



# GWFF

GEOSPATIAL WORLD FORUM

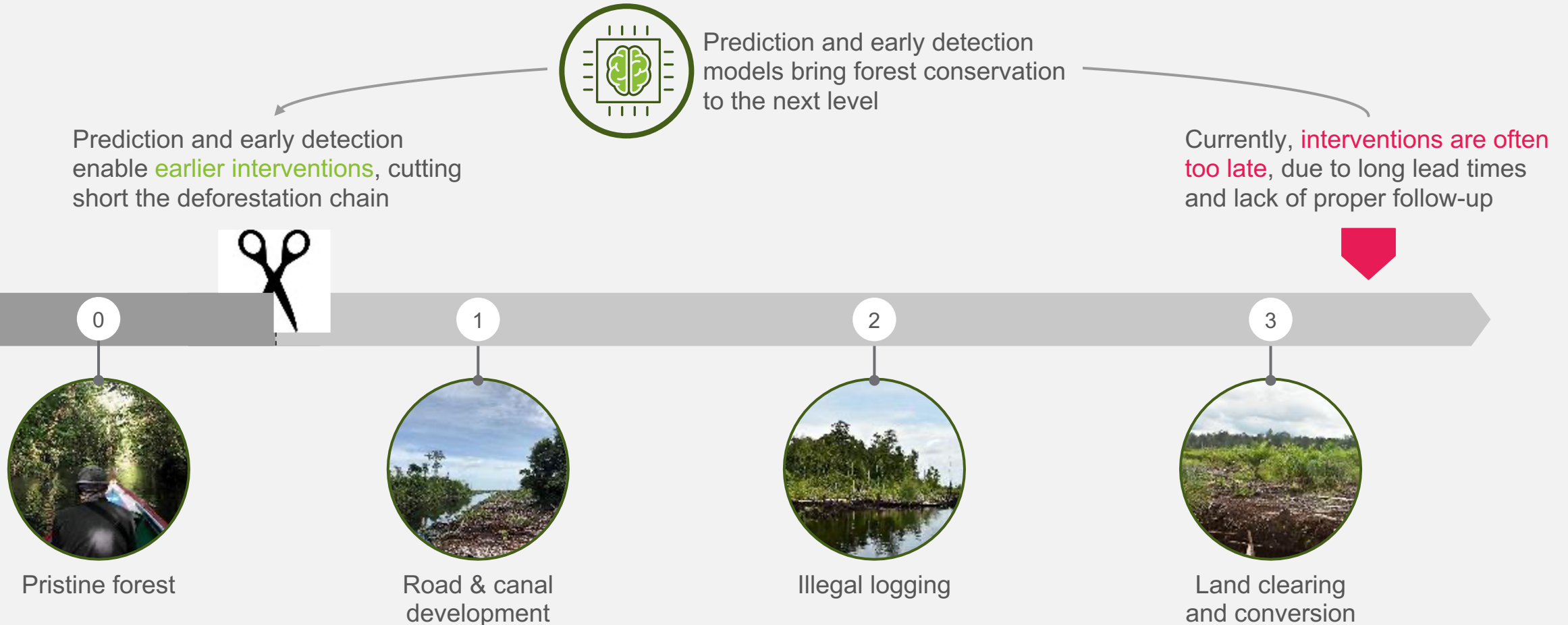
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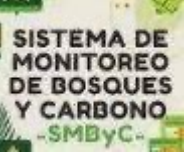








