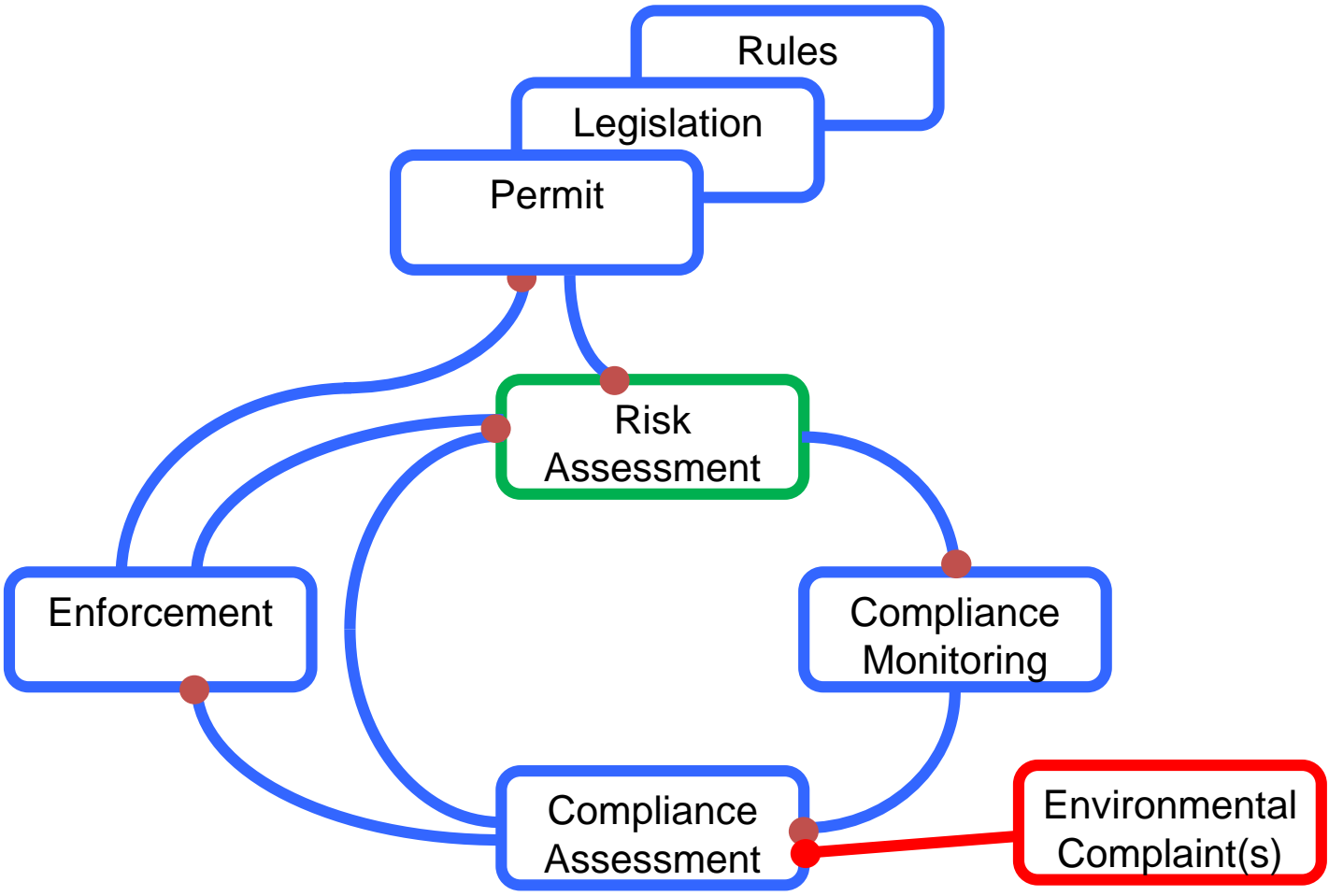
# Simplified Operational Aspects of the Regulatory Cycle



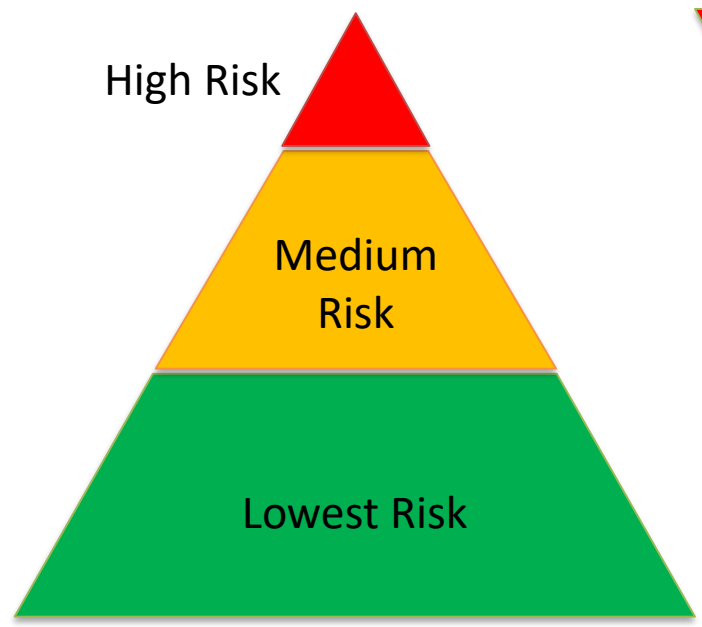
# Compliance assurance starts with good rules: Risk based permission hierarchy:



