

# eTIR

## Computerization of TIR Procedure Cost Benefits Analysis

**Presentation prepared  
by SIVECO Romania**

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# Outlines

Main objectives

eTIR global view

Architectural alternatives

Costs to develop, setup and operate the system

Direct benefits

Cost Benefit Analysis

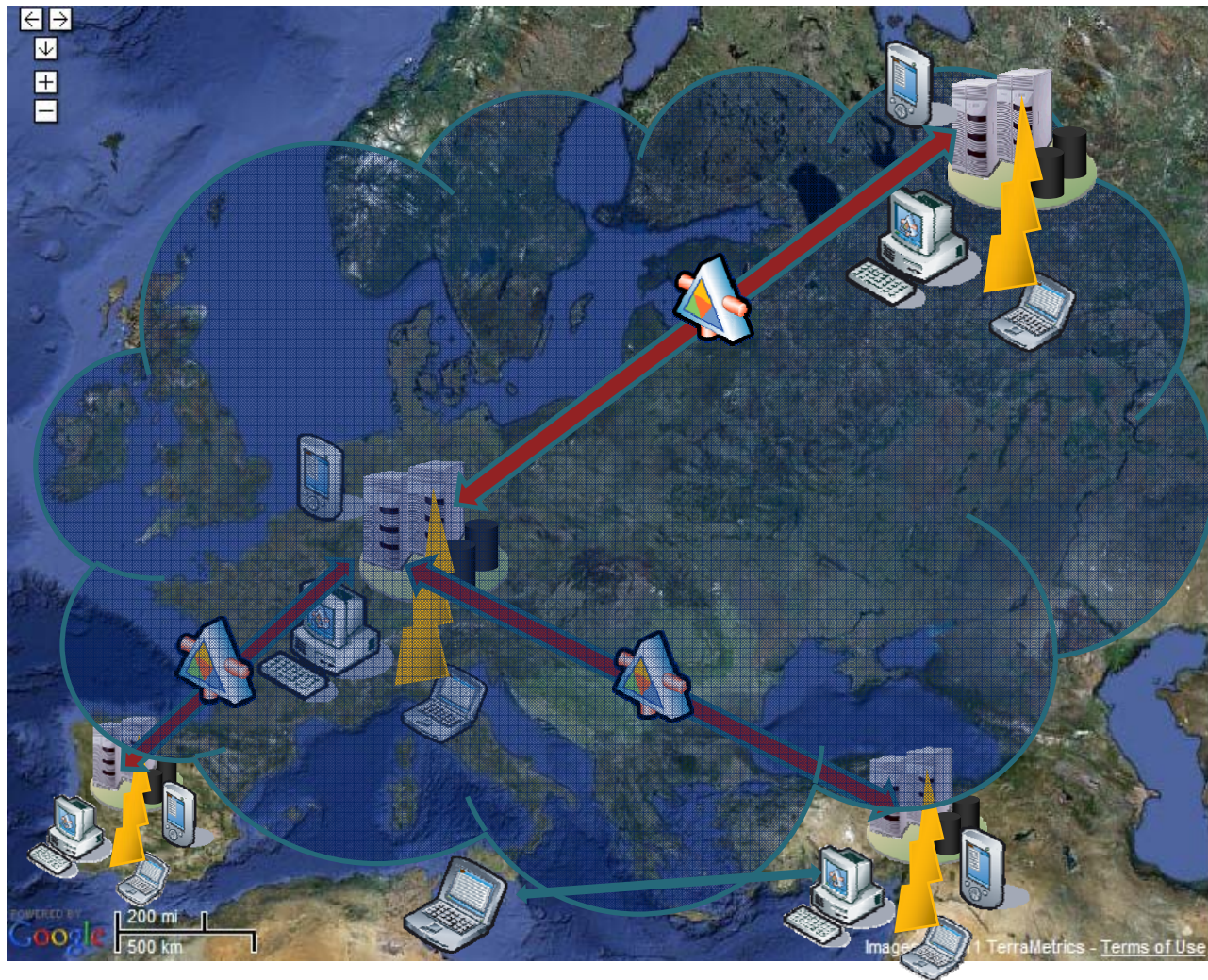
Recommendations



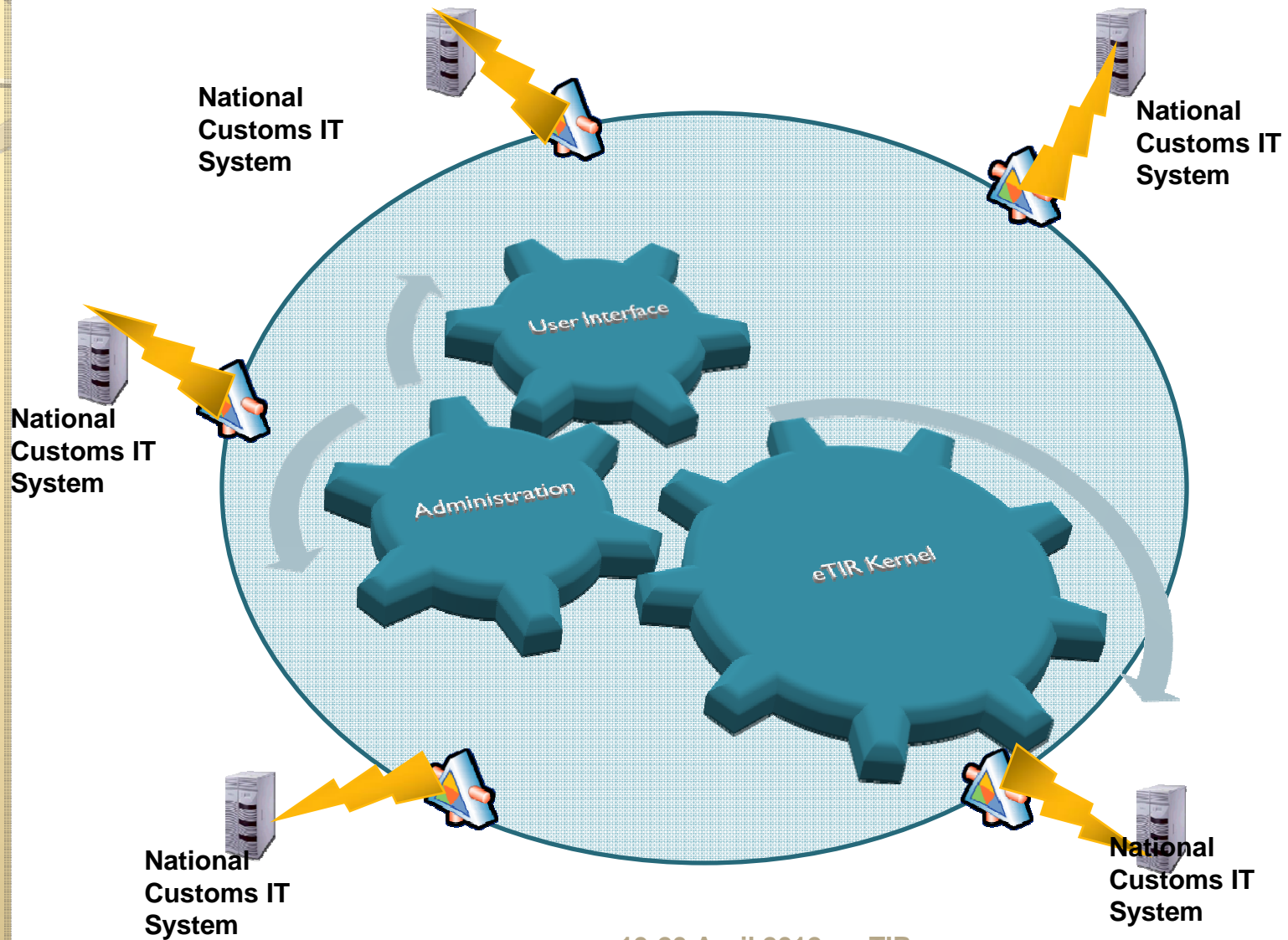
# Main objectives

- Improvement of efficiency and quality of TIR procedure
- Decrease the risk of fraud and improvement of security
- Facilitation of data exchange between TIR procedure actors

