**Draft Outline of 2016 HIR**

**This draft has 19 technical working groups. I think it will keep the task to a manageable size for TWG leaders and ensure Roadmap coverage for the most important sections. It is proposed that each chapter will be included as in the outline below.**

# Introduction

# Mission statement

# Scope

## Difficult Challenges

## Heterogeneous Integration Components

### Single chip and multi chip packaging (Including substrates)

Separate TWG Chapter

### Integrated Photonics (including plamonics)

Separate TWG Chapter

### Integrated Power devices

Separate TWG Chapter

### MEMS

Separate TWG Chapter

### RF and Analog Mixed Signal

Separate TWG Chapter

## Cross Cutting topics

### Emerging Research Materials

Separate TWG Chapter

### Emerging Research Devices

Separate TWG Chapter

### Interconnect

Separate TWG Chapter

### Test

Separate TWG Chapter

Supply Chain

Separate TWG Chapter

## Integration Processes

### SiP

Separate TWG Chapter

### 3D +2.5D

Separate TWG Chapter

### WLP (fan in and fan out)

Separate TWG Chapter

## Packaging for Specialized Applications

### Mobile

Separate TWG Chapter

### IoT & Wearable

Separate TWG Chapter

### Medical & Health

Separate TWG Chapter

### Automotive

Separate TWG Chapter

### High Performance Computing

Separate TWG Chapter

### Aerospace & Defense

Separate TWG Chapter

## Co-Design

### Co-design, modeling and Simulation

**These Technical Working Groups are all focused on heterogeneous integration of diverse components and materials as it related to their Chapter.**