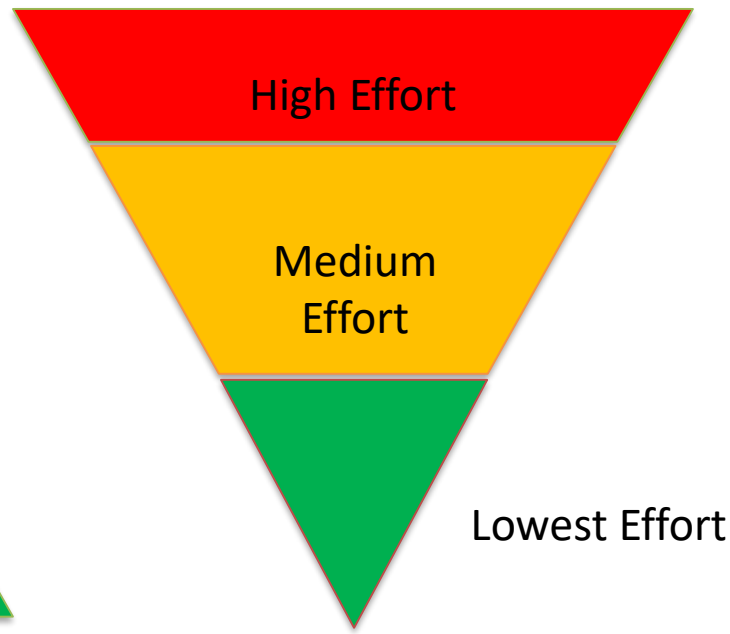
# Site/activity based risk assessment



# Expectation: Standard risk vs regulatory effort pyramids



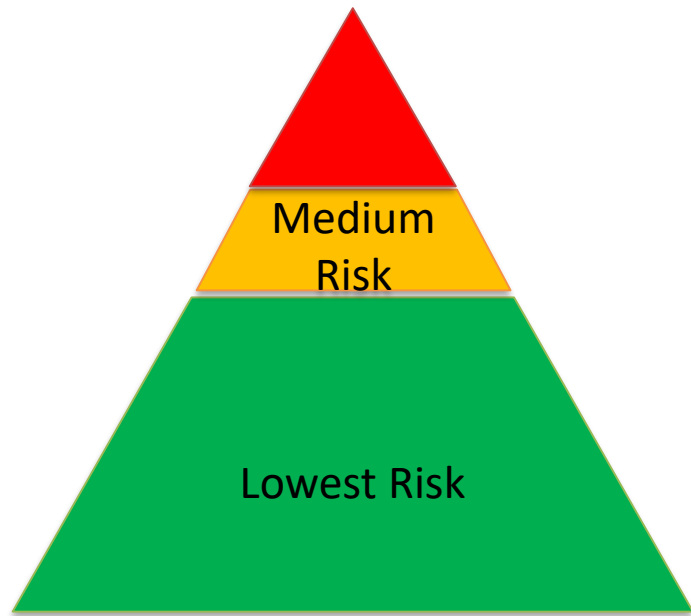
'Permit' Hierarchy



Permitting & Inspection Effort

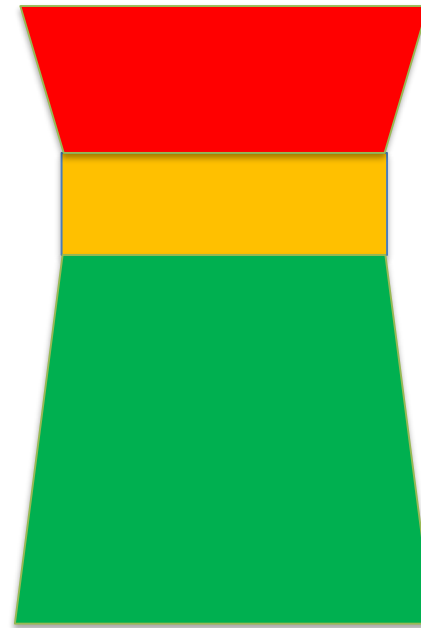


# Observed reality: risk vs regulatory effort pyramids (salt shaker)



Permit Hierarchy

High risk permits take too long to process



Spend too much time on low risk activities (permitting & inspection)



