

# Beacon Manufacturers Workshop

Portsmouth, Va  
20 September 2019

## RESULTS OF THE 2019 BEACON MANUFACTURERS SURVEY

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# Results of the 2019 Survey of Beacon Manufacturers

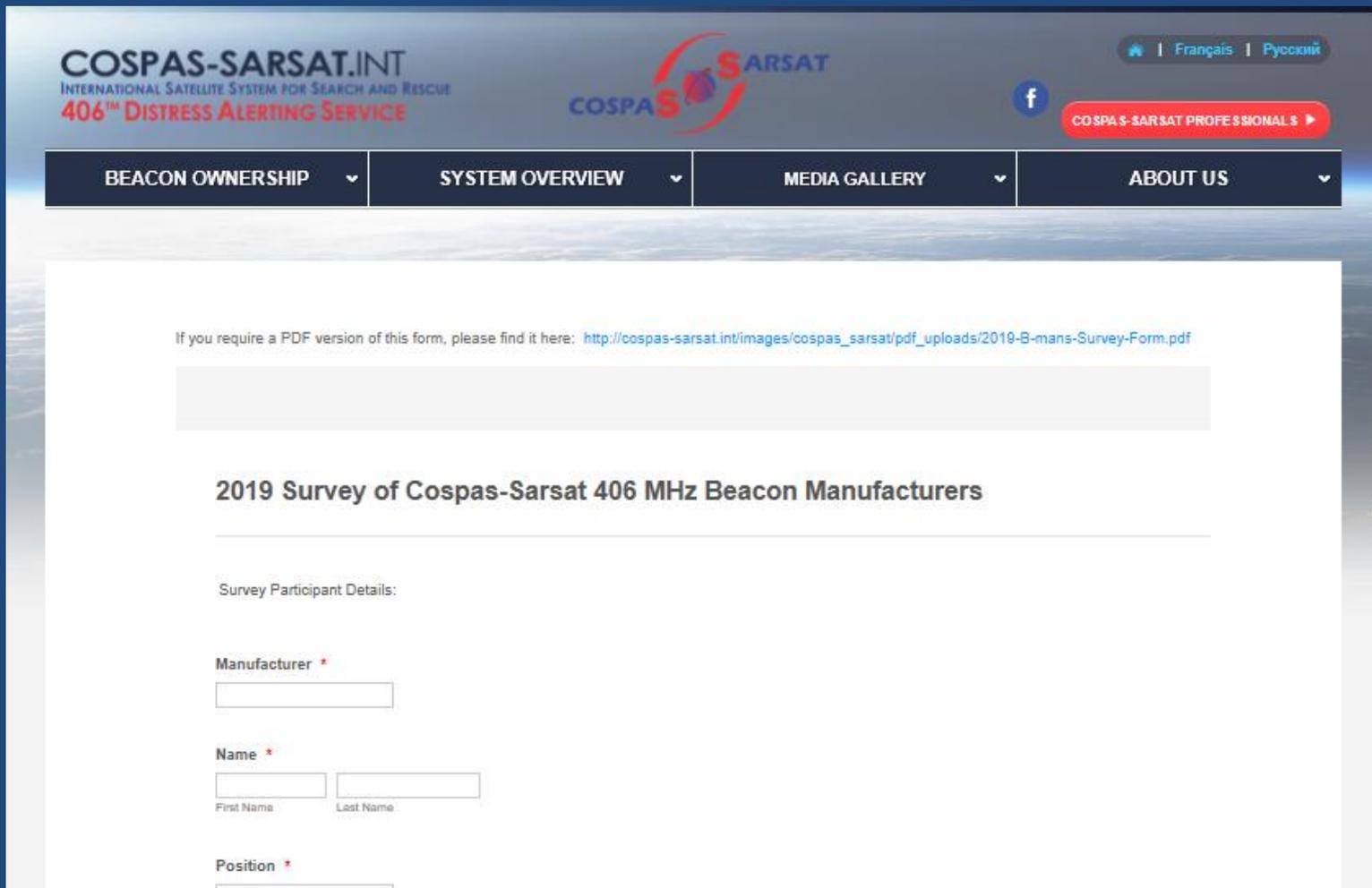
# 2019 Survey - Participants

- conducted by the Cospas-Sarsat Secretariat since 1991, annually;
- **47** beacon manufacturers participated in the survey;
- geographical distribution of participating manufacturers:
  - Europe: **36%**
  - USA and Canada: **32%**
  - Asia and Australia: **32%**