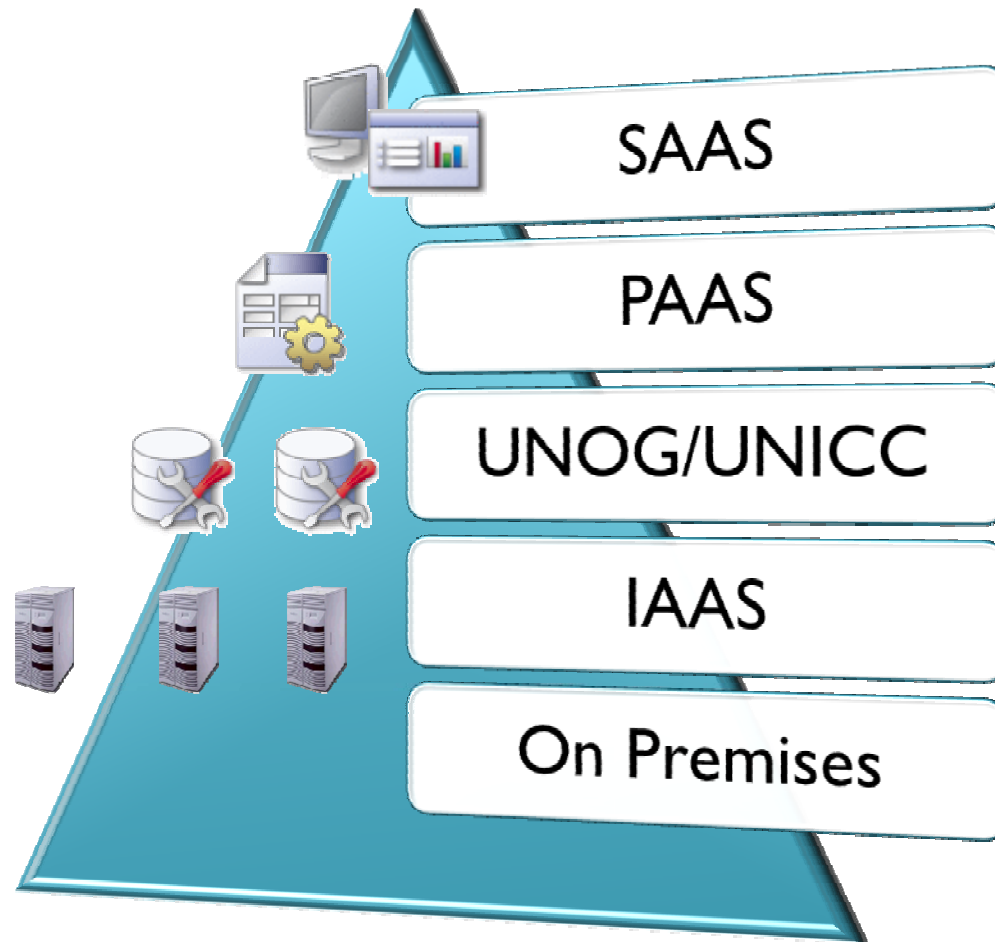
# eTIR global view



# eTIR Main Components



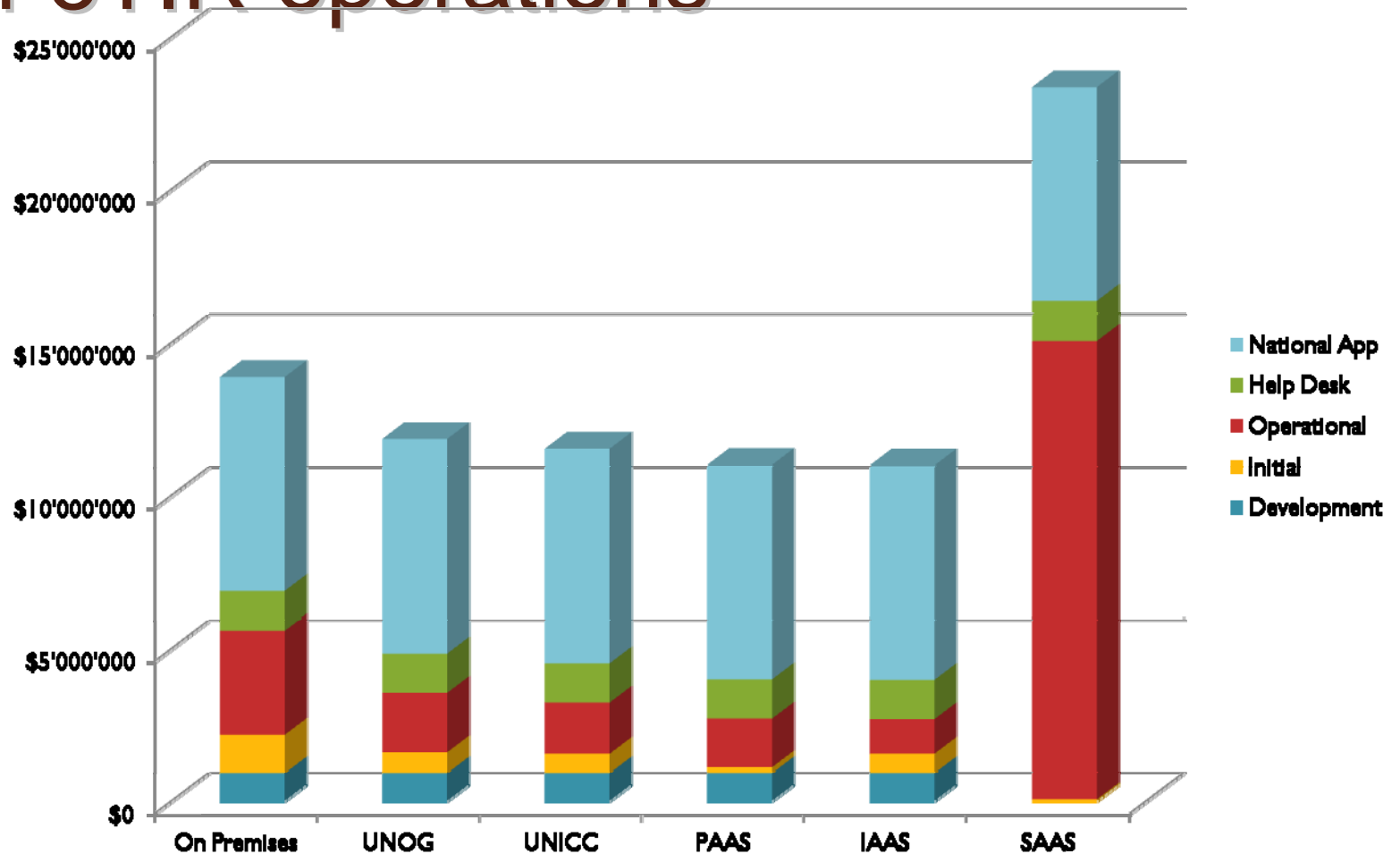
# eTIR Architectural alternatives



# eTIR costs

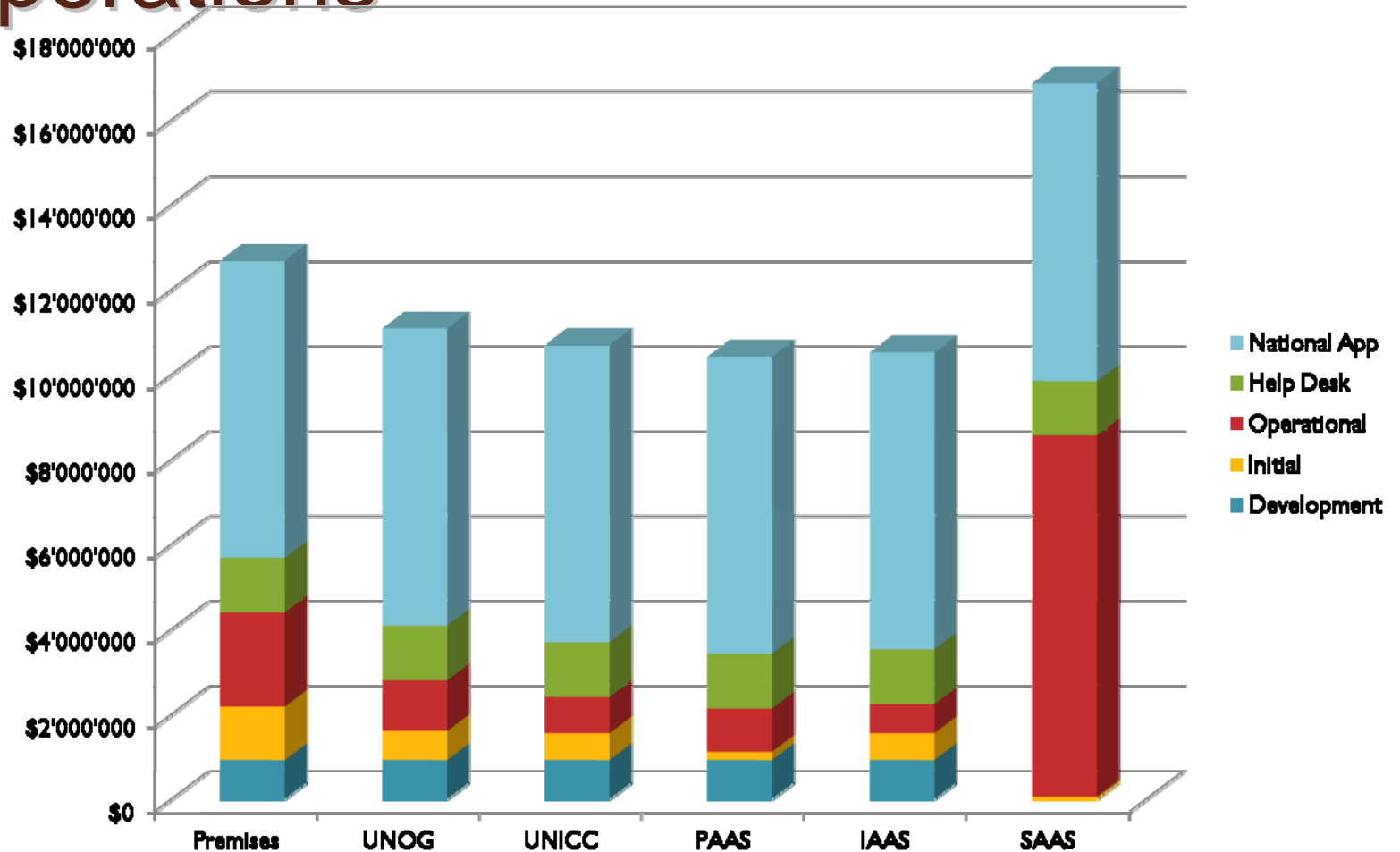