# Assigning regulatory effort - Inspection frequency

## Regulatory regime based risk-assessment:

	Waste	Water	Nature	Industry
High Risk	Annual	1-2 Years	1-5 Years	2 p.a.
Medium Risk	1-2 Years	1-5 Years	1-10 Years	Annual
Low Risk	1-3 Years	1-10 Years	-	1-2 Years

*A good first step, however...*



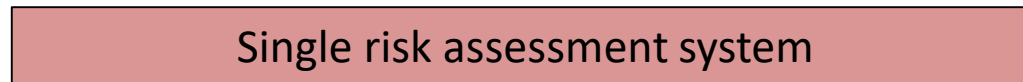
# Comparison of all regulatory activities in one system yields benefits





# Holistic risk assessment

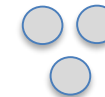
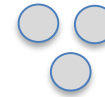
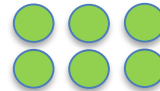
## Risk to the environment based risk-assessment:



High Risk

Medium Risk

Low Risk



2 p.a.  
Annual

1-2 Years  
1-3 Years

1-10 Years  
-

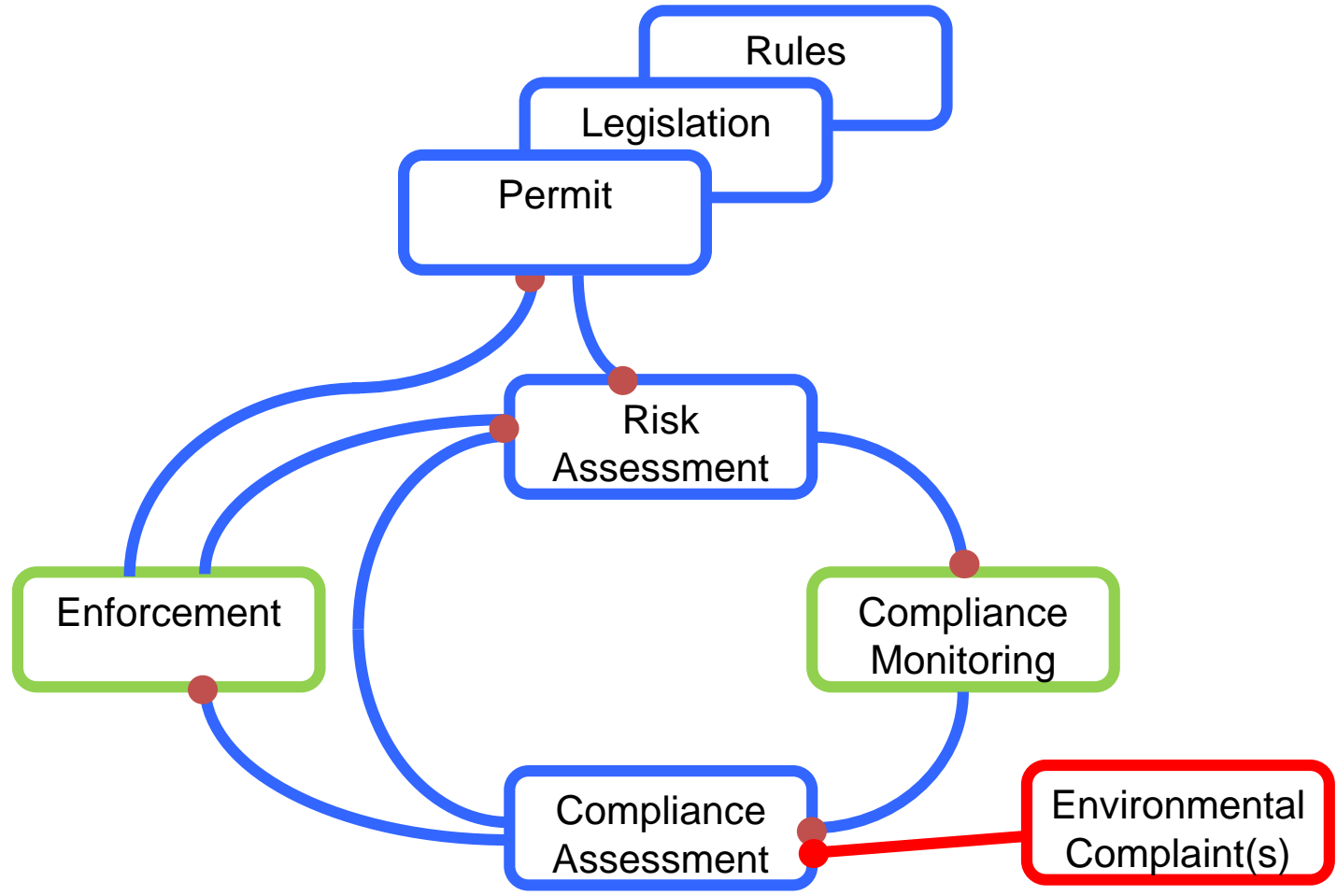


# SEPA's DREAM: Dynamic Regulatory Effort Assessment Model

<i>Chemical Manufacture</i>	<b>4 inspections per year</b>	<i>Refineries</i>