# Forest Foresight

A predictive warning system to  
predict and prevent deforestation



# Case for change: enabling earlier interventions to bring the forest conservation practice to the next level



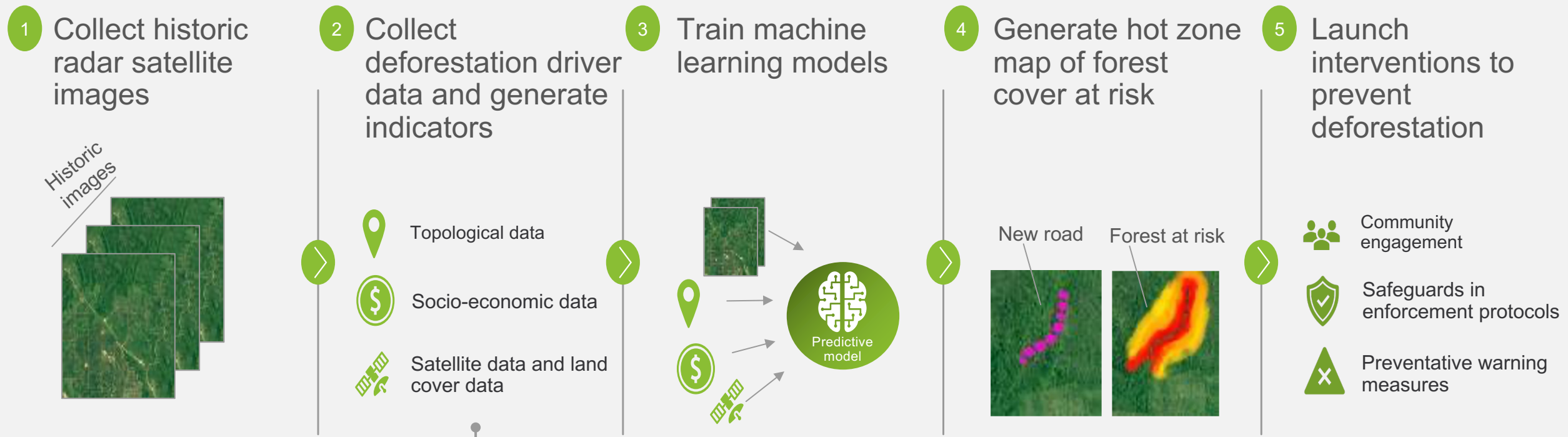
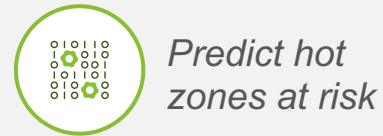
# Existing forest monitoring systems



Scope deforestation	Global			   	  
	Local			     	
Time horizon	 <b>Forecasting model</b> >1 year before start of deforestation	 <b>Medium term forecasting EWS</b> 6-12 months before start of deforestation	 <b>Short-term preventive EWS</b> 1-4 weeks before start of deforestation	 <b>Reactive EWS</b> 1-4 weeks after start of deforestation	 <b>Event warning model</b> > 1 month after start of deforestation

# Existing forest monitoring systems

Scope deforestation	Global			   	  
	Local		 <small>A WWF initiative</small>	  	  
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# Strong technical foundation underlying FF



Dynamic indicators	Static indicators
 <ul style="list-style-type: none"><li>• Distance to degradation</li><li>• Distance to deforestation</li><li>• Landscape heterogeneity metrics</li><li>• ...</li></ul>	 <ul style="list-style-type: none"><li>• Population density</li><li>• Distance to population center</li><li>• Distance to roads</li><li>• ...</li></ul>



**Before** - June 2021 Central Kalimantan (Indonesia)

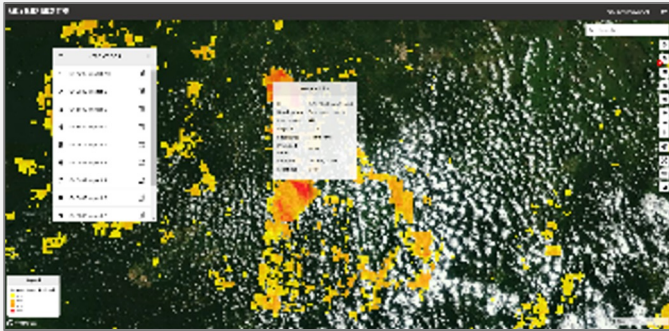


**After** - February 2022 Central Kalimantan (Indonesia)

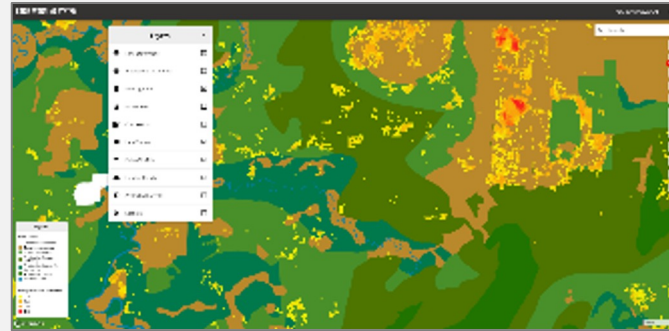
\* for illustrative purposes this is a simplification of predicted hotzone representation

# What a typical end-to-end FF process looks like...

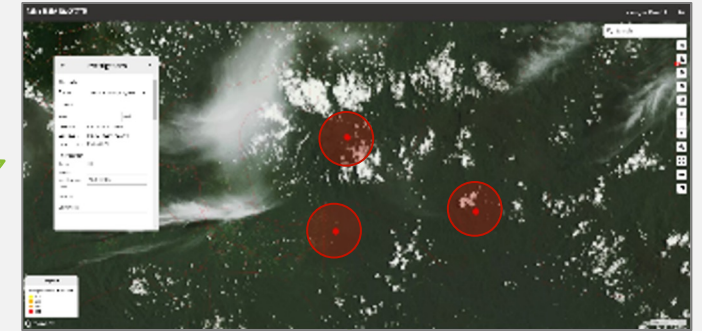
1 **FF team** opens dashboard to review monthly predictions using filters and contextual data