# Total Costs for eTIR simultaneously launched, 10 year of eTIR operations



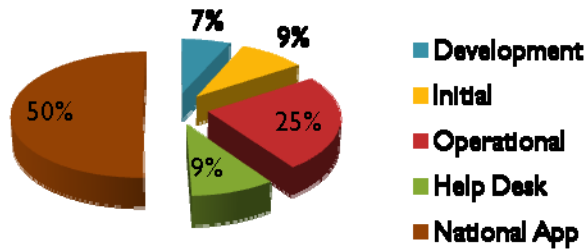


# Total Costs for eTIR gradually launched, 10 year of eTIR operations

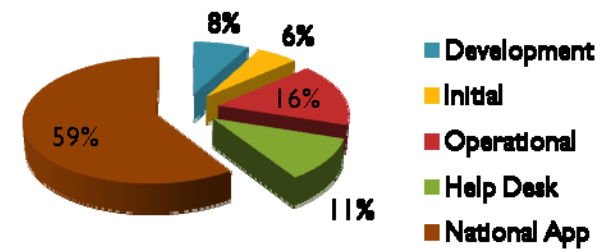


# Cost Distribution

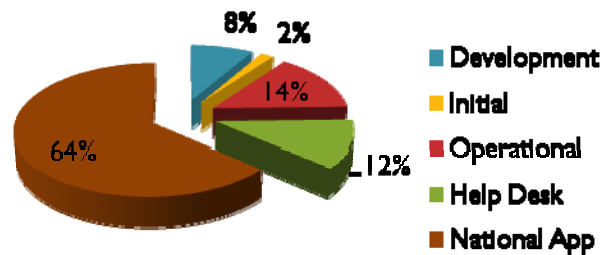
## On Premises



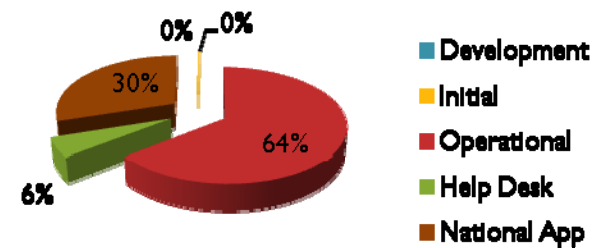
## UNOG/UNICC



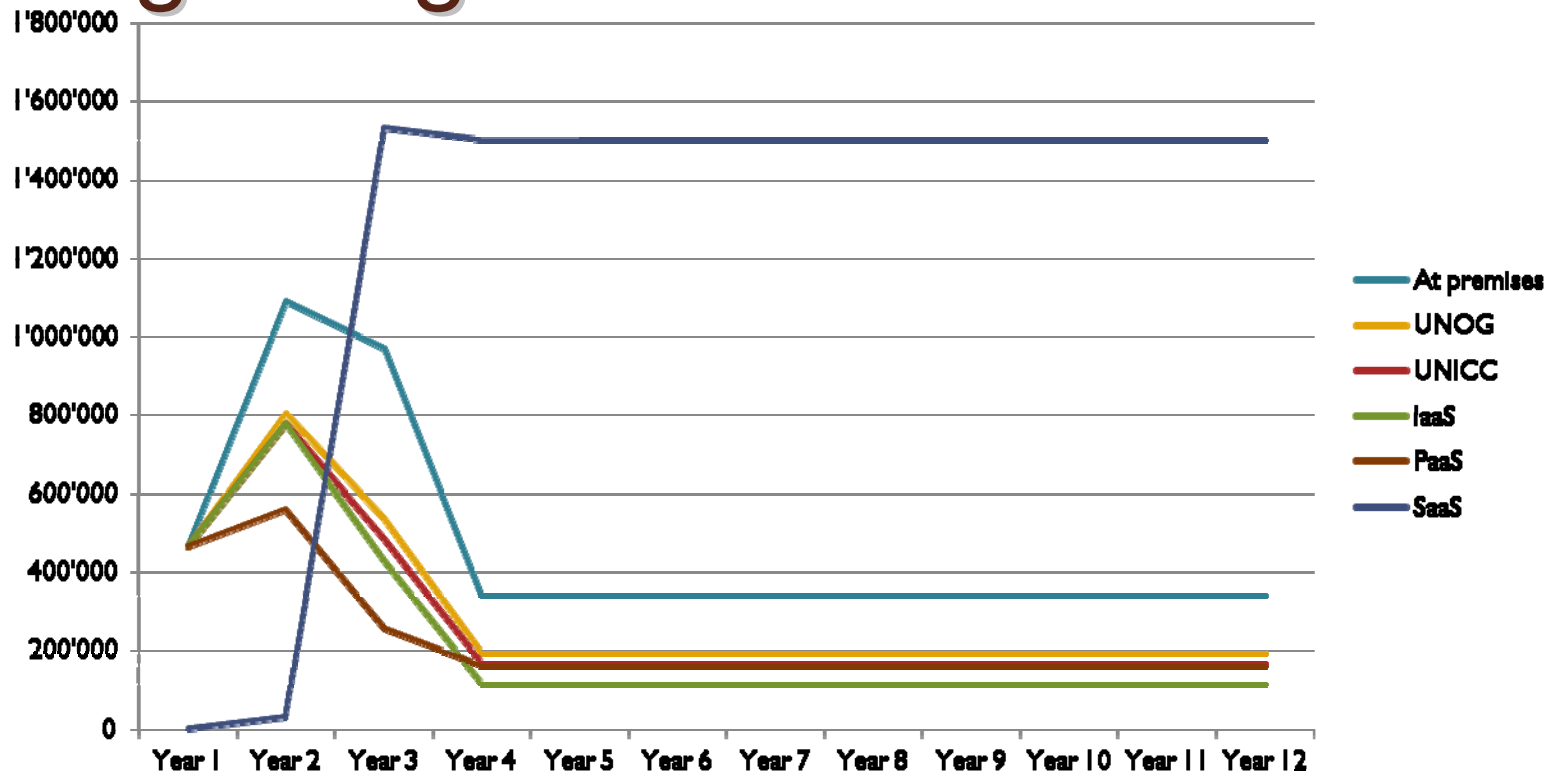
## PAAS/IAAS



## SAAS

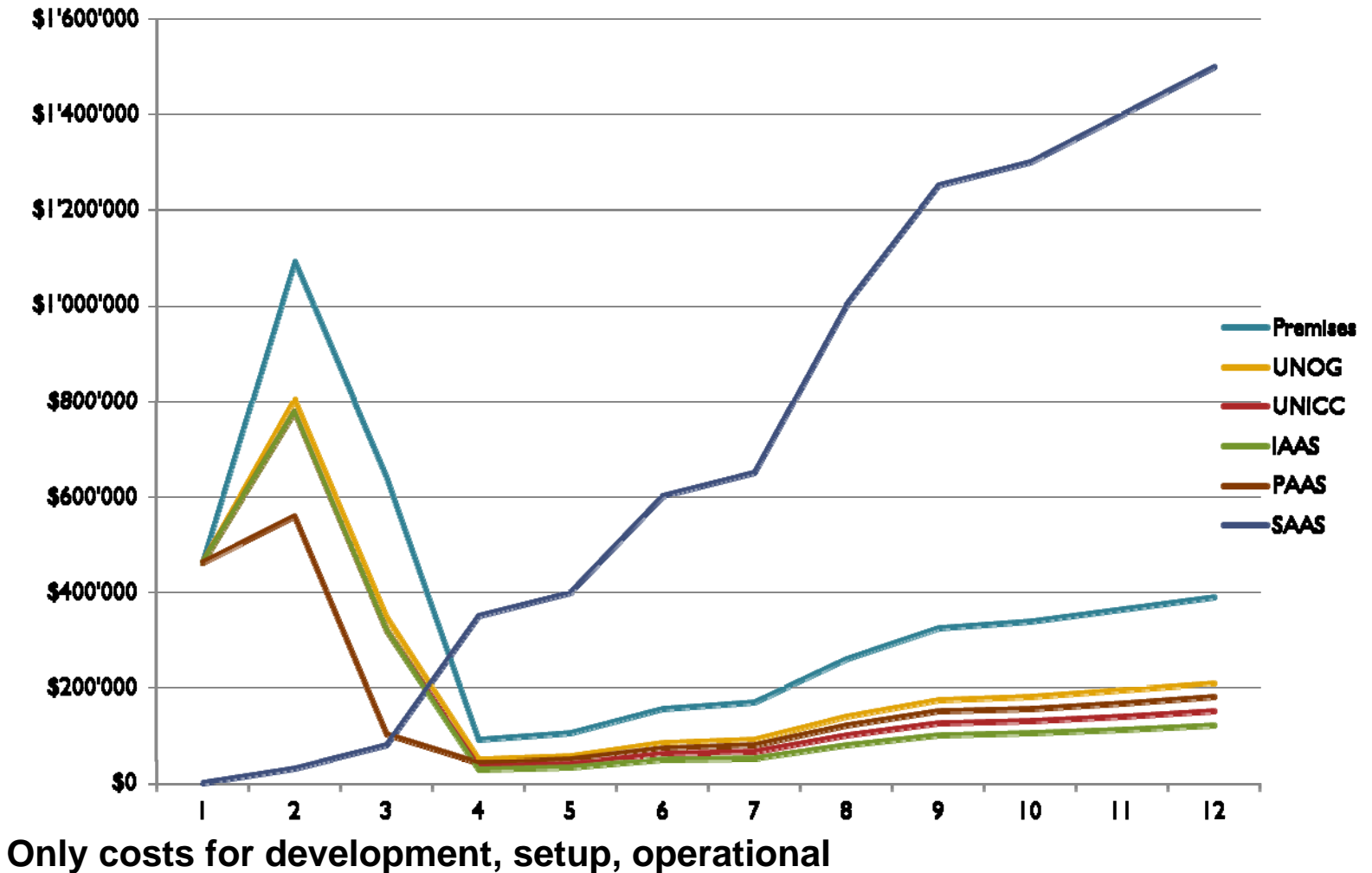