<i>Waste Incinerators</i>	<b>3 inspections per year</b>	<i>Landfills</i>
<i>Large WWTW</i>	<b>2 inspections per year</b>	<i>Large Fish Farm</i>
	<b>1 inspection per year</b>	<i>Large ELV</i>
<i>Small Waste Site</i>	<b>1 inspection every 2<sup>nd</sup> year</b>	
	<b>1 inspection every 3<sup>rd</sup> year</b>	<i>Small WWTW</i>
<i>Dry Cleaners</i>	<b>1 inspection every 5<sup>th</sup> year</b>	<i>Petrol Stations</i>



# Inspection & Enforcement



**Regulatory toolkit:  
Fundamentally hasn't changed much in 150 years**



*Inspection, sampling & enforcement*



# Compliance assurance & the challenges ahead



1873

2020



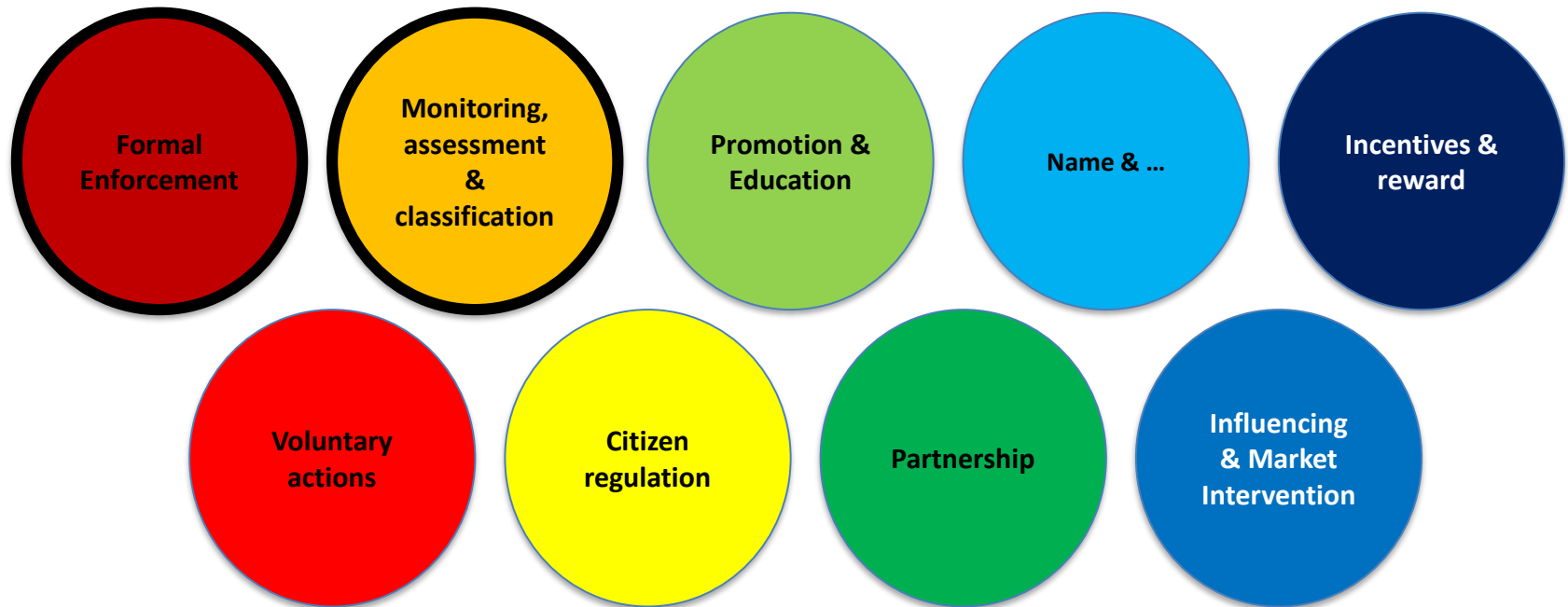
# Regulatory toolkit: Needs to expand to meet new challenges



*N+1*



# Regulatory toolkit: Expansion to meet new challenges



End

[Simon.Bingham@sepa.org.uk](mailto:Simon.Bingham@sepa.org.uk)

+44 7887 658930