## New in the 2019 Survey

- Better structured and more detailed survey form:
  - detailed beacon types and categories
    - ELT: (AF), (AD), (AP), (S), (DT)
    - EPIRB: FF, Non FF, VDR
  - questions about production of and plans for new beacon types:
    - SGBs, ELT(DT)s, RLS
- Additional Web-submission method
  - Higher efficiency for submission
  - Higher efficiency and reliability thanks to automation of data collection and processing

# New in 2019 Survey – Web based forms



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BEACON OWNERSHIP ▼ SYSTEM OVERVIEW ▼ MEDIA GALLERY ▼ ABOUT US ▼

If you require a PDF version of this form, please find it here: [http://cospas-sarsat.int/images/cospas\\_sarsat/pdf\\_uploads/2019-B-mans-Survey-Form.pdf](http://cospas-sarsat.int/images/cospas_sarsat/pdf_uploads/2019-B-mans-Survey-Form.pdf)

## 2019 Survey of Cospas-Sarsat 406 MHz Beacon Manufacturers

Survey Participant Details:

Manufacturer \*

Name \*

First Name Last Name

Position \*

<http://cospas-sarsat.int/en/documents-pro/beacon-manufacturer-survey-2019>

# 2019 Survey Submissions

Submission methods used in the 2019 survey:

- 40% - web submission
- 56% - email
- 2% - fax
- 2% provided responses over the phone

## 2019 Survey Highlights

47 % of beacon manufacturers reported an increase in the annual production volumes in 2018 (42% in 2017).

In 2018-19, **three** new beacon manufacturers informed Cospas-Sarsat of their plans to develop and seek type approval for their new beacon models (5 new manufacturers in 2017-18).

# 2019 Survey Highlights



- 6 manufacturers (12.6 % of all respondents) reported 'zero' production in 2018,
- 19 manufacturers (40.4% of all respondents) produced in 2018 1-499 and less units;
- 21 manufacturers (47% of all respondents) had a 2018 production of 500 units and more;
- In 2018: **199,651** beacons were manufactured (8.4 % annual decrease from 2017 vs planned increase of ~ 17 %).