# Evolution of costs, eTIR launched in all countries from the beginning



Only costs for development, setup, operational

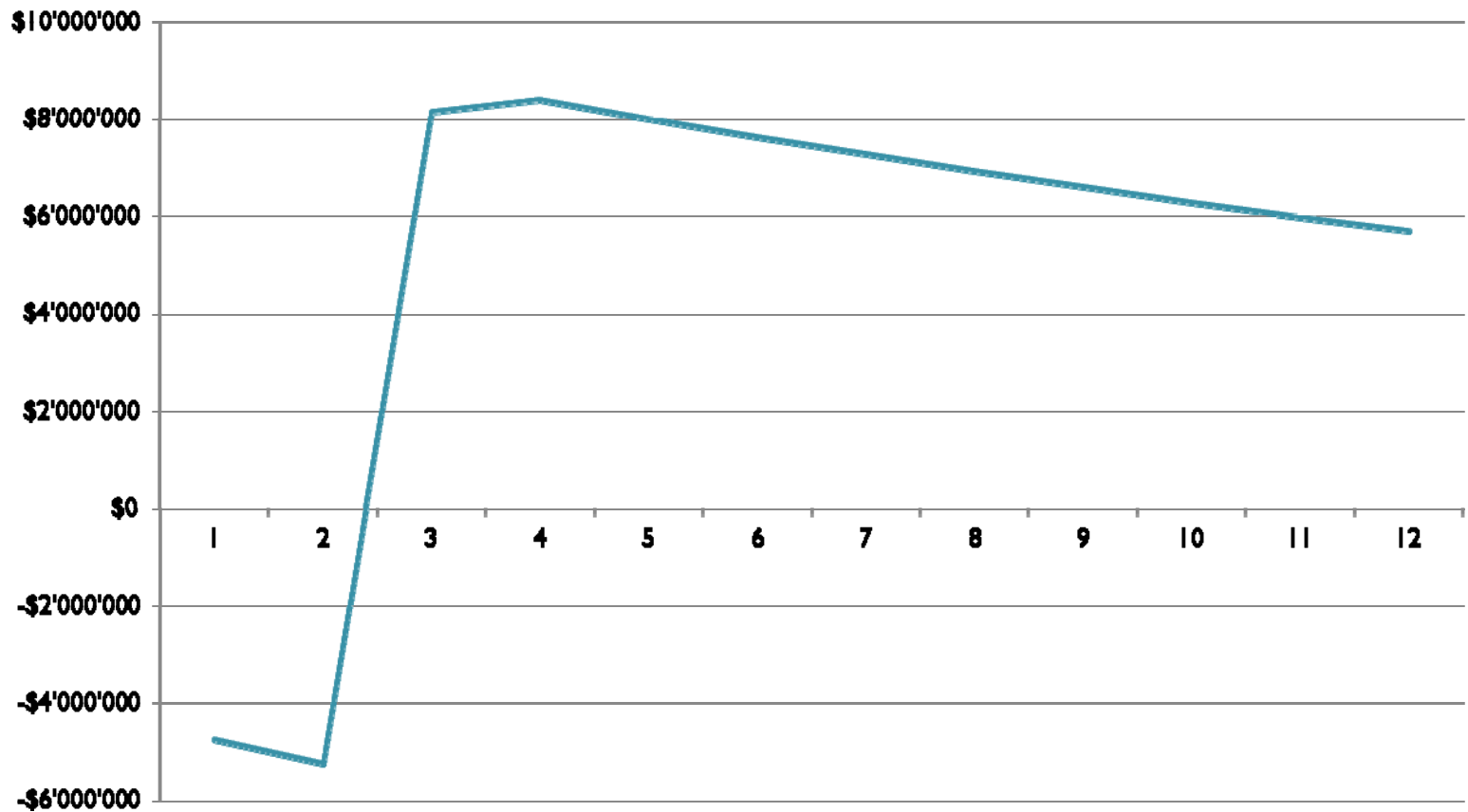
# Evolution of costs, eTIR gradually distributed