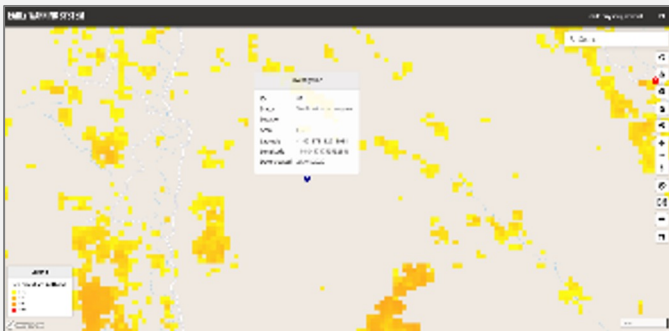
2 **Area Manager** is informed of predictions and logs in to dashboard to prioritize predictions and check permits



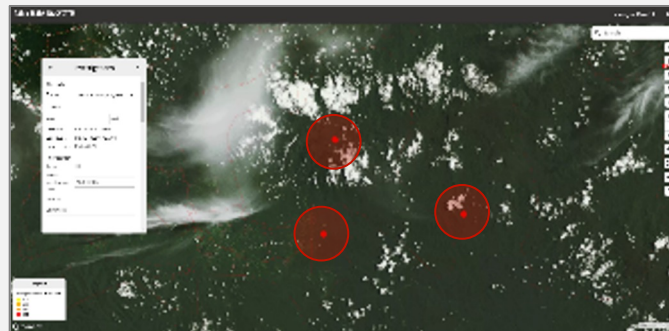
3 **Area Manager** plans field investigations that are uploaded in the intervention tracking app



6 **Area Manager** instructs to carry out intervention plan, monitors results and reports back to FF team



5 **Lead by the Area Manager**, **FF team** reviews the investigation report and agrees intervention plan if needed



4 **Patrol team** verifies deforestation by visiting predictions in the field, taking photos & completing survey / checklist





# FF is currently engaging 7 countries with potential impact of up to 30% reduction in illegal deforestation



Legend

Current focus      Future roll-out

The hectares indicate projected forest loss between 2010 and 2030



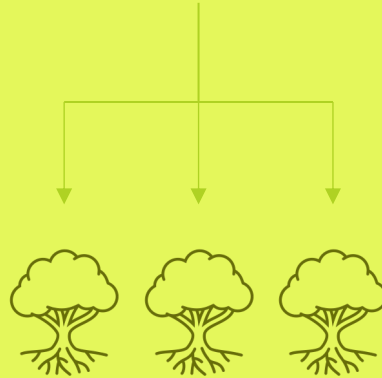
National government (Central agency)



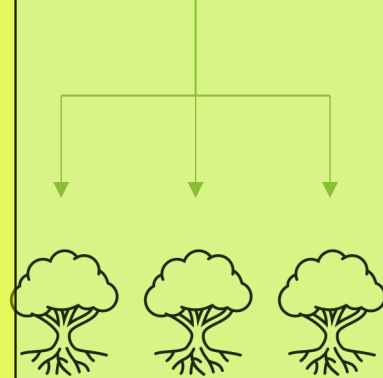
GLOBAL FOREST WATCH



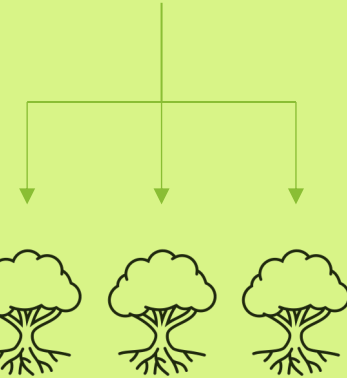
Ministry of environment



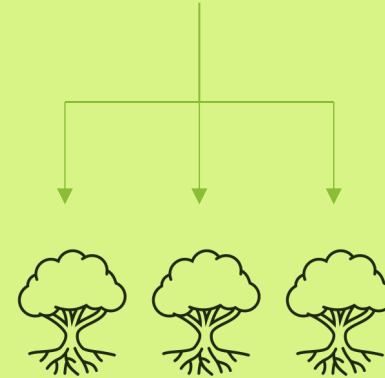
Ministry of Forestry



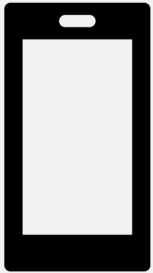
Ministry of mining



Ministry of Agriculture



# How can you help?



**Access to emerging data  
on human mobility  
patterns**



**Implement the solution in  
your programs!**



**Improve the tech solution  
by setting up e.g.  
dedicated hackathon**



**Funding to support project  
implementation!**



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