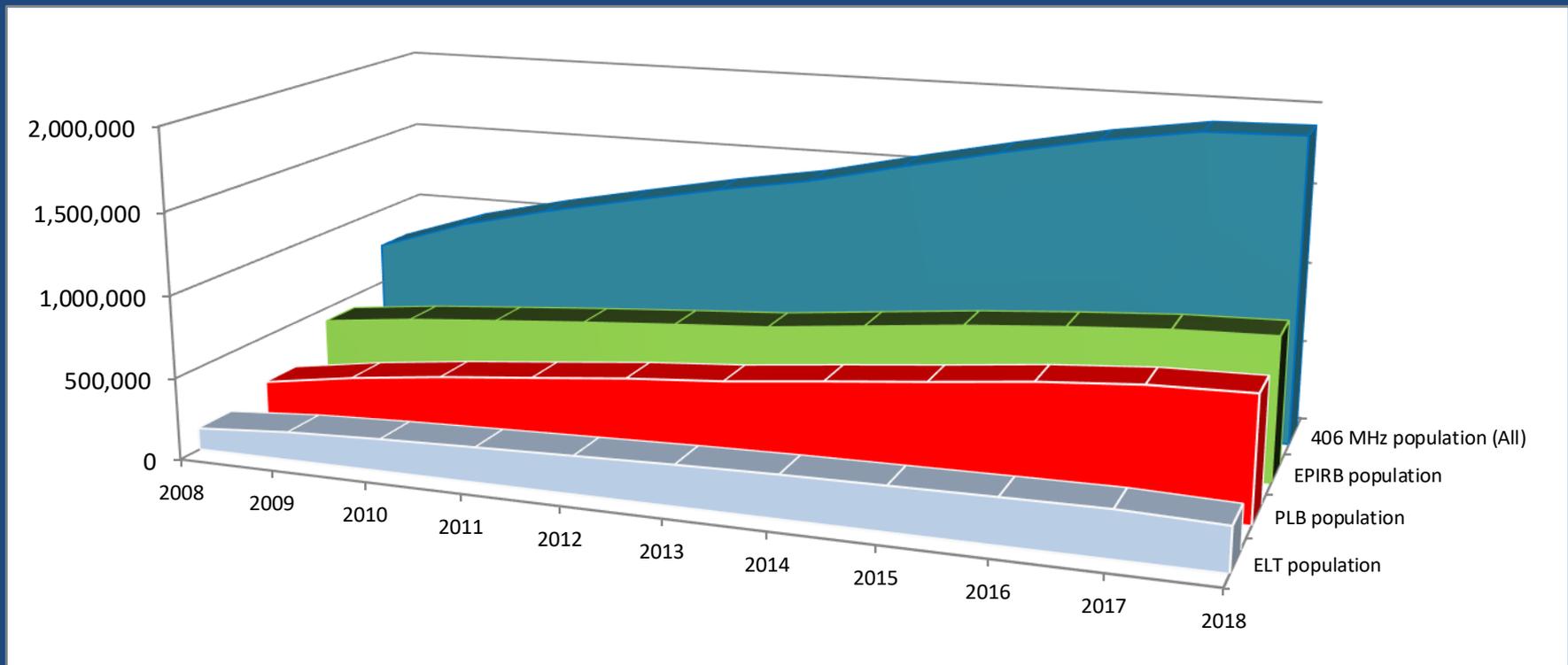
# 2019 Survey – Detailed Beacon Distribution



Beacon type	2018	% of Total Beacon Type	% of Global Production Total
	Global Production, units		
Total ELTs , Including:	24,863	100%	12.5%
- ELT(AF)	16,890	67.9%	8.5%
- ELT(AP)	868	3.5%	0.4%
- ELT(AD) and ELT(S)	7,105	28.6%	3.6%
- ELT(DT)	0	0.0%	0.0%
Total EPIRBs, including:	95,434	100%	47.8%
- EPIRB Float Free and EPIRB VDR	46,513	48.7%	23.3%
- EPIRB Non-Float Free	48,921	51.3%	24.5%
Total PLBs	79,354	100%	39.7%
Total of Global Production for all beacon types	199,651	100%	100.0%

# Estimated Global Beacon Population at the end of 2018

- **About 1,892,000** beacons were in use at the end of **2018**
- Annual increase in global beacon population: **~ 1%**