# Benefits

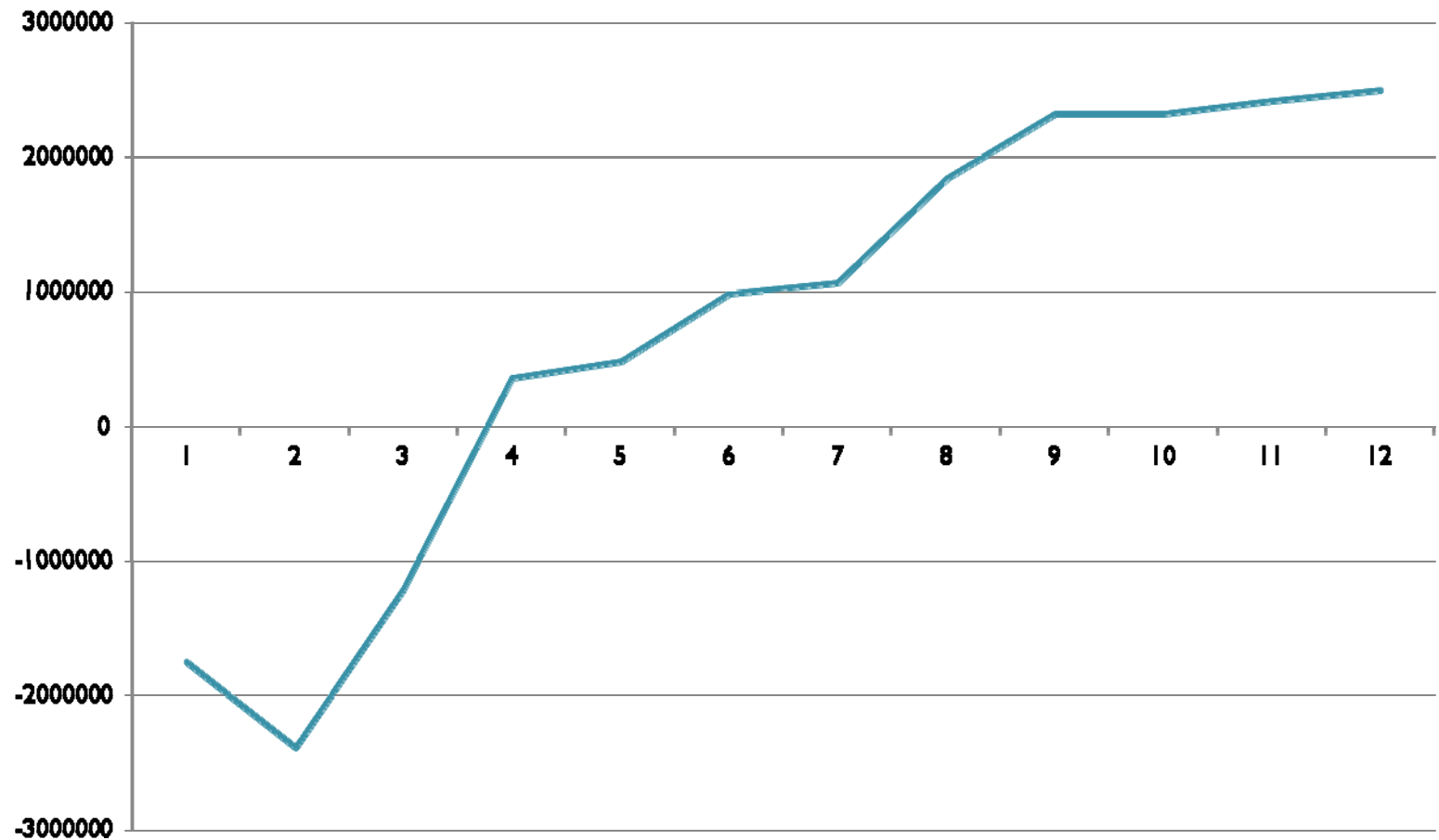


# Cash Flow, On Premises implementation, simultaneously launched



# Cash Flow, On Premises implementation, gradually launched

**Cash Flow Customs**



# Costs/Benefits, eTIR launched in all countries from the beginning

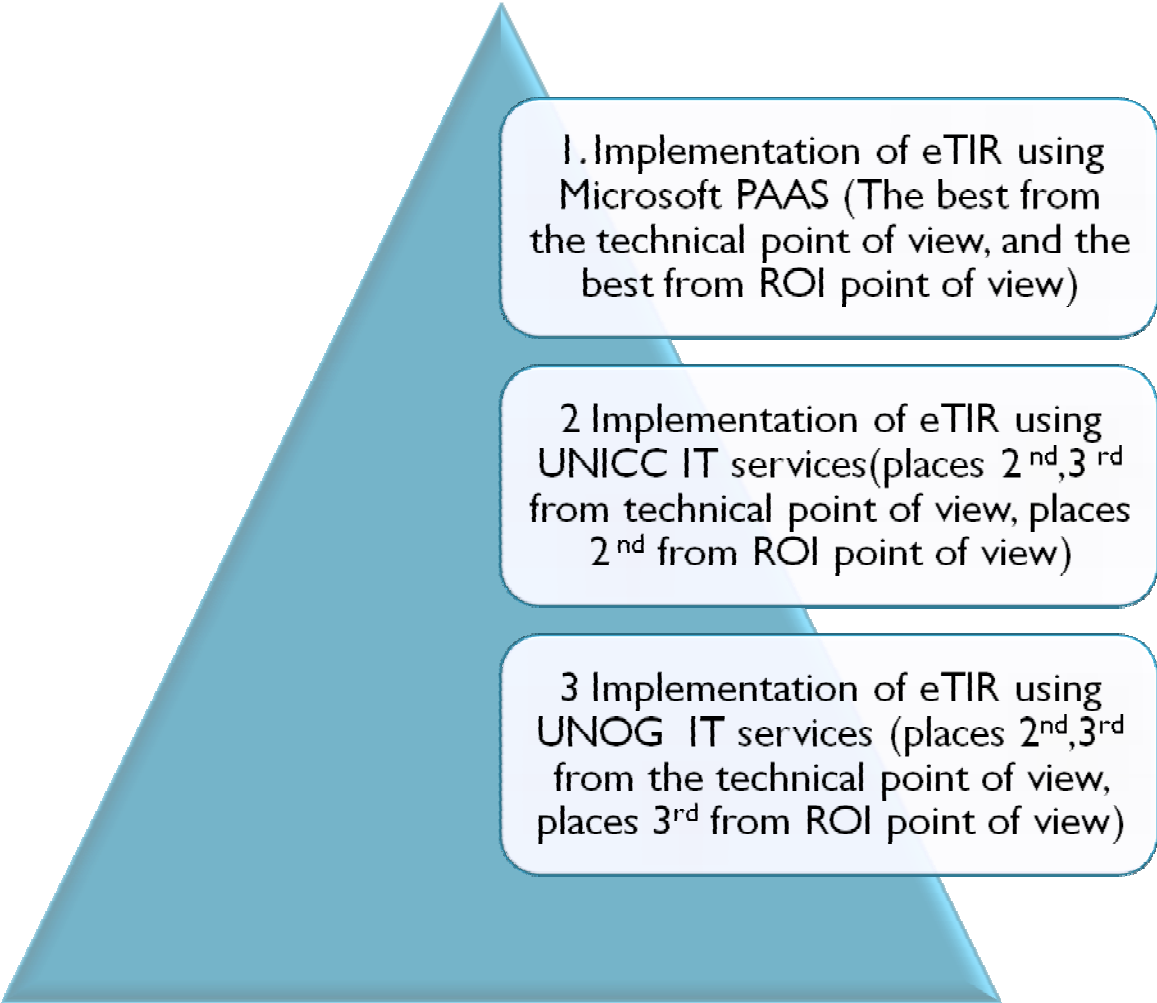
		Premises	UNOG	UNICC	PAAS	IAAS	SAAS
Costs	<b>Total Dev, Operationa;</b>						
	Development	\$924,800	\$924,800	\$924,800	\$924,800	\$924,800	\$0
	Initial	\$1,255,000	\$681,500	\$632,000	\$192,000	\$632,000	\$60,000
	Operational	\$3,404,190	\$1,947,390	\$1,677,190	\$1,591,160	\$1,134,020	\$15,000,000
	Operational;	\$5,583,990	\$3,553,690	\$3,233,990	\$2,707,960	\$2,690,820	\$15,060,000
	Help Desk	\$1,286,300	\$1,286,300	\$1,286,300	\$1,286,300	\$1,286,300	\$1,286,300
	National App	\$7,006,205	\$7,006,205	\$7,006,205	\$7,006,205	\$7,006,205	\$7,006,205
<b>Total Costs</b>		\$13,876,495	\$11,846,195	\$11,526,495	\$11,000,465	\$10,983,325	\$23,352,505
<b>Total Costs (including 20% risk factor)</b>		\$16,651,794	\$14,215,434	\$13,831,794	\$13,200,558	\$13,179,990	\$28,023,006
<b>Discounted Costs</b>		\$14,830,024	\$12,904,598	\$12,610,927	\$12,044,122	\$12,131,588	\$22,646,607
<b>Benefits for Customs (including 20% risk factor)</b>		\$102,872,730	\$102,872,730	\$102,872,730	\$102,872,730	\$102,872,730	\$102,872,730
<b>Total Benefits (including 20% risk factor)</b>		\$416,130,910	\$416,130,910	\$416,130,910	\$416,130,910	\$416,130,910	\$416,130,910
<b>Discounted Customs Benefits</b>		\$75,652,948	\$75,652,948	\$75,652,948	\$75,652,948	\$75,652,948	\$75,652,948
<b>Discounted Overall Benefits</b>		\$306,024,056	\$306,024,056	\$306,024,056	\$306,024,056	\$306,024,056	\$306,024,056
<b>ROI for Customs</b>		410%	486%	500%	528%	524%	234%
<b>Overall ROI</b>		1964%	2271%	2327%	2441%	2423%	1251%
<b>Net present value</b>		\$214,622,370	\$216,547,796	\$216,841,468	\$217,408,272	\$217,320,807	\$206,805,788