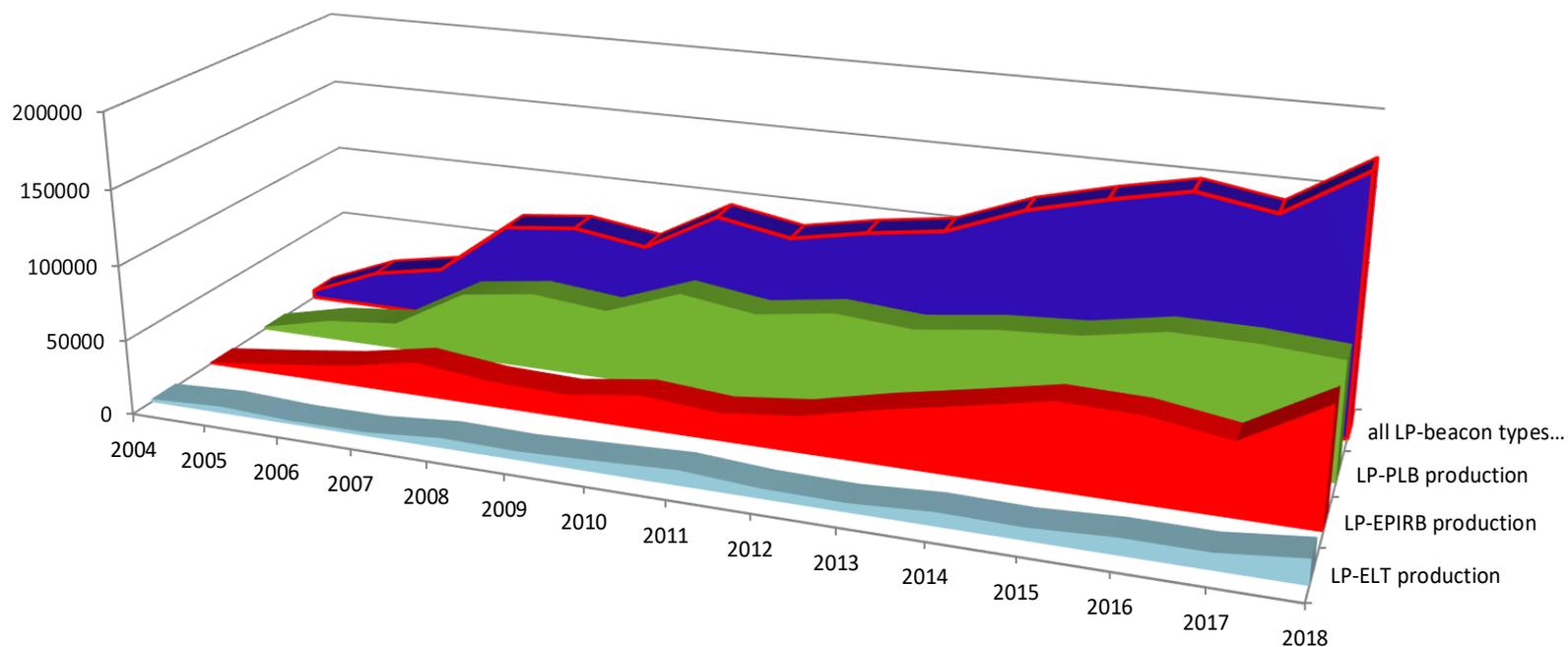
# Beacon population estimate as a function of Life-Cycle Assumption

Beacon Type	Beacon life cycle (current CSS model), years	Median life cycle (surveys 2019/2018), years	Weighted* life cycle (surveys 2019/2018), years
EPIRB	10	9/8	9/9
PLB	10	8/8	7/7
ELT	10	<b>15/10</b>	<b>17/16</b>
ALL beacon types	10	<b>10</b>	<b>9/9</b>
Estimated Global population	<b>~ 1,985,000</b>		<b>~ 2,029,000</b>

Note: Weighted life span was calculated with the formula:  $\sum (L_i \times W_i) / \sum W_i$ , where:

- ▲ -  $L_i$  is the life span for a beacon type stated by the  $i$ -th beacon manufacturer, and
- $W_i$  (weighting factor) is the 2018 production of a beacon type, as reported by the  $i$ -th beacon manufacturer.

# Location Protocol Beacons Production Trends (2004 – 2018)



Beacon Type	Production of LP-beacons in 2018, units	Ratio of LP-beacons to all beacons produced in 2018, %	Ratio to all LP-beacons, %
<b>EPIRBs</b>	79,094	83%	45.3%
<b>PLBs</b>	78,865	99%	45.2%
<b>ELTs</b>	16,463	66.21%	9.4%
<b>All 406 MHz Beacon Types</b>	<b>174,422</b>	<b>87.36%</b>	<b>100.0%</b>