# Evolution of costs, eTIR gradually distributed

		Premises	UNOG	UNICC	PAAS	IAAS	SAAS
Costs	Total Dev, Operational;	\$0	\$0	\$0	\$0	\$0	\$0
	Development	\$924,800	\$924,800	\$924,800	\$924,800	\$924,800	\$0
	Initial	\$1,255,000	\$681,500	\$632,000	\$192,000	\$632,000	\$60,000
	Operational	\$2,210,000	\$1,190,000	\$850,000	\$1,020,000	\$680,000	\$8,500,000
	Total Dev, Operationa;	\$4,389,800	\$2,796,300	\$2,406,800	\$2,136,800	\$2,236,800	\$8,560,000
	Help Desk	\$1,286,300	\$1,286,300	\$1,286,300	\$1,286,300	\$1,286,300	\$1,286,300
National App	\$7,006,025	\$7,006,025	\$7,006,025	\$7,006,025	\$7,006,025	\$7,006,025	
<b>Total Costs</b>		\$12,682,125	\$11,088,625	\$10,699,125	\$10,429,125	\$10,529,125	\$16,852,325
<b>Total Costs (including 20% risk factor)</b>		\$15,218,550	\$13,306,350	\$12,838,950	\$12,514,950	\$12,634,950	\$20,222,790
<b>Discounted Costs</b>		\$12,176,220	\$10,706,503	\$10,374,647	\$10,022,078	\$10,236,332	\$14,877,363
<b>Benefits for Customs (including 20% risk factor)</b>		\$31,094,545	\$31,094,545	\$31,094,545	\$31,094,545	\$31,094,545	\$31,094,545
<b>Total Benefits (including 20% risk factor)</b>		\$235,807,515	\$235,807,515	\$235,807,515	\$235,807,515	\$235,807,515	\$235,807,515
<b>Discounted Customs Benefits</b>		\$21,082,654	\$21,082,654	\$21,082,654	\$21,082,654	\$21,082,654	\$21,082,654
<b>Discounted Overall Benefits</b>		\$159,881,683	\$159,881,683	\$159,881,683	\$159,881,683	\$159,881,683	\$159,881,683
<b>ROI for Customs</b>		73%	97%	103%	110%	106%	42%
<b>Overall ROI</b>		1213%	1393%	1441%	1495%	1462%	975%
<b>Net present value</b>		\$97,727,915	\$99,197,632	\$99,529,488	\$99,882,057	\$99,667,804	\$95,026,772

# Best architectural solutions



1. Implementation of eTIR using Microsoft PAAS (The best from the technical point of view, and the best from ROI point of view)

2 Implementation of eTIR using UNICC IT services (places 2<sup>nd</sup>, 3<sup>rd</sup> from technical point of view, places 2<sup>nd</sup> from ROI point of view)

3 Implementation of eTIR using UNOG IT services (places 2<sup>nd</sup>, 3<sup>rd</sup> from the technical point of view, places 3<sup>rd</sup> from ROI point of view)

# Recommendations



It is better to implement eTIR as soon as possible, in order to increase the benefits it can offer.



The gradually distributed alternative is more convenient from the costs point of view.



The Big-Bang (start all eTIR carnets from the beginning) is the most convenient from the ROI point of view.



# Thank You