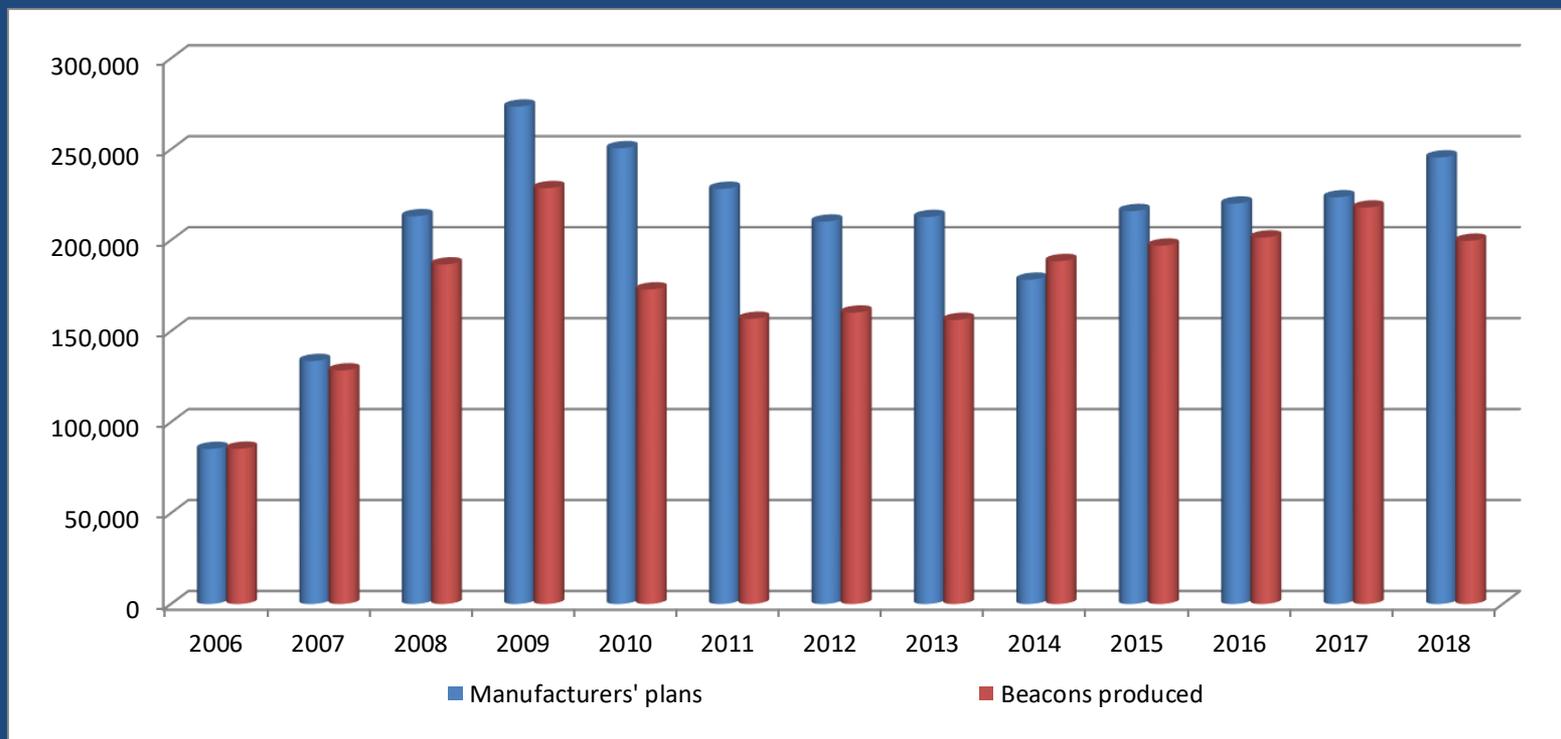
# Location Protocol Beacons – end of 2018 estimated population

	Estimated Population of all beacon	Estimated Population of LP-beacons	Ratio of LP-beacons to all beacons deployed globally
EPIRBs	874,710	407,805	46.6%
PLBs	754,222	690141	91.5%
ELTs	262,958	82426	31.3%
All Beacon Types	1,891,890	1,099,633	58.1%

## Manufacturers' Plans for 2019

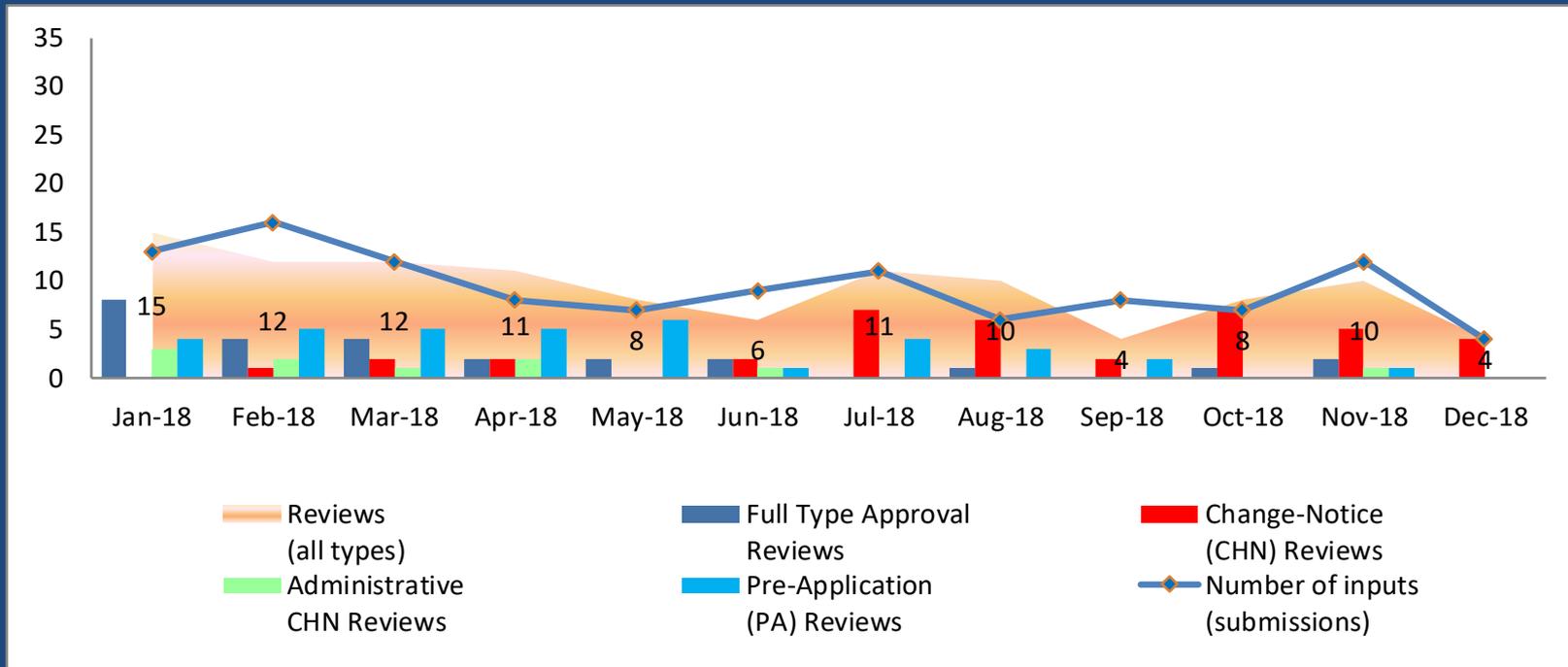
- Manufacturers plan to produce ~ **209,600 new** beacons in **2019** (+ 5 % over the 2018 production volume), including:
  - 82,000 new EPIRBs,
  - 26,000 new ELTs,
  - 102,000 PLBs.
- In **2019**, an estimated global population of 406 MHz (FGB) beacons : **1,873,000 units**

# Beacon Manufacturers' Forecasts and Actual Annual Production Trends



Beacon Type	Manufacturers' Forecast for 2018	Actual Production in 2018	Actual over Forecast Discrepancy, %
All beacon types	245,000	199,700	-18.5%

# Type Approval Activity in 2018



In 2018, the Secretariat performed 117 reviews of type-approval submissions, including:

- 28 full type approvals,
- 40 change notices (non-administrative),
- 11 administrative change notices,
- 38 pre-applications.

## **For more information...**

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**Thank